DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
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State Demonstrations Group

November 3, 2025

Trinity Wilson
Interim Medicaid Director
Washington State Health Care Authority
626 8th Avenue SE
P.O. Box 45502
Olympia, WA 98504

Dear Director Wilson:

The Centers for Medicare & Medicaid Services (CMS) completed its review of the Medicaid Transformation Project Summative Evaluation Report, which is required by the Special Terms and Conditions (STCs), specifically STC #123.b "Final Evaluation Report" of Washington's section 1115 demonstration, "Washington State Medicaid Transformation Project" (Project No: 11-W-00304/0). The demonstration was approved on January 9, 2017, and effective through December 31, 2022. This Summative Evaluation Report covers the period from January 2017 through December 2022. CMS determined that the Evaluation Report, submitted on July 25, 2024, and revised on May 16, 2025, is in alignment with the CMS-approved Evaluation Design and the requirements set forth in the STCs, and therefore, approves the state's Summative Evaluation Report.

Through the application of a rigorous evaluation methodology, Washington's Medicaid Transformation Project demonstrated measurable progress in advancing integrated care, expanding access to housing and employment supports, and strengthening the state's capacity for substance use disorder and behavioral health treatment. At the same time, challenges related to sustainability, workforce capacity, and administrative complexity moderated some outcomes.

The evaluation underscores the importance of tailored regional supports, robust community engagement, and sustained investment as Washington builds upon these achievements under Medicaid Transformation Project 2.0. By embedding supported employment initiatives within the new federally mandated community engagement frameworks, Washington has the opportunity to serve as a national leader in advancing a sustainable, evidence-based approach to work participation that promotes alignment across health coverage, behavioral health recovery, and social reintegration.

The approved Evaluation Report may now be posted to the state's Medicaid website. CMS will also post the Summative Evaluation Report on Medicaid.gov.

We appreciated our partnership on the Washington State Medicaid Transformation Project and look forward to our continued partnership with the ongoing Washington section 1115 demonstrations. If you have any questions, please contact your CMS demonstration team.

Sincerely,

DANIELLE DALY -S

Digitally signed by DANIELLE DALY -S
Date: 2025.11.03 09:34:55 -05'00'

Danielle Daly
Director
Division of Demonstration Monitoring and Evaluation

cc: Edwin Walaszek, State Monitoring Lead, CMS Medicaid and CHIP Operations Group

Medicaid Transformation Project Summative Evaluation

FINAL REPORT

June 30, 2024

CENTER FOR HEALTH SYSTEMS EFFECTIVENESS

Prepared for:
Washington State Health Care Authority

OHSU

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About Us

The Center for Health Systems Effectiveness at Oregon Health & Science University is a research organization that uses economic approaches and big data to answer pressing questions about health care delivery. Our mission is to provide the analyses, evidence, and economic expertise to build a more sustainable health care system. CHSE's publications do not necessarily reflect the opinions of its clients and funders.

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Roadmap to The Report

PREFACE: MTP INTRODUCTION AND BACKGROUND

We outline the goals of Washington's 1115 Medicaid wavier and describe evaluation activities, including evaluation hypotheses, data, and methods. We also present a overview of how to interpret tables in this report and a compiled list of acronyms frequently used across the report. An Executive Summary proceeds this section.

SECTION ONE

CHAPTER 1: STATEWIDE PERFORMANCE UNDER DSRIP

We describe the performance of Washington State's Medicaid system under DSRIP across the demonstration period across 51 performance measures organized into eleven domains. We analyze statewide change in each metric over time and provide a detailed look at each measure disaggregated into priority subpopulations.

CHAPTERS 5-14: ACH HEALTH IMPROVEMENT PROJECTS

In Chapter 5, we provide an overview of Washington's nine Accountable Communities of Health (ACH). We present a summative evaluation of eight ACH Health Improvement Projects in Chapters 6-13. Chapter 14 synthesizes factors that influenced health improvement work across MTP Initiative 1.

CHAPTERS 2-4: MTP'S IMPACT ON VALUE-BASED PAYMENT ADOPTION, HEALTH CARE WORKFORCE CAPACITY, AND HEALTH INFORMATION TECHNOLOGY USE

In Chapter 5, we provide an overview of Washington's nine Accountable Communities of Health (ACH). We present a summative evaluation of eight ACH Health Improvement Projects in Chapters 6-13. Chapter 14 synthesizes factors that influenced health improvement work across MTP Initiative 1.

SECTION TWO

CHAPTER 15: TAILORED SUPPORTS FOR OLDER ADULTS AND MEDICAID ALTERNATIVE CARE

We present an interim evaluation of MTP Initiative 2, Medicaid Alternative Care (MAC) and Tailored Supports for Older Adults (TSOA). We assess MAC and TSOA participants' health care outcomes compared with participants in traditional Medicaid long-term services and supports.

SECTION THREE

CHAPTER 16: FOUNDATIONAL COMMUNITY SUPPORTS

We present results of an interim evaluation of MTP Initiative 3, Foundational Community Supports (FCS). We describe the implementation of FCS using qualitative data and examine enrollment trends across the demonstration period. Using administrative data from Washington State, we compare social and health outcomes of FCS participants before and after enrollment to a matched comparison group of Medicaid beneficiaries.

SECTION FOUR

CHAPTER 17: SUBSTANCE USE DISORDER WAIVER AMENDMENT

We describe progress since the implementation of the amendment in 2018. We present changes in outcomes for Apple Health enrollees from the 2017 baseline period through 2022.

SECTION FIVE

CHAPTER 18: SERIOUS MENTAL ILLNESS WAIVER AMENDMENT

We describe implementation progress since the implementation of the amendment in 2020. We present changes in outcomes for Medicaid beneficiaries from 2020 through 2022.

SECTION SIX

CHAPTER 19: INTEGRATED MANAGED CARE EFFORTS IN WASHINGTON

We provide an overview of Washington's efforts between 2017 and 2023 to integrate behavioral health and physical health care.

CHAPTER 20 SUMMATIVE EVALUATION CONCLUSIONS AND RECOMMENDATIONS

We summarize this report's findings and provide recommendations for achieving continued progress towards the waiver's goals in MTP 2.0.

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MTP Summative Evaluation Synthesized Key Findings and Recommendations

Below, we synthesize key findings and recommendations across the full Medicaid Transformation Project (MTP) Summative Evaluation Report.

Integration of services and care coordination

An overarching theme in MTP has been efforts to break down silos and integrate care across a variety of domains. Arguably, the ACH Health Improvement Projects (HIPs) initiative may have been the largest direct investment by any state to address health care outside of the clinical domain. In carrying out their HIPs, ACHs were required to include local public health jurisdictions, Tribes or Indian Health Care Providers, and community-based organizations that provide services that address the social determinants of health — including, but not limited to, transportation, housing, employment, education, and criminal justice — in their decision-making bodies.

The theme of integration was central to Foundational Community Supports (FCS), which supports Apple Health enrollees with complex health issues in achieving stable housing and employment, offering services such as coaching, advocacy, and ongoing support. This approach was intended to address the cyclical relationship between health conditions, homelessness, and unemployment, recognizing that stable employment and housing significantly improve an individual's overall well-being and quality of life.

MTP also included initiatives to integrate behavioral health with general physical health care. MTP efforts aligned with a separate statewide effort to integrate behavioral and physical health within MCOs through the Integrated Managed Care (IMC) program. This evaluation and independent studies did not find evidence of substantial changes in access, utilization, or quality associated with the IMC or the MTP efforts to integrate care.

In some cases – such as FCS Employment– the impacts of these efforts were measurable. In other cases – such as behavioral health integration – the efforts laid the groundwork for future change but may not have been enough to catalyze improvements. Challenges included aligning services with payment models, data sharing limitations, and the need for enhanced care coordination at the community level. MTP also served to demonstrate the complexity of implementing change across various settings. There was variability among ACHs in their ability to implement health initiatives, influenced by regional characteristics, available resources, and community partnerships. Washington's Integrated Care Assessment (WA-ICA) holds promise for driving behavioral health integration, but funding for this effort is uncertain. Further progress on integration is likely to require additional investments in training, monitoring progress, or incentive payments.

Workforce development and capacity building

Persistent workforce shortages hinder service delivery, particularly in behavioral health and primary care. The COVID-19 PHE exacerbated existing shortages while creating a greater need for services. To ensure that Apple Health enrollees can access needed services, the state will need to address critical workforce shortages through

targeted state-level initiatives that focus on training, recruitment, and retention strategies, particularly for underserved regions and high-need sectors like primary care and behavioral health. Policies to improve workforce shortages should also target the negative impacts of inadequate financial and workplace support on the daily work environment.

Health information technology gaps and opportunities

Despite advancements, substantial gaps in HIT integration persist, especially in data sharing between behavioral health, social services, and traditional health care providers. The diversity of HIT platforms, the regional focus of ACHs, and the mixed engagement of community-based partners in existing platforms continued to impede the expansion of cross-organization HIT capabilities. Despite these challenges, MTP was pivotal in identifying and filling HIT-related gaps, with ACHs providing much-needed support to behavioral health organizations adopting and facilitating the adoption of tools like PointClickCare to identify patients at risk of ED visits or rehospitalization. Building on the successes of enhanced HIT capabilities, the state should continue to invest in technology solutions that support collaborative care, such as electronic health records, telehealth platforms, and electronic referral systems. These efforts should align with the planned Community Information Exchange (CIE) program that would standardize CIE technologies and bind platforms across the state. This functionality will be critical for the Community Hubs of MTP 2.0.

Social risk, social determinants, and health-related social needs

The ACH HIPs and initiatives like FCS demonstrate the critical role of addressing social determinants of health (SDOH), such as housing and employment, in improving health outcomes. Washington has been a leader in factoring in SDOH into the design of its Apple Health program.

However, scaling and sustaining these efforts require ongoing commitment, evaluation, and funding. Despite the intuitive role of SDOH in improving health outcomes, the evidence base for interventions that improve health outcomes by addressing social risks remains underdeveloped. Successful implementation and scalability require navigating issues like the complexity of integrating medical and non-medical services and establishing effective partnerships with community organizations. These partnerships often necessitate novel contracting types, expanded referral networks, and increased administrative capacities, which complicate the rapid deployment of services. Moreover, delineating Medicaid's role in addressing broader social challenges, such as housing shortages, is essential, as some necessary reforms may exceed Medicaid's scope.

Washington has committed to furthering its work to address health-related social needs as part of MTP 2.0. The state should foster solid, trust-based partnerships between health systems and community-based organizations to ensure efficient service delivery and mitigate administrative burdens. Additionally, addressing regulatory barriers and promoting policies that support an adequate supply of resources like housing could be crucial for the success of such initiatives, even though these may fall outside traditional Medicaid frameworks.

Health equity

Notable disparities in health care access and quality persist. Although the size and significance of disparities varied across domains of care and populations, there appear to be persistent disparities, particularly among Black, American Indian, and Alaska Native enrollees. Black enrollees, for example, experience lower rates of well-care and well-child visits, lower rates of access to high-quality mental health care and substance use treatment, and lower quality for the care of chronic conditions. Across 51 quality measures, Black Apple Health enrollees experienced lower quality in 38 measures, and American Indian and Alaska Native Apple Health enrollees experienced lower quality in 37 measures. While there are a variety of disparate efforts designed to address disparities, the state should consider targeted interventions to focus on culturally competent care, improving access to quality health care for specific populations, and enhancing community engagement in health planning and implementation.

The role of payment

The success of health transformations will depend on the effectiveness and flexibility of policies and payment models that support innovative care delivery and integration of non-medical services. More than 80% of Medicaid payments are now VBP arrangements, but there is a need for continued evolution of payment structures to support holistic and preventive care approaches. Most arrangements are focused on primary care, and many have modest financial stakes for providers, which might not be sufficient to encourage changes in their behavior. Providers frequently face challenges due to a lack of access to real-time quality and cost data that are essential for timely interventions. Furthermore, most providers deal with numerous payers, most of whom have not transitioned to VBP models. Experiences from other states suggest that the successful adoption of VBP is greatly enhanced when supported by other policy and programmatic tools that foster care delivery changes.

Medicaid reimbursement rates are consistently a challenge for all states but may be particularly acute for Washington, which receives the lowest federal match for Medicaid and, until recently, had payment rates for mental health services that were lower than the majority of other states.1. Recent legislation aims to raise rates for some providers, including behavioral health and primary care providers and requires MCOs to provide more transparency around their prior authorization policies. These efforts may help improve access and alleviate workforce issues. However, the state should also consider simplifying administrative processes, minimizing reimbursement delays, and reducing the costs associated with caring for socially and medically complex enrollees.

Leveraging multiple IMD waivers

Washington is one of 10 states that has implemented Section 1115 IMD waivers for SUD and SMI. The extent to which these waivers can be used to transform care remains an open question. On one end of the spectrum, IMD waivers may be an administrative mechanism for supporting federal matching funds for residential and inpatient treatment. At their most aspirational, these waivers can catalyze improving the spectrum of behavioral health care, from front-line community-based services to more intensive facility-based services. Our qualitative data suggests that, within IMDs, the SUD and SMI waivers may be synergistic, creating flexibility and capacity that would not have been possible in isolation. Given the frequency with which SMI and addiction co-occur, there may be other opportunities to improve care for these populations. The state should consider convening experts from the residential SMI and SUD settings to identify the best ways to build on these waivers' financial support and milestone requirements.

The potential for a robust and creative response to meeting the state's behavioral health needs

Washington is not alone in facing a behavioral health crisis. However, it may be uniquely positioned for a robust response. The state has long been a pioneer in collaborative care, with the University of Washington developing evidence-based models of integrated care and serving as the home to the Advancing Integrated Mental Health Solutions Center. HCA has led a suite of efforts designed to integrate behavioral and physical health care, including the IMC initiative, HIPs that focused on integration, and the establishment of Certified Community Behavioral Health Clinics, which integrate physical health care into behavioral health settings.

Further strengthening its position, Washington is among only ten states implementing SUD and SMI IMD waivers, enhancing service coverage for individuals who need residential treatment. Washington's legislature has passed several laws designed to improve mental health services, including legislation to support the 988 hotline and new funds to enhance and raise payment rates for behavioral health services. Within the Apple Health program, Washington's data capabilities are among the best in the country and particularly well-suited to assess behavioral health. Additionally, initiatives like the Washington Partnership Access Line, which makes child and adolescent

psychiatrists available to consult with primary care providers, serve as innovative ways to meet the needs of the community. With its rich set of strategies and resources, Washington has unusual opportunities to respond forcefully to the behavioral health crisis.

The value of a clearly articulated vision

Changing the health care system is difficult. MTP 1.0 represented a novel and ambitious approach designed – literally – to transform Washington's Apple Health program. MTP 1.0 represented a comprehensive approach to reform, including acute and long-term care, multiple components and actors, and spanning traditional medical care and SDOH. Numerous initiatives show promise, and MTP 1.0 is responsible for creating the infrastructure, organizations, and opportunities for convening to help the state deliver on the goals of MTP 2.0.

The transition from MTP 1.0 to MTP 2.0 offers an important opportunity for the state to step in and provide a vision for the future. One concern about the current approach is that the waiver design consists of multiple components but lacks a unified strategic direction and accountability to ensure that all actors understand their roles and responsibilities. Without a cohesive framework and defined accountability, the risk of disjointed service delivery and inefficiencies increases significantly, undermining the potential effectiveness of the various initiatives.

Washington is among a handful of states that can tell a compelling story about its approach to Medicaid, highlighting its role as a national leader in reforming Medicaid and creating an ambitious Apple Health model that touches a broad range of services, needs, and populations. Articulating a clear vision can inspire, direct attention, and identify priorities, all of which are critical in helping the state achieve its goals. Efforts to create cohesion, accountability, and mechanisms to prioritize initiatives have the potential to meet today's needs better and anticipate tomorrow's challenges.

Introduction to MTP

About MTP

The Medicaid Transformation Project (MTP) is a multi-year agreement between Washington State and the Centers for Medicare & Medicaid Services (CMS) under a Section 1115 Medicaid demonstration waiver. Originally a five-year agreement spanning 2017 through 2021, the waiver was extended for an additional demonstration year through 2022 and then extended again for six months through June 2023. Under this waiver, Washington aims to improve the quality of care delivered to people enrolled in Medicaid (Apple Health) while testing innovative approaches to improve and transform Washington's health and wellness systems.

On June 30, 2023, Washington received approval for a new waiver demonstration entitled Medicaid Transformation Project 2.0 (MTP 2.0). MTP 2.0 will build on the foundation laid by MTP 1.0, extending its scope and introducing new initiatives to continue to improve Apple Health and CHIP enrollee outcomes across Washington. MTP 2.0 will run from July 1, 2023, through June 30, 2028.

This MTP 1.0 Summative Evaluation Report will evaluate the state's progress from 2017 through 2022, spanning MTP 1.0 demonstration years one through six.

MTP Consists of Five Initiatives

- **Initiative 1:** Delivery System Reform Incentive Payment Program. Establishes nine regional Accountable Communities of Health (ACHs) to collaborate with health and social services organization partners on a series of locally-led health improvement projects.
- **Initiative 2:** Medicaid Alternative Care and Tailored Supports for Older Adults. Establishes new service options for older adults to remain in their homes and avoid the need for more intensive services.
- **Initiative 3:** Foundational Community Supports. Establishes a statewide network of organizations connecting vulnerable adults with supportive housing and supportive employment services.
- **Initiative 4:** Substance Use Disorder Amendment. Expands options for federally-funded treatment of SUD in mental health and SUD facilities.
- **Initiative 5:** Serious Mental Illness / Serious Emotional Disturbance Amendment. Expands options for federally-funded treatment of SMI and SED to individuals in an IMD, including outpatient services, intensive outpatient services, residential treatment, and crisis services.

About the MTP Evaluation

The State of Washington engaged the Center for Health Systems Effectiveness at Oregon Health & Sciences University as an Independent External Evaluator (IEE) to conduct a comprehensive review of the MTP demonstration.

The evaluation assesses whether MTP, as envisioned and implemented, achieved its goals to transform the delivery of Washington's health systems and improve care for Apple Health enrollees.

The MTP evaluation includes nine specific aims, including:

1. Provide an assessment of overall Apple Health system performance (related to access, quality, and efficiency of care) under the Delivery System Reform Incentive Payments program
2. Provide an assessment of progress toward meeting Medicaid value-based payment adoption targets
3. Provide an assessment of the impact of MTP on the development of the workforce capacity needed to support health system transformation
4. Provide an assessment of the impact of MTP on provider adoption and use of appropriate health information technology
5. Provide an assessment of the impact of MTP initiatives and projects at the state and ACH regional level
6. Provide an assessment of the impact of Medicaid Alternative Care and Tailored Supports for Older Adults on the need for and use of long-term services and supports
7. Provide an assessment of the impact of Foundational Community Supports on health outcomes, utilization, and cost
8. Provide an assessment of the impact of the Section 1115 SUD waiver amendment
9. Provide an assessment of the impact of the Section 1115 SMI / SED waiver amendment

About the MTP 1.0 Evaluation

This report is the final in a series of five evaluation reports evaluating the MTP 1.0 demonstration. This report (the "Summative Evaluation Report") will assess MTP's impacts, explore underlying factors underlying these impacts, and communicate lessons learned from MTP.

- **Baseline Evaluation Report.** A prior Baseline Report described Washington's Apple Health system readiness for transformation as of 2019, when HIPs under Initiative 1 were first being implemented. The Baseline Report focused on Aims 1-4 and presented contextual information and preliminary findings related to the other aims.
- **Interim Evaluation Report.** A prior Interim Evaluation Report described the performance of Washington's Apple Health system through December 2019, spanning the first three years of activities under the MTP initiative. This report presents findings from Aims 1 and 5 pertaining to MTP Initiative 1 (DSRIP) and Aims 6-8 pertaining to MTP Initiatives 2-4.
- **Midpoint Assessment of Washington's Section 1115 Substance Use Disorder (SUD) Amendment.** A prior Midpoint Assessment of Washington's Section 1115 SUD Amendment through June 2019 spanned the first year of amendment implementation. The report presents steps Washington has taken to implement the waiver—including aspects of implementation specific to tribes and AI/AN enrollees in Washington—and progress on SUD performance metrics and waiver milestones.
- **Midpoint Assessment of Washington's Section 1115 Serious Mental Illness/Serious Emotional Disturbance (SMI/SED) Amendment.** A prior Midpoint Assessment of Washington's Section 1115 SMI/SED Amendment through 2021 covered the first year of amendment implementation. The report presents steps Washington has taken to implement the waiver and progress on SMI/SED performance metrics and waiver milestones.
- **Summative Evaluation Report.** This Summative Evaluation Report describes the performance of Washington's Apple Health system through December 2022, spanning six years of the MTP demonstration.

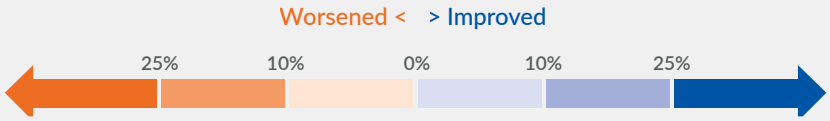
The MTP evaluation relies on a wide variety of quantitative and qualitative data to achieve its aims. Key data sources collected and analyzed for the Summative Evaluation Report included:

- Administrative data, including program enrollment and claims data, provided information on health care access, quality, and utilization.
- Key informant interviews provided qualitative, contextual information on how ACHs and providers were implementing health improvement efforts.
- Primary care provider organization survey data captured respondents' experiences with value-based payment arrangements, workforce shortages, and health information technology adoption in 2017, 2018, and 2021. Appendix B describes surveys in detail; see the Data Appendix for full primary care practice and hospital survey response data.

How to Read the Results: Overview

This section presents an overview of how to interpret the tables in this report. Refer to "How to Read the Results: DSRIP," "How to Read the Results: Surveys," "How to Read the Results: Health Improvement Projects" for notes specific to those chapters.

We evaluate a set of quantitative outcome measures throughout this report, measuring change over time and drawing comparisons between groups. We use colors consistently, with shades of blue indicating improvements, and shades of orange indicating worsening rates. Unless otherwise noted, magnitude of change is indicated by shading, as follows:



We present our findings in a series of tables, color coding cells where we have found the measured differences to be statistically significant (p-value < 0.05). In cases where observed changes were not statistically significant, cells have been left white. For example, most changes over time displayed in the following table were statistically significant, and color coding was applied accordingly. However, the adjusted change from the peak of the COVID-19 PHE to 2022 (in the third column) was not significant for the first two outcomes in this analysis, and so those cells have been left white.

		2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
Ratio of Home and Community-Based Care Use to Nursing Facility Use	[0]	95.6%	1.9%*	0.3%	16,743
Hospital Readmission within 30 Days	[3] ↓	14.3%	0.8%*	-0.1%	42,490
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	41.5	-5.7*	3.7*	1,925,252
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	46.4	-3.0*	-1.4*	1,024,164

In some cases, statistical testing was not conducted, but we still wished to use color to highlight the direction of change. To differentiate these tables from those where statistical testing for significance was conducted, we have included cell borders to highlight differences. In the following table, any between-group difference >1% is color coded based on the magnitude and direction of the change, while cells displaying between-group differences <1% are left white.

		AI/AN	Asian	Black
Ratio of Home and Community-Based Care Use to Nursing Facility Use	[0]	92.8%^	95.8%^	95.7%
Hospital Readmission within 30 Days	[3] ↓	16.1%	11.9%	17.9%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	53.9	20.9	52.8
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	69.4	23.5	50.7

STATISTICAL SIGNIFICANCE

We indicate statistically significant change (p-value <0.05) with shaded cells. In cases where statistical testing has not been conducted, the direction of observed difference is highlighted in outlined cells. Change that is significant at the 0.01 level (p-value < 0.01) is also indicated with an asterisk (*).

LOW CELL COUNTS

Rates that are based on small populations are indicated with a caret (^) symbol. Measures with fewer than 1,000 unique members in the denominator are displayed with a single caret (^) and those with fewer than 100 members include a double caret (^^). Any measure with fewer than 11 members in the numerator or the denominator has been suppressed.

MTP Acronyms

ACE	Adverse Childhood Experience
ACH	Accountable Community of Health
ADL	Activities of Daily Living
AI/AN	American Indian or Alaska Native
AIMS	Advancing Integrated Mental Health Solutions
ALTSA	Aging and Long-Term Support Administration
ASAM	American Society of Addiction Medicine
AOD	Alcohol or Other Drug
BHO	Behavioral Health Organization
BHT	Better Health Together
CARE	Comprehensive Assessment Reporting Evaluation
CCA	Care Coordination Agency
CCBHC	Certified Community Behavioral Health Clinic
CCS	Care Coordination System
CDC	Centers for Disease Control and Prevention
CDPS	Chronic Illness and Disability Payment System
CHIP	Children's Health Insurance Plan
CHW	Community Health Worker
CIE	Community Information Exchange
CMHC	Community Mental Health Centers
CMS	Centers for Medicare and Medicaid Services
COPD	Chronic Obstructive Pulmonary Disease
CPAA	Cascade Pacific Action Alliance
DBHR	Division of Behavioral Health and Rehabilitation
DHAT	Dental Health Aide Therapists
DOH	Department of Health
DRG	Diagnosis-Related Group
DSHS	Department of Social and Health Services
ED	Emergency Department
EDIE	Emergency Department Information Exchange
EH	Elevate Health
EHR	Electronic Health Record
EMS	Emergency Medical Services
FCS	Foundational Community Supports
FCSB	FCS Both
FCSE	FCS Supportive Employment
FCSH	FCS Supportive Housing
FFP	Federal Financial Participation
FFS	Fee-for-Service
FQHC	Federally Qualified Health Center
GCACH	Greater Columbia ACH
HCA	Washington Health Care Authority
HCBS	Home and Community-Based Services
HCP-LAN	Health Care Payment Learning & Action Network

HEDIS	Healthcare Effectiveness Data and Information Set
HH	HealthierHere
HI/PI	Hawaiian or Pacific Islander
HRSA	Health Resources and Services Administration
HRSN	Health-Related Social Needs
ICDB	Integrated Client Database
IEE	Independent External Evaluator
IHCP	Indian Health Care Providers
IMC	Integrated Managed Care
IMD	Institutions for Mental Diseases
IOP	Intensive Outpatient Services
IPS	Individual Placement and Support
LARC	Long-Acting Reversible Contraception
LTSS	Long-Term Services and Supports
MAC	Medicaid Alternative Care
MAT	Medication-Assisted Treatment
MCO	Managed Care Organization
MHPAEA	Mental Health Parity and Addiction Equity Act
MOUD	Medications for Opioid Use Disorder
MTP	Medicaid Transformation Project
NCACH	North Central ACH
NCQA	National Committee for Quality Assurance
NFP	Nurse-Family Partnership
NSACH	North Sound ACH
OCH	Olympic Community of Health
OUD	Opioid Use Disorder
P4P	Pay-For-Performance
PMPM	Per Member per Month
HIE	Health Information Exchange
HIP	Health Improvement Project
HIT	Health Information Technology
POLST	Physician Orders for Life-Sustaining Treatment
PHE	Public Health Emergency
PRISM	Predictive Risk Intelligence System
RFP	Request for Proposal
RHC	Rural Health Clinic
SAMHSA	Substance Abuse and Mental Health Services Administration
SDOH	Social Determinants of Health
SED	Serious Emotional Disturbance
SMI	Serious Mental Illness
SUD	Substance Use Disorder
SWACH	Southwest Washington ACH
TSOA	Tailored Supports for Older Adults
VBP	Value-Based Payment
WA-ICA	Washington Integrated Care Assessment

MTP Initiative 1

Initiative 1 includes:

- **Chapter 1**, Statewide Performance Under the DSRIP Program
- **Chapter 2,** Value-Based Payment Adoption
- **Chapter 3,** MTP's Impact on Health Care Workforce Capacity
- **Chapter 4,** MTP's Impact on Health Information Technology Use
- **Chapter 5,** Overview of ACH Health Improvement Projects
- **Chapter 6,** Evaluation of Project 2A: Bi-Directional Integration of Physical and Behavioral Health
- **Chapter 7,** Evaluation of Project 2B: Community-Based Care Coordination
- **Chapter 8,** Evaluation of Project 2C: Transitional Care
- **Chapter 9,** Evaluation of Project 2D: Diversion Interventions
- **Chapter 10,** Evaluation of Project 3A: Addressing the Opioid Use Public Health Crisis
- **Chapter 11,** Evaluation of Project 3B: Reproductive and Maternal/Child Health
- **Chapter 12,** Evaluation of Project 3C: Access to Oral Health Services
- **Chapter 13,** Evaluation of Project 3D: Chronic Disease Prevention and Control
- **Chapter 14,** Health Improvement Work Across MTP Initiative 1

KEY FINDINGS

Across all component parts of MTP Initiative 1 – outlined in the list above – the following key findings emerged:

- **Health Improvement Projects demonstrated mixed results.** *Considerable improvements occurred throughout the demonstration period for Project 3A (Addressing the Opioid Use Public Health Crisis). There was qualitative evidence of delivery system change for most other initiatives, but most did not exhibit meaningful changes in selected quantitative measures.*
- **There were persistent racial and ethnic health disparities, particularly among Black and American Indian and Alaska Native populations.** *For instance, these groups faced considerably higher rates of ED use and lower preventive care utilization, pointing to systemic barriers that prevent equitable health access and outcomes.*
- **Adoption of Value-Based Payments increased, but considerable barriers remain.** *ACHs supported the adoption of value-based payments (VBPs), although they had little direct leverage on contracting. Small primary care practices and behavioral health provider organizations found VBP arrangements less viable. Furthermore, while state-audited reports from MCOs demonstrated that more than 80 percent of their contracts were in VBP, primary care practices reported a relatively small share of revenues that were tied to quality or risk. These discrepancies could reflect response bias in our survey (if, for example, smaller practices who did not engage in VBP were more likely to respond), or could reflect differences in measurement of VBP (e.g., MCO-level assessments of persons covered under VBP contracts versus practice-level assessments of the actual percentage of revenues that they were subject to VBP bonuses or were at risk.)*
- **Critical workforce shortages may have exacerbated delays in care and potentially compromised quality.** *Shortages were especially pronounced in the fields of primary care and behavioral health. ACHs made efforts to mitigate these shortages, providing education and training support aligned with the state's workforce goals.*
- **Despite progress in health information technology, considerable gaps remain, particularly in the exchange of information between behavioral health and primary care.** *This fragmentation hinders effective care coordination and comprehensive care delivery, emphasizing the need to address barriers to improved Health and Community Information Exchange.*
- **The COVID-19 PHE considerably disrupted delivery and reform efforts, impeding progress across the board.** *However, ACHs played a vital role in responding to the PHE, working with community organizations and clinical partners to support community members and boost vaccination rates.*

Recommendations

1. **Consider data-driven health equity initiatives.** Implement targeted health equity initiatives that are data-driven, focusing on reducing disparities in health care access and outcomes among racial and ethnic minority groups. The data from this evaluation points to clear disparities that could be addressed. Future efforts could involve enhancing local community health programs or increasing funding for targeted initiatives.
2. **Prepare for additional challenges in VBP progress.** Progress has been made in VBP, with over 80 percent of MCO contracts in HCP-LAN Category 2C (Pay-for-Performance, P4P) or above. However, practices reported a much smaller share of total revenue that was attached to quality measures. (These discrepancies could be attributed to response bias in our survey (for instance, if smaller practices not engaged in VBP were more likely to respond), or they might reflect differences in how MCOs and practices categorize contracts and consider them to be VBP. For example, MCO-level assessments are based on individuals covered under VBP contracts, whereas practices were asked to report on the percentage of revenues subject to VBP bonuses or risk.) The state has plans to

move 50 percent of contracts into HCP-LAN Category 3B (upside and downside risk sharing) over the next five years. Additional tools to monitor how that changes revenue flows within clinics may be helpful. Furthermore, the movement to contracts with downside risk may place more pressure on providers, particularly if providers have concerns about low reimbursement rates and complex patient populations within Apple Health. Given the challenges we observed in behavioral health practices and small practices in adopting VBP, driving further change may be considerably more difficult and will require new focus and technical assistance.

3 **Plan strategically for workforce expansion.** The state should consider a comprehensive workforce expansion plan that addresses immediate shortages and long-term needs. This plan should include incentives for training and retaining health care professionals in underserved areas, such as scholarships, loan forgiveness programs, and competitive compensation packages.

4 **Build on progress in health information technology.** The state should continue to focus on achieving full interoperability across health care providers. These efforts should include a vision for Health and Community Information Exchange, standardizing data-sharing practices to ensure seamless care coordination, funding to update legacy systems, particularly within behavioral health, and continued training of providers on new technologies.

Overview

In this chapter, we display performance across the state from the MTP baseline (baseline, 2017 and 2018) through 2022, representing the last measurable year of MTP. Because the MTP demonstration period included the COVID-19 PHE and its associated disruptions, we also display changes in measures from the peak PHE years (2020 and 2021) through 2022. We measure statewide performance on 51 metrics categorized into eleven domains.

Background

MTP represented a substantial and novel effort to transform Washington's Medicaid (Apple Health) system, focusing on integrating care across multiple domains, paying for value rather than service volume, and sharing accountability for performance with the state's providers, Medicaid MCOs, and regional Accountable Communities of Health (ACHs), regional entities that could bring together organizations concerned with health—including health care providers and hospitals, public health districts, and social service organizations – to align their efforts toward common goals. These efforts began as early as 2015 when Washington established ACHs using a State Innovation Model grant from the Center for Medicare and Medicaid Services (CMS) and extended throughout the 2017-2023 Section 1115 waiver period.

Throughout the MTP demonstration period, ACHs have supported the transition to a holistic approach to health by integrating physical and behavioral health care, fostering partnerships, and offering technical assistance to help providers adapt their business models. ACHs have emphasized coordinating care at the community level by linking individuals to complementary health care and social services, which can improve health and reduce the burden on the health care delivery system. ACHs have also promoted health equity, particularly to historically underfunded entities and services. These initiatives enhanced state and local response and recovery efforts during the unprecedented PHE, setting a model for future responses.

MTP Approach to Change

MTP Initiative 1 introduced a new statewide performance and accountability framework for Washington, with multiple levels of performance incentives and accountability for health improvement during the demonstration.

Statewide Accountability

Washington is accountable to CMS for demonstrating progress at the statewide level toward:

- Integrating physical and behavioral health care
- Increasing adoption of VBPs
- Achieving improvement on ten quality measures (see Exhibit 1.1)

At the onset, the initial quality thresholds for VBP performance were such that MCOs were routinely achieving these benchmarks. In response, the quality portion of the VBP changed in 2020, increasing the threshold for performance according to 2019 legislative direction and created a mechanism where the metrics were designed to be more difficult to achieve. This change occurred at the beginning of the PHE. The state continues to refine the quality requirements for the initiative to support continued need for conversations with MCOs and providers.

As MTP has progressed, an increasing proportion of the state's DSRIP funding has been at risk if performance milestones were not met. Exhibit 1.1 displays these statewide performance metrics.

Exhibit 1.1. Statewide Accountability Quality Metrics and Associated Health Improvement Projects

Metric	Associated Health Improvement Projects
All-Cause Emergency Department Visits	2A, 2B, 2C, 2D, 3A, 3B 3C, 3D
Antidepressant Medication Management	2A
Asthma Metric: 2017-2020: Medication management for people with asthma 2020-2022: Asthma Medication Ratio	2A, 3D
Child And Adolescent Well-Care Visits 2017-2020 Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Age 2022-2022 Child and Adolescent Well-Care Visits	2A, 3B, 3D
Comprehensive Diabetes Care: Blood Pressure Control	N/A
Comprehensive Diabetes Care: Hemoglobin A1c Poor Control (>9%)	N/A
Controlling High Blood Pressure (<140/90)	N/A
Mental Health Treatment Penetration (Broad)	2A, 2B, 3B
Plan All-Cause Readmission Rate (30 Days)	2A, 2B, 2C
SUD Treatment Penetration	2A, 2B, 3B

Source: DSRIP Measurement Guide (June 2022)

Regional Accountability

Additional measures and incentives for certain stakeholders are nested within this larger framework of statewide accountability, including:

- ACHs are accountable for promoting the adoption of VBPs as well as for performance on a subset of project-related measures

- MCOs are incentivized to achieve targets for adoption of VBPs that increase over the course of the demonstration
- Indian Health Care Providers (IHCP) are incentivized to identify and report on HIPs to improve the health of the populations they serve

Implementation of Initiative 1

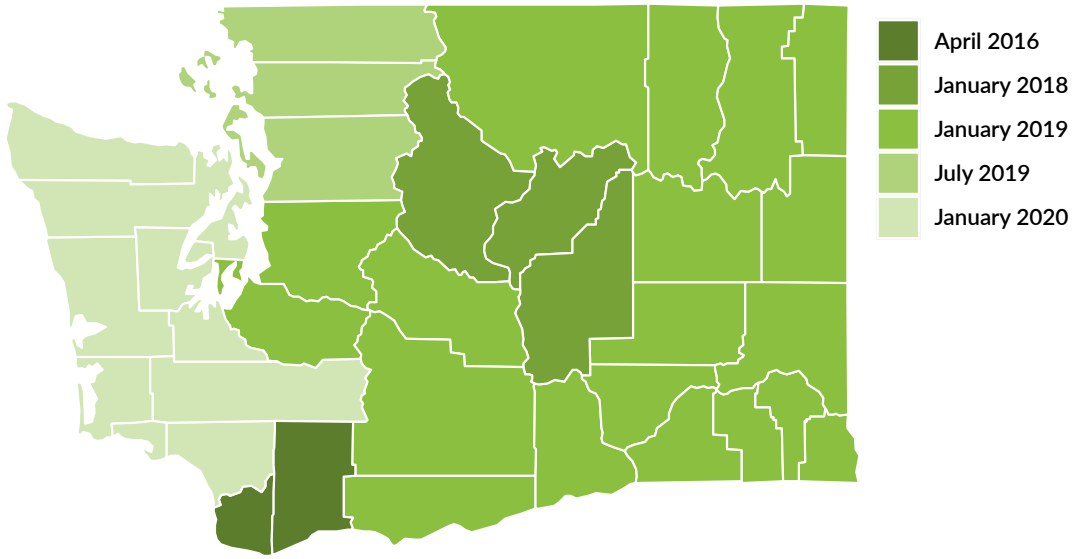
Washington engaged in a series of reforms to achieve the goals and performance improvement targets of the demonstration, including:

- Directing the MCOs to financially integrate physical and behavioral health care (i.e., "Integrated Managed Care" [IMC])
- Establishing targets and a VBP Roadmap to increase adoption of VBP arrangements between MCOs and providers
- Expanding the ACH model statewide and developing the MTP Project Toolkit to guide efforts of nine ACHs to promote health and transform care delivery in their regions

Integration of Physical and Behavioral Health Care

To achieve the MTP goal of integrating physical and behavioral health care, Washington required its five MCOs to financially integrate ("carve in") behavioral health services, with those transitions happening in waves that corresponded roughly to ACH regions. This financial integration occurred in five waves, as shown in Exhibit 1.2.

Exhibit 1.2. Integrated Managed Care Regions by Implementation Date



Studies of the effects of IMC through 2020 suggest mixed results. A study by Washington's Research and Data Analysis Division assessed changes in the first year of IMC for group 1 (which transitioned to IMC in April 2016) compared to the rest of the state. This evaluation found IMC to be associated with improvements in mental health access, reductions in psychiatric inpatient readmissions, and improvements in diabetes screening rates for people with serious mental illness.[2] However, a follow-up peer-reviewed study did not find similar improvements or reductions in acute care, although enrollees with SMI had slight increases in access to primary care.[3] A second study assessed a larger group of enrollees and counties that initiated IMC through 2019 and did not find any

significant changes in claims-based outcomes associated with financial integration.[4] Despite these null findings, the studies did not find evidence suggesting that enrollees were worse off with IMC.

While all regions completed the transition to IMC by 2020, there is evidence that this transition may have impeded other MTP initiatives in unexpected ways. In Chapters 6-13, we note that ACHs encountered difficulty engaging some partnering providers in their MTP initiatives because these providers were focused on organizational changes necessary under IMC. Behavioral health agencies and substance use disorder treatment providers expressed considerable challenges with the transition.

The IMC initiative may not have been sufficient to drive substantial improvements in behavioral health access and quality. However, it could serve as a necessary and useful first step, with subsequent efforts potentially focusing on additional training, monitoring, and incentives. Additional details about the IMC experience are provided in Chapter 19.

Adoption of Value-Based Payments

Washington originally set a goal of integrating 90% of state-financed health care payments in Washington into VBP arrangements by 2021. With the disruptive effects of the COVID-19 PHE, the state applied for and received a demonstration amendment from CMS that adjusted the 2021 and 2022 VBP adoption targets from 90 percent to 85 percent.

HCA's Paying for Value 2022 survey of payers (Apple Health and commercial) found that 83 percent of state-financed health care flowed through VBP arrangements with P4P or more substantial risk sharing approaches.[5] Although VBP attainment did not reach the 85 percent goal, it marked a substantial increase from 30% in 2016, reflecting consistent progress despite the COVID-19 pandemic's disruptions. However, the adoption of arrangements involving downside risk appeared to have plateaued, possibly influenced by the pandemic's impact on the health industry and provider hesitancy towards such risk-bearing models.

Improvements in Performance and Quality

ACHs were key partners in the state's efforts to improve performance and quality and achieve its targets for accountability. To guide ACHs in supporting the attainment of performance targets, a Project Toolkit developed at the outset of MTP defined eight HIP areas, each with links to ACH performance incentives and required milestones. ACHs pursued a wide range of activities within eight HIP areas during the demonstration period. In Chapters 6-13 of this report, we provide the results of our evaluation of each HIP.

Responding to COVID-19

In early 2020, the COVID-19 pandemic reached the United States, with the first confirmed outbreaks occurring in Washington. The pandemic caused widespread disruptions to the health care delivery system. In response to these disruptions, HCA requested and received authorization from CMS to modify elements of MTP performance and accountability. At the statewide level, Washington's accountability to CMS to achieve performance targets on the 10 statewide quality measures in 2020 was modified to pay-for-reporting only, and risk was eliminated in the event that the state did not achieve statewide quality targets for 2020. The state continued to drive towards quality outcomes in the delivery system through MCO contracts, continuing performance outcomes as contracted and legislatively directed. In response to the pandemic, to minimize provider burden, NCQA allowed Medicaid plans to submit the prior year's rate for certain measures that required provider chart audits, "rotating" the measures they reported. This reduced the threshold for performance achievement on a subset of the required measures for the first year of the PHE.

ACHs were actively engaged in COVID-19 response and recovery at the regional level throughout 2020 while navigating challenges related to the pandemic that disrupted the implementation of regional health improvement projects. In recognition of these challenges, HCA changed ACHs' incentive payments in July 2020 to offer greater flexibility in meeting performance targets during the pandemic. The state of Washington also obtained an amendment to its Section 1115 Medicaid Demonstration Waiver to add a sixth demonstration year and extend MTP initiatives through 2022.

Statewide Performance Under the Delivery System Reform Incentive Payment (DSRIP) Program

Quantitative Evaluation Approach

To assess the performance statewide of Washington's Apple Health system through December 2022, we selected 51 metrics from two sources:

- Metrics used to pay ACHs on a P4P basis
- Additional metrics in the state's MTP Evaluation Design[6]

For ease of interpretation, we categorize the metrics into 11 domains. Exhibit 1.3 presents the domains and metrics. Appendix A provides details on each metric.

We analyzed changes in each metric from a baseline period (2017 and 2018) to the end of the demonstration (2022). Given the impact of the COVID-19 PHE, we also analyzed change from the peak PHE period (2020 and 2021) to the end of the demonstration period (2022). We excluded 2019 data as a washout year. We used statistical models to adjust for observable factors, including changes in patient demographics and health status that may also drive changes in metrics.

In Apple Health, capitation and other alternative payment mechanisms used by MCOs mean that much of health care use is recorded through "encounter" claims, which include information on diagnosis and procedure but record the amount paid as "zero." Estimates of expenditures based purely on amounts designated as "paid" in claims data would undercount services recorded on an encounter basis because the payments are not captured in the data. To include these data in our assessment, we imputed spending as follows. For claims not paid on a diagnosis-related group (DRG) basis, we first categorized claims into a set of care settings and then used the median non-zero "paid" amount from (2017-2022) for each CPT, year, and care setting. For inpatient facility claims paid on a DRG basis, we determined spending as the mean (non-$0) allowed amount for the stay. When allowed amounts were missing, we imputed spending with the average payment based on the DRG code and year of the inpatient stay.

Exhibit 1.3. Performance Metrics Used in the MTP Summative Evaluation

Domain	Evaluation Metrics	Changes from Interim Report
Social Determinants of Health [i]	• Homelessness • Employment • Arrest Rate	Same metrics as in Interim Report
Access to Primary and Preventive Care	• Adults' Access to Primary Care • Well-Care Visits Ages 3 to 21 • Well-Child Visits in the First 30 Months	Retired: Well-Child Visits in the First 15 Months, Well-Child Visits Age 3 to 6 Added: Well-Care Visits Ages 3 to 21, Well-Child Visits in the First 30 Months
Reproductive and Maternal Health Care	• Timely Prenatal Care • Effective Contraception • Long-Acting Reversible Contraceptives Within 90 Days of Delivery • Effective Contraception Within 90 Days of Delivery	Replaced: Effective Contraception Within 60 Days of Delivery
Prevention and Wellness	• Immunizations for Children • Chlamydia Screening for Women • Cervical Cancer Screening • Breast Cancer Screening • Colorectal Cancer Screening	Retired: Body Mass Index Assessment for Adults
Mental Health Care	• Mental Health Treatment Penetration • Antidepressant Medication for Adults (12 weeks) • Antidepressant Medication for Adults (6 months) • Antipsychotic Medication for People with Schizophrenia • Diabetes Screening for People with Schizophrenia/Bipolar Disorder • 30-Day Follow-Up After ED Visit for Mental Illness • 30-Day Follow-Up After Hospitalization for Mental Illness • 30-Day Hospitalization for Mental Illness • 30-Day Hospital Readmission for a Psychiatric Condition	Same metrics as in Interim Report
Oral Health Care	• Preventive or Restorative Dental Services • Topical Fluoride at a Medical Visit • Periodontal Exam for Adults	Same metrics as in Interim Report

Exhibit 1.3. Performance Metrics Used in the MTP Summative Evaluation (continued)

Domain	Evaluation Metrics	Changes from Interim Report
Care for People with Chronic Conditions	• Controller Medication for Asthma • Eye Exam for People with Diabetes • Hemoglobin A1c Testing for People with Diabetes • Statin Medication for Cardiovascular Disease	Removed: Nephropathy Screening for People with Diabetes
Emergency Department, Hospital, and Institutional Care Use	• Ratio of Home and Community-Based Care Use to Nursing Facility Use • ED Department Visit Rate • Acute Hospital Use Among Adults • Hospital Readmission Rate Within 30 Days	Same metrics as in Interim Report
Substance Use Disorder care	• SUD Treatment for People with Treatment Need • Alcohol or Other Drug (AOD) Treatment: Initiation • AOD Treatment: Engagement • 30-Day Follow-Up After ED Visit for Alcohol/ Drug Abuse/Dependence	Same metrics as in Interim Report
Opioid Prescribing and Opioid Use Disorder Treatment	• People with an Opioid Prescription ≥ 50mg MED • People with an Opioid Prescription ≥ 90mg MED • People with an Opioid Prescription Who Were Prescribed a Sedative • Opioid Use Disorder (OUD) Treatment for People with Treatment Need	Same metrics as in Interim Report
Health Care Expenditures	• Primary Care Spending • ED Spending • Other Outpatient Spending • Inpatient Spending • Long-term Services and Supports (LTSS) Spending • Pharmacy Spending • Total Spending, excluding pharmacy • Total Spending	New domain, all metrics new

[i] The terms "social determinants of health" (SDOH) and "health-related social needs" (HRSN) have historically been used interchangeably. Since the original MTP evaluation design, HCA has articulated the relationship between SDOH and HRSN, defining HRSN at the individual level as "social needs – such as for housing and food security – that may exacerbate poor health and quality-of-life outcomes when they are not met. HCA recognizes that HRSNs reflect a community's SDOH and other systems that impact daily life.

Populations

Our data include outcomes for approximately 3.2 million Apple Health enrollees as of December 2019. We present results for all Apple Health enrollees in Washington, as well as results for specific sub-groups described in Exhibit 1.4.

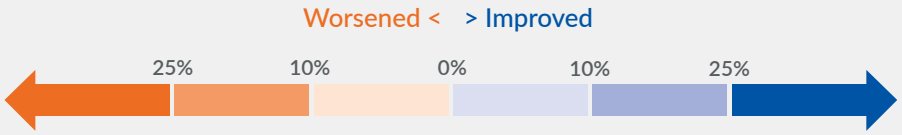
Exhibit 1.4. Subgroups of Apple Health Enrollees

Health Condition	Chronic condition	People diagnosed with at least one chronic condition defined by CMS' Chronic Conditions Data Warehouse.
	Severe mental illness	People diagnosed with at least one serious mental health condition, such as schizophrenia, bipolar disorder, or major depression, as defined by NCQA.
Geography of Residence	Rural	People who resided in zip codes with a population center of less than 49,000.
	High-poverty	People who resided in zip codes where the median income was in the bottom fifth of Washington's income distribution.

How to Read the Results: DSRIP

This section of the report presents detailed information on 51 performance measures organized into eleven domains. We analyze statewide change in each metric over time and provide a detailed look at each measure disaggregated for priority subpopulations.

Color coding is used throughout this section, with shades of blue indicating **improvements** in outcomes and shades of orange indicating **declines**. The magnitude of change is indicated by shading, as follows:



Statewide Tables

Statistically significant (p-value <0.05) adjusted change is color-coded, with shades of blue indicating **improvement** and shades of orange indicating that a measure **worsened**. Change that is significant at the 0.01 level (p-value <0.01) is also indicated with an asterisk (*). Boxes where changes were not statistically significant have been left white.

*Adjusted change values are color coded to indicate if measures **worsened** or **improved** during the relevant period. Values that weren't statistically significant have been left white.*

		2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
Ratio of Home and Community-Based Care Use to Nursing Facility Use	[0]	95.6%	1.9%*	0.3%	16,743
Hospital Readmission within 30 Days	[3] ↓	14.3%	0.8%*	-0.1%	42,490
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	41.5	-5.7*	3.7*	1,925,252
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	46.4	-3.0*	-1.4*	1,024,164

Bracketed numbers next to each measure indicated the number of projects for which it is pay-for-performance. For some measures, lower values are preferred, and this is indicated with a downward arrow.

Unadjusted rate at the end of the demonstration

Total number of enrollees represented

EXAMPLE

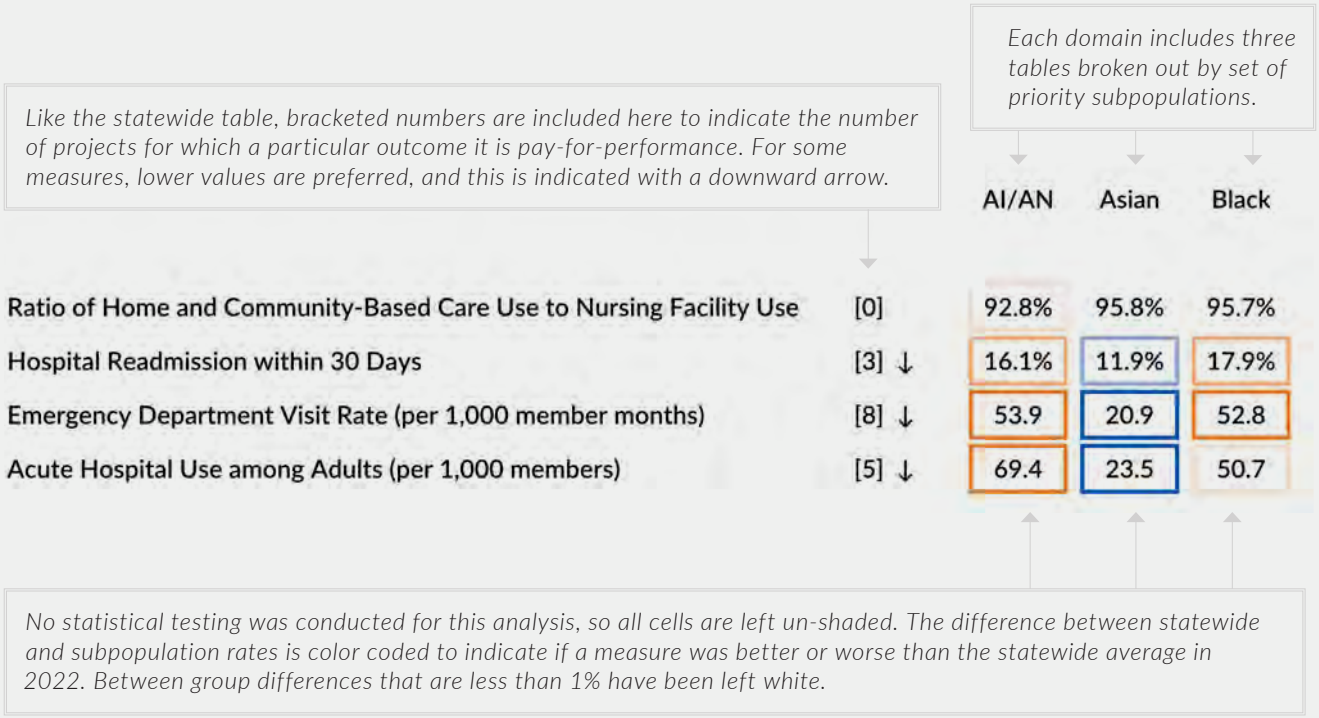
The adjusted rate of Hospital Readmissions within 30 Days increased by 0.8% between the baseline period and 2022. A lower rate is better for this outcome measure, so it is shaded light orange. We found this change to be significant at the 0.01 level, so the rate of *change is reported with an asterisk. This metric fell by 0.1% from the peak of the PHE to 2022, but this change was not statistically significant so that cell has been left white.*

Subpopulation Tables

Each domain in this section also includes three tables presenting unadjusted 2022 rates broken out by a set of priority subpopulations. These include detailed views of outcomes for enrollees with chronic health conditions or serious mental illness, enrollees living in rural or high-poverty areas, and by racial group.

Color coding is used here to compare each group's outcomes to the statewide average, with shades of blue indicating a rate that is **better** than the statewide average and shades of orange indicating a rate that is **worse** than the statewide average. Rates based on small populations (with fewer than 1,000 or 100 unique individuals in the denominator) are indicated with a caret symbol (^ or ^^, respectively). Any rates with fewer than 11 enrollees in the numerator or the denominator has been suppressed.

No statistical testing was conducted for this portion of the analysis so all cells are left unfilled, with outlines to indicate the direction and magnitude of difference between rates. Note that our analysis used the rate of relative difference [(subpopulation rate – statewide rate) / statewide rate] between rates to determine magnitude of difference, so small changes in measure with lower rates may appear more pronounced. Subpopulation rates that are within 1% of the statewide average have been left white.



EXAMPLE

The rate of Hospital Readmissions within 30 Days in 2022 was considerable higher among American Indian and Alaskan Native members than in the state overall. A lower rate is better for this outcome measure, so it is outlined medium orange.

Domain 1: Social Determinants of Health

This domain includes the following measures:

- **Homelessness.** Percentage of enrollees who were homeless at least one month in the year, as reported by the Washington State Department of Social and Health Services, Economic Services Administration.
- **Employment.** Percentage of enrollees ages 18 to 64 with any earnings in the year, as reported by the Washington State Employment Security Department.
- **Arrest Rate.** Percentage of enrollees ages 18 to 64 years of age who were arrested at least once in the year, as reported by the Washington State Patrol.

KEY FINDINGS

- *There were significant decreases in homelessness (-1.3%) and the arrest rate (-2.6%) between baseline and 2022. The employment rate decreased slightly between the baseline and 2022 (-0.4%), but employment rates increased by 3.1% between the peak PHE years and 2022.*
- *Homelessness rates and arrest rates were particularly high among enrollees with SMI (20.6% and 10.7% respectively).*
- *Homelessness rates were highest among American Indian and Alaska Native and Black enrollees. Asian and Hispanic enrollees had the lowest rates of homelessness.*

Domain 1: Social Determinants of Health

Statewide Rates, 2022-2018 Change, and 2022-2020 Change

		2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
Homelessness	[3] ↓	7.6%	-1.3%*	-0.7%*	1,669,557
Employment (Age 18 to 64)	[0]	51.6%	-0.4%*	3.1%*	923,082
Arrest Rate (Age 18 to 64)	[1] ↓	4.3%	-2.6%*	-0.4%*	923,082

Measures by Health Condition and Geographic Area, 2022

Enrollees with chronic illness, enrollees with SMI, and enrollees living in rural areas, and enrollees living in high-poverty areas.

		Chronic	SMI	Rural	High Poverty
Homelessness	[3] ↓	10.0%	20.6%	6.6%	9.5%
Employment (Age 18 to 64)	[0]	50.4%	39.9%	51.8%	54.2%
Arrest Rate (Age 18 to 64)	[1] ↓	5.3%	10.7%	4.1%	5.5%

Measures by Race and Ethnicity, 2022

American Indian or Alaska Native (AI/AN), Asian, Black, Hawaiian or Pacific Islander (HI/PI), Hispanic, and White enrollees.

		AI/AN	Asian	Black
Homelessness	[3] ↓	14.2%	2.5%	11.9%
Employment (Age 18 to 64)	[0]	45.0%	51.1%	57.8%
Arrest Rate (Age 18 to 64)	[1] ↓	8.3%	1.2%	6.4%

		HI/PI	Hispanic	White
Homelessness	[3] ↓	5.8%	4.6%	9.4%
Employment (Age 18 to 64)	[0]	58.4%	62.2%	47.9%
Arrest Rate (Age 18 to 64)	[1] ↓	2.8%	3.9%	4.4%

Domain 2: Access to Primary and Preventive Services

This domain includes the following measures:

- **Adults' Access to Primary Care.** Percentage of Apple Health enrollees ages 20 and older who had at least one ambulatory or preventive care visit.
- **Well-Care Visits Ages 3 to 21.** Percentage of Apple Health enrollees ages 3 to 21 who had at least one well care visit.
- **Well-Care Visits in the First 30 Months.** Percentage of Apple Health enrollees ages 0 to 30 months who had at least one well care visit.

KEY FINDINGS

- *Metrics in this domain decreased between the baseline period and 2022, with the largest absolute decrease in Adults' Access to Primary Care (-6.2%). However, many of these changes appeared to coincide with the PHE. For example, the rate of well-care visits increased by 2.3% between the PHE and 2022.*
- *Rural areas and high poverty areas had access rates that were comparable to the statewide average.*
- *Access measures were notably lower for the Native Hawaiian/Pacific Islander subgroup than for other Apple Health enrollees.*
- *Well-care and well-child visits were lower for American Indian and Alaska Native, Black and white enrollees, but higher among Hispanic and Asian enrollees.*

Domain 2: Access to Primary and Preventive Services

Statewide Rates, 2022-2018 Change, and 2022-2020 Change

		2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
Adults' Access to Primary Care	[0]	69.6%	-6.2%*	-3.8%*	787,364
Well-Care Visits Ages 3 to 21	[2]	41.8%	-1.9%*	2.3%*	844,920
Well-Child Visits in the First 30 Months	[1]	57.4%	-3.6%*	-0.1%	35,585

Measures by Health Condition and Geographic Area, 2022

Enrollees with chronic illness, enrollees with SMI, and enrollees living in rural areas, and enrollees living in high-poverty areas.

		Chronic	SMI	Rural	High Poverty
Adults' Access to Primary Care	[0]	84.9%	91.9%	71.5%	70.2%
Well-Care Visits Ages 3 to 21	[2]	49.7%	NA	43.0%	44.2%
Well-Child Visits in the First 30 Months	[1]	65.1%	NA	58.3%	60.0%

Measures by Race and Ethnicity, 2022

AI/AN, Asian, Black, HI/PI, Hispanic, and White enrollees.

		AI/AN	Asian	Black
Adults' Access to Primary Care	[0]	69.6%	68.9%	69.3%
Well-Care Visits Ages 3 to 21	[2]	33.7%	45.8%	41.3%
Well-Child Visits in the First 30 Months	[1]	46.8%	69.3%^	54.7%

		HI/PI	Hispanic	White
Adults' Access to Primary Care	[0]	61.0%	71.7%	70.1%
Well-Care Visits Ages 3 to 21	[2]	36.1%	46.8%	38.0%
Well-Child Visits in the First 30 Months	[1]	48.9%	65.3%	53.0%

Domain 3: Reproductive and Maternal Health Care

This domain includes the following measures:

- **Timely Prenatal Care.** Percentage of deliveries with a prenatal care visit in the first trimester, on the Apple Health enrollment start date, or within 42 days of enrollment.
- **Effective Contraception.** Percentage of female Apple Health enrollees ages 15 to 44 who received a most-effective or moderately effective method of contraception.
- **Long-Acting Reversible Contraceptives Within 90 Days of Delivery.** Percentage of female Apple Health enrollees ages 15 to 44 who received a long-acting reversible method of contraception, defined as contraceptive implants, intrauterine devices, or intrauterine systems within 90 days of delivery.
- **Effective Contraception Within 90 Days of Delivery.** Percentage of female Apple Health enrollees ages 15 to 44 with a live birth who received a most-effective or moderately effective method of contraception within 90 days of delivery.

KEY FINDINGS

- *With the exception of timely prenatal care, metrics in this domain decreased between the baseline period and 2022. Performance also declined between the PHE and 2022.*
- *Hispanic enrollees had better measures of contraceptive quality and timely prenatal care relative to the state as a whole.*
- *Enrollees with chronic conditions, enrollees with SMI, enrollees in rural areas, and enrollees in high-poverty areas had better measures of contraceptive quality relative to the state as a whole.*

Domain 3: Reproductive and Maternal Health Care

Statewide Rates, 2022-2018 Change, and 2022-2020 Change

		2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
Timely Prenatal Care	[1]	87.6%	0.3%	-1.7%*	26,675
Effective Contraception	[1]	21.6%	-6.2%*	-3.0%*	362,820
Long-Acting Reversible Contraceptives within 90 Days of Delivery	[0]	17.5%	-3.4%*	-1.9%*	18,229
Effective Contraception within 90 Days of Delivery	[1]	41.0%	-9.3%*	-5.1%*	18,229

Measures by Health Condition and Geographic Area, 2022

Enrollees with chronic illness, enrollees with SMI, and enrollees living in rural areas, and enrollees living in high-poverty areas.

		Chronic	SMI	Rural	High Poverty
Timely Prenatal Care	[1]	87.4%	84.6%	89.3%	87.4%
Effective Contraception	[1]	25.9%	25.2%	23.1%	22.5%
Long-Acting Reversible Contraceptives within 90 Days of Delivery	[0]	17.9%	17.8%^	17.8%	20.0%
Effective Contraception within 90 Days of Delivery	[1]	42.9%	45.0%^	45.8%	46.0%

Measures by Race and Ethnicity, 2022

		AI/AN	Asian	Black
Timely Prenatal Care	[1]	79.2%^	90.1%^	86.0%
Effective Contraception	[1]	20.3%	18.6%	19.8%
Long-Acting Reversible Contraceptives within 90 Days of Delivery	[0]	16.1%^	17.0%^	18.4%
Effective Contraception within 90 Days of Delivery	[1]	37.3%^	35.6%^	38.8%

		HI/PI	Hispanic	White
Timely Prenatal Care	[1]	78.8%	89.7%	87.7%
Effective Contraception	[1]	16.7%	22.6%	22.4%
Long-Acting Reversible Contraceptives within 90 Days of Delivery	[0]	15.5%	22.7%	14.4%
Effective Contraception within 90 Days of Delivery	[1]	34.8%	49.8%	38.1%

Domain 4: Prevention and Wellness

This domain includes the following measures:

- **Immunizations for Children.** Percentage of children aged two who received all vaccinations in the combination 10-vaccination set by their second birthday.
- **Chlamydia Screening for Women.** Percentage of women ages 16 to 24 identified as sexually active who received at least one chlamydia test during the measurement year.
- **Cervical Cancer Screening.** Percentage of women ages 21 to 64 who were screened for cervical cancer.
- **Breast Cancer Screening.** Percentage of women ages 50 to 74 who had a mammogram to screen for breast cancer.
- **Colorectal Cancer Screening.** Percentage of Apple Health enrollees ages 50 to 74 who were screened for colorectal cancer.

KEY FINDINGS

- *Three measures in this domain (immunization for children, chlamydia screening, and cervical cancer screening) worsened between the baseline and 2022, but two measures (breast cancer screening and colorectal cancer screening) improved. The improvement in breast cancer screening was notable, improving by 13.2% to a rate of 44.9% in 2022.*
- *Metrics were generally better among people with chronic conditions and SMI and slightly worse among rural residents.*
- *American Indian and Alaska Native Apple Health enrollees experienced substantially worse outcomes on 5 of 6 metrics. Rates of breast cancer screening were notably lower (32.3%, compared to a statewide average of 44.9%).*

Domain 4: Prevention and Wellness

Statewide Rates, 2022-2018 Change, and 2022-2020 Change

		2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
Immunization for Children	[1]	31.7%	-6.4%*	-7.4%*	40,452
Chlamydia Screening for Women	[1]	46.8%	-4.5%*	-0.2%	64,964
Cervical Cancer Screening	[0]	44.4%	-2.4%*	-2.2%*	373,897
Breast Cancer Screening	[0]	44.9%	13.2%*	0.6%*	68,153
Colorectal Cancer Screening	[0]	32.6%	0.5%*	0.5%*	205,567

Measures by Health Condition and Geographic Area, 2022

Enrollees with chronic illness, enrollees with SMI, and enrollees living in rural areas, and enrollees living in high-poverty areas.

		Chronic	SMI	Rural	High Poverty
Immunization for Children	[1]	39.1%	NA	29.7%	33.0%
Chlamydia Screening for Women	[1]	46.8%	55.9%	43.1%	50.0%
Cervical Cancer Screening	[0]	49.5%	48.8%	44.0%	44.9%
Breast Cancer Screening	[0]	50.7%	43.9%	44.4%	44.4%
Colorectal Cancer Screening	[0]	38.3%	39.8%	31.7%	31.3%

Measures by Race and Ethnicity, 2022

AI/AN, Asian, Black, HI/PI, Hispanic, and White enrollees.

		AI/AN	Asian	Black
Immunization for Children	[1]	25.2%	56.3%	25.2%
Chlamydia Screening for Women	[1]	47.9%	45.8%	53.6%
Cervical Cancer Screening	[0]	36.1%	48.1%	46.5%
Breast Cancer Screening	[0]	32.3%	56.3%	39.7%
Colorectal Cancer Screening	[0]	24.7%	40.5%	30.1%

		HI/PI	Hispanic	White
Immunization for Children	[1]	31.3%	36.5%	26.8%
Chlamydia Screening for Women	[1]	47.1%	50.1%	43.6%
Cervical Cancer Screening	[0]	38.4%	51.6%	42.8%
Breast Cancer Screening	[0]	47.8%	56.1%	42.4%
Colorectal Cancer Screening	[0]	27.9%	36.6%	31.9%

Domain 5: Mental Health Care

This domain includes the following measures:

- **Mental Health Treatment Penetration.** Percentage of Apple Health enrollees ages six and older with a mental health service need who received at least one mental health service.
- **Antidepressant Medication for Adults (12 Weeks).** Percentage of Apple Health enrollees ages 18 and older with depression who remained on antidepressant medication for 12 weeks.
- **Antidepressant Medication for Adults (6 Months).** Percentage of Apple Health enrollees ages 18 and older with depression who remained on antidepressant medication for six months.
- **Antipsychotic Medication for People with Schizophrenia.** Percentage of Apple Health enrollees ages 19 to 64 with schizophrenia who received and remained on an antipsychotic medication.
- **Diabetes Screening for People with Schizophrenia/Bipolar Disorder.** Percentage of Apple Health enrollees ages 18 to 64 with schizophrenia or bipolar disorder who received antipsychotic medication and had a diabetes test.
- **30-Day Follow-Up After ED Visit for Mental Illness.** Percentage of emergency department visits with a diagnosis of mental illness where the patient received a follow-up outpatient service within 30 days.
- **30-Day Follow-Up After Hospitalization for Mental Illness.** Percentage of discharges after hospitalization for mental illness where the patient received a follow-up outpatient service within 30 days.
- **30-Day Hospital Readmission for a Psychiatric Condition.** Percentage of inpatient psychiatric stays by adults that were followed by a readmission within 30 days.

KEY FINDINGS

- *The change in mental health metrics was mixed between the baseline and 2022, with measures of antidepressant medication treatment and continuation improving substantially, two measures (mental health treatment penetration and antipsychotic medication for people with schizophrenia) unchanged, and four measures worsening. It is possible that some lack of improvement may be attributable to the impacts of the COVID-19 PHE, which spanned the study period.*
- *Rates of 30-day follow-up after hospitalizations for mental illness and 30-day readmissions for psychiatric conditions declined, and these rates were particularly low among individuals with SMI.*
- *Measures were highest among white enrollees, with disparities apparent across other racial and ethnic groups. Black enrollees experienced worse outcomes than the state average across all metrics, with particularly low rates of antidepressant medication continuation.*

Domain 5: Mental Health Care

Statewide Rates, 2022-2018 Change, and 2022-2020 Change

		2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
Mental Health Treatment Penetration	[3]	53.9%	-0.1%	-0.4%*	547,837
Antidepressant Medication for Adults (12 Weeks)	[1]	64.8%	13.8%*	4.7%*	33,310
Antidepressant Medication for Adults (6 Months)	[1]	47.1%	12.1%*	3.6%*	33,310
Antipsychotic Medication for People with Schizophrenia	[0]	62.8%	-1.1%	-0.7%	8,129
Diabetes Screening for People with Schizophrenia/Bipolar Disorder	[0]	74.6%	-4.0%*	-1.7%*	17,071
30-Day Follow-Up After ED Visit for Mental Illness	[3]	65.1%	-9.2%*	-2.2%*	8,150
30-Day Follow-Up After Hospitalization for Mental Illness	[3]	65.5%	-11.7%*	-3.5%*	10,724
30-Day Hospital Readmission for a Psychiatric Condition	[0] ↓	14.7%	1.9%*	-0.3%	8,505

Measures by Health Condition and Geographic Area, 2022

Enrollees with chronic illness, enrollees with SMI, and enrollees living in rural areas, and enrollees living in high-poverty areas.

		Chronic	SMI	Rural	High Poverty
Mental Health Treatment Penetration	[3]	55.2%	76.4%	53.3%	54.6%
Antidepressant Medication for Adults (12 Weeks)	[1]	64.8%	59.5%	63.4%	61.7%
Antidepressant Medication for Adults (6 Months)	[1]	47.3%	44.1%	45.0%	44.1%
Antipsychotic Medication for People with Schizophrenia	[0]	62.8%	63.4%	63.2%^	59.2%
Diabetes Screening for People with Schizophrenia/Bipolar Disorder	[0]	74.7%	74.8%	78.0%	75.3%
30-Day Follow-Up After ED Visit for Mental Illness	[3]	66.2%	70.5%	70.0%	64.3%
30-Day Follow-Up After Hospitalization for Mental Illness	[3]	66.5%	64.4%	70.0%	65.5%
30-Day Hospital Readmission for a Psychiatric Condition	[0] ↓	14.7%	17.3%	12.1%^	11.8%

Measures by Race and Ethnicity, 2022

AI/AN, Asian, Black, HI/PI, Hispanic, and White enrollees.

		AI/AN	Asian	Black
Mental Health Treatment Penetration	[3]	52.9%	47.6%	51.8%
Antidepressant Medication for Adults (12 Weeks)	[1]	54.6%	69.1%	54.7%
Antidepressant Medication for Adults (6 Months)	[1]	38.3%	50.9%	34.9%
Antipsychotic Medication for People with Schizophrenia	[0]	54.5%^	72.2%^	54.8%
Diabetes Screening for People with Schizophrenia/Bipolar Disorder	[0]	78.2%^	71.1%^	72.7%
30-Day Follow-Up After ED Visit for Mental Illness	[3]	57.3%^	66.8%^	61.9%^
30-Day Follow-Up After Hospitalization for Mental Illness	[3]	66.9%^	64.0%^	60.0%
30-Day Hospital Readmission for a Psychiatric Condition	[0] ↓	14.0%^	9.4%^	15.4%^

		HI/PI	Hispanic	White
Mental Health Treatment Penetration	[3]	47.8%	54.2%	54.7%
Antidepressant Medication for Adults (12 Weeks)	[1]	62.0%^	57.4%	68.1%
Antidepressant Medication for Adults (6 Months)	[1]	42.9%^	39.2%	50.8%
Antipsychotic Medication for People with Schizophrenia	[0]	54.6%^	58.0%	65.7%
Diabetes Screening for People with Schizophrenia/Bipolar Disorder	[0]	71.3%^	74.6%	74.9%
30-Day Follow-Up After ED Visit for Mental Illness	[3]	69.4%^	63.5%	67.0%
30-Day Follow-Up After Hospitalization for Mental Illness	[3]	63.2%^	66.0%	66.4%

Domain 6: Oral Health Care

This domain includes the following measures:

- **Preventive or Restorative Dental Services.** Percentage of Apple Health enrollees who received preventive or restorative dental services.
- **Topical Fluoride at a Medical Visit.** Percentage of children ages 5 and younger who received topical fluoride from a non-dental medical provider during a medical visit.
- **Periodontal Exam for Adults.** Percentage of Apple Health enrollees ages 30 and over with a history of periodontitis who received an oral or periodontal evaluation.

KEY FINDINGS

- *Measures of oral health care worsened between the baseline and the PHE, with the largest relative decrease occurring in topical fluoride at a medical visit, with only 2.1% of eligible enrollees receiving this treatment. Although periodontal exams for adults decreased between the baseline and the PHE, there was a significant improvement between the PHE and 2022, suggesting the potential for recovery or return to pre-PHE rates. (Note that most of the Medicaid oral health benefit is carved out of MCO contracts).*
- *Enrollees with SMI had lower rates of Preventive or Restorative Dental Services and Periodontal Exams.*
- *Enrollees in rural areas and high-poverty areas had substantially lower rates of Topical Fluoride at a Medical Visit.*

Domain 6: Oral Health Care

Statewide Rates, 2022-2018 Change, and 2022-2020 Change

		2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
Preventive or Restorative Dental Services	[1]	39.4%	-4.3%*	1.0%*	1,697,647
Topical Fluoride at a Medical Visit	[1]	2.1%	-2.3%*	-1.1%*	262,881
Periodontal Exam for Adults	[2]	46.5%	-3.2%*	6.2%*	76,233

Measures by Health Condition and Geographic Area, 2022

Enrollees with chronic illness, enrollees with SMI, and enrollees living in rural areas, and enrollees living in high-poverty areas.

		Chronic	SMI	Rural	High Poverty
Preventive or Restorative Dental Services	[1]	38.7%	28.2%	43.0%	41.9%
Topical Fluoride at a Medical Visit	[1]	3.2%	NA	0.9%	1.7%
Periodontal Exam for Adults	[2]	47.8%	45.9%	47.0%	45.7%

Measures by Race and Ethnicity, 2022

AI/AN, Asian, Black, HI/PI, Hispanic, and White enrollees.

		AI/AN	Asian	Black
Preventive or Restorative Dental Services	[1]	36.7%	39.7%	38.4%
Topical Fluoride at a Medical Visit	[1]	2.1%	2.3%	2.4%
Periodontal Exam for Adults	[2]	41.4%	54.4%	45.1%

		HI/PI	Hispanic	White
Preventive or Restorative Dental Services	[1]	33.6%	50.4%	33.9%
Topical Fluoride at a Medical Visit	[1]	2.9%	1.8%	2.4%
Periodontal Exam for Adults	[2]	45.9%	48.7%	44.5%

Domain 7: Care for People with Chronic Conditions

This domain includes the following measures:

- **Controller Medication for Asthma.** Percentage of Apple Health enrollees ages 5 to 64 with persistent asthma who had a ratio of controller medication to total asthma medications of 0.5 or greater.
- **Eye Exam for People with Diabetes.** Percentage of Apple Health enrollees ages 18 to 64 with diabetes who had an eye exam by an eye care professional.
- **Hemoglobin A1c Testing for People with Diabetes.** Percentage of Apple Health enrollees ages 18 to 64 with diabetes who had a hemoglobin A1c test.
- **Kidney Health Evaluation with Patients with Diabetes.** Percentage of Apple Health enrollees ages 18 to 64 with diabetes (type 1 and type 2) who received an annual kidney health evaluation.
- **Statin Medication for Cardiovascular Disease.** Percentage of men ages 21 to 64 and women ages 40 to 64 with atherosclerotic cardiovascular disease who received a high- or moderate-intensity statin medication.

KEY FINDINGS

- *Measures of the quality of care for people with chronic conditions showed mixed performance between the baseline and 2022. Measures for the use of controller medication for asthma improved substantially (+22.9%) between the baseline and 2022. However, quality measures for diabetes care showed moderate decreases between the baseline and 2022, while the appropriate use of statin medications did not change.*
- *Enrollees with SMI generally experienced worse outcomes across most measures.*
- *American Indian and Alaska Native and Black Apple Health enrollees generally had worse quality on measures of the quality of care for people with chronic conditions.*

Domain 7: Care for People with Chronic Conditions

Statewide Rates, 2022-2018 Change, and 2022-2020 Change

		2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
Controller Medication for Asthma	[2]	74.3%	22.9%*	11.2%*	10,386
Eye Exam for People with Diabetes	[2]	35.4%	-2.9%*	-3.1%*	57,794
Hemoglobin A1c Testing for People with Diabetes	[2]	77.8%	-2.0%*	0.7%*	61,709
Kidney Health Evaluation for People with Diabetes	[2]	39.3%	-4.0%*	0.6%*	61,660
Statin Medication for Cardiovascular Disease	[1]	82.5%	-0.3%	-1.0%	5,677

Measures by Health Condition and Geographic Area, 2022

Enrollees with chronic illness, enrollees with SMI, and enrollees living in rural areas, and enrollees living in high-poverty areas.

		Chronic	SMI	Rural	High Poverty
Controller Medication for Asthma	[2]	74.7%	73.8%^	74.9%	73.8%
Eye Exam for People with Diabetes	[2]	35.7%	32.7%	37.1%	36.6%
Hemoglobin A1c Testing for People with Diabetes	[2]	78.1%	75.4%	81.7%	77.6%
Kidney Health Evaluation for People with Diabetes	[2]	39.4%	32.2%	39.4%	40.2%
Statin Medication for Cardiovascular Disease	[1]	82.5%	77.4%^	82.2%^	80.8%

Measures by Race and Ethnicity, 2022

AI/AN, Asian, Black, HI/PI, Hispanic, and White enrollees.

		AI/AN	Asian	Black
Controller Medication for Asthma	[2]	57.4%^	75.9%^	70.6%^
Eye Exam for People with Diabetes	[2]	33.4%	44.3%	32.3%
Hemoglobin A1c Testing for People with Diabetes	[2]	73.0%	85.7%	73.8%
Kidney Health Evaluation for People with Diabetes	[2]	34.6%	49.2%	39.0%
Statin Medication for Cardiovascular Disease	[1]	74.9%^	93.4%^	77.5%^

		HI/PI	Hispanic	White
Controller Medication for Asthma	[2]	77.6%^	73.4%	76.2%
Eye Exam for People with Diabetes	[2]	34.2%	40.1%	33.3%
Hemoglobin A1c Testing for People with Diabetes	[2]	75.5%	80.3%	77.1%
Kidney Health Evaluation for People with Diabetes	[2]	40.5%	42.7%	36.8%
Statin Medication for Cardiovascular Disease	[1]	83.7%^	86.7%^	81.9%

Domain 8: Emergency Department, Hospital and Institutional Care Use

This domain includes the following measures:

- **Ratio of Home and Community-Based Care Use to Nursing Facility Use.** Months of home and community-based services received by Apple Health enrollees ages 18 and over as a percentage of total months of long-term care received.
- **Hospital Readmission Within 30 Days.** Percentage of hospital stays among Apple Health enrollees ages 18 and over with unplanned readmission to the hospital within 30 days.
- **ED Visit Rate.** Number of ED visits, including visits related to mental health and SUD, per 1,000 member months.
- **Acute Hospital Use Among Adults.** Number of acute inpatient discharges among Apple Health enrollees ages 18 or older per 1,000 enrollees during the measurement year.

KEY FINDINGS

- *With the exception of hospital readmissions within 30 days, which showed a slight (-0.8%) increase, most measures moved in the desired direction, with ED visits dropping by 5.7 visits per 1,000 member months.*
- *Enrollees with SMI exhibit substantially higher use of acute care (ED and hospital use) relative to the state average. Enrollees with chronic conditions and those living in high-poverty areas had higher rates of ED and acute hospital use.*
- *American Indian and Alaska Native and Black Apple Health enrollees experienced substantially worse outcomes on ED and hospital use metrics relative to the state average.*

Domain 8: Emergency Department, Hospital and Institutional Care Use

Statewide Rates, 2022-2018 Change, and 2022-2020 Change

		2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
Ratio of Home and Community-Based Care Use to Nursing Facility Use	[0]	95.6%	1.9%*	0.3%	16,743
Hospital Readmission within 30 Days	[3] ↓	14.3%	0.8%*	-0.1%	42,490
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	41.5	-5.7*	3.7*	1,925,252
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	46.4	-3.0*	-1.4*	1,024,164

Measures by Health Condition and Geographic Area, 2022

Enrollees with chronic illness, enrollees with SMI, and enrollees living in rural areas, and enrollees living in high-poverty areas.

		Chronic	SMI	Rural	High Poverty
Ratio of Home and Community-Based Care Use to Nursing Facility Use	[0]	95.7%	95.0%	96.1%	95.4%
Hospital Readmission within 30 Days	[3] ↓	14.2%	22.1%	11.4%	14.0%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	63.3	166.7	41.2	49.6
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	72.6	183.3	43.9	51.0

Measures by Race and Ethnicity, 2022

AI/AN, Asian, Black, HI/PI, Hispanic, and White enrollees.

		AI/AN	Asian	Black
Ratio of Home and Community-Based Care Use to Nursing Facility Use	[0]	92.8%^	95.8%^	95.7%
Hospital Readmission within 30 Days	[3] ↓	16.1%	11.9%	17.9%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	53.9	20.9	52.8
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	69.4	23.5	50.7

		HI/PI	Hispanic	White
Ratio of Home and Community-Based Care Use to Nursing Facility Use	[0]	96.0%^	95.6%	95.8%
Hospital Readmission within 30 Days	[3] ↓	11.1%	11.4%	14.5%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	35.5	41.5	42.7
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	46.8	31.1	53.0

Domain 9: Substance Use Disorder Care

This domain includes the following measures:

- **Substance Use Disorder Treatment for People with Treatment Need.** Percentage of Apple Health enrollees ages 12 and over with an SUD treatment need who received at least one qualifying SUD treatment.
- **Alcohol or Other Drug Treatment (Initiation).** Percentage of Apple Health enrollees ages 13 and over with a new episode of AOD dependence who received treatment within 14 days of diagnosis.
- **Alcohol or Other Drug Treatment (Engagement).** Percentage of Apple Health enrollees who initiated treatment and had two or more additional AOD services within 34 days of the initial visit.
- **30-Day Follow-Up After ED Visit for Alcohol/Drug Abuse/Dependence.** Percentage of ED visits among Apple Health enrollees ages 13 and over with a diagnosis of AOD dependence who had a follow-up outpatient visit for AOD within 30 days of ED visit.

KEY FINDINGS

- *For the state as a whole, performance on all metrics improved between baseline and 2022. However, there were some slight decreases in performance between the PHE and 2022.*
- *Measures for residents of rural areas were slightly worse than the state average for most measures.*
- *The quality of substance use treatment measures was lower for Asian, Black, Hawaiian/Pacific Islander, and Hispanic Apple Health enrollees relative to the state average.*

Domain 9: Substance Use Disorder Care

Statewide Rates, 2022-2018 Change, and 2022-2020 Change

		2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
Substance Use Disorder Treatment for People with Treatment Need	[3]	36.5%	2.6%*	-1.7%*	162,122
Alcohol or Other Drug Treatment: Initiation	[0]	40.5%	7.0%*	0.3%	48,038
Alcohol or Other Drug Treatment: Engagement	[0]	14.1%	2.8%*	-1.1%*	48,038
30-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	40.4%	3.5%*	-2.9%*	13,079

Measures by Health Condition and Geographic Area, 2022

Enrollees with chronic illness, enrollees with SMI, and enrollees living in rural areas, and enrollees living in high-poverty areas.

		Chronic	SMI	Rural	High Poverty
Substance Use Disorder Treatment for People with Treatment Need	[3]	35.8%	40.5%	35.6%	36.4%
Alcohol or Other Drug Treatment: Initiation	[0]	40.4%	47.7%	39.2%	39.8%
Alcohol or Other Drug Treatment: Engagement	[0]	13.9%	14.5%	13.8%	13.7%
30-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	40.7%	53.0%	40.7%	40.3%

Measures by Race and Ethnicity, 2022

AI/AN, Asian, Black, HI/PI, Hispanic, and White enrollees.

		AI/AN	Asian	Black
Substance Use Disorder Treatment for People with Treatment Need	[3]	41.0%	29.7%	29.5%
Alcohol or Other Drug Treatment: Initiation	[0]	40.6%	36.2%^	37.8%
Alcohol or Other Drug Treatment: Engagement	[0]	15.7%	10.5%^	9.8%
30-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	35.2%	36.9%^	31.3%

		HI/PI	Hispanic	White
Substance Use Disorder Treatment for People with Treatment Need	[3]	28.7%	32.3%	38.5%
Alcohol or Other Drug Treatment: Initiation	[0]	38.3%^	36.6%	42.0%
Alcohol or Other Drug Treatment: Engagement	[0]	11.4%^	12.5%	15.1%
30-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	34.9%^	37.7%	43.9%

Domain 10: Opioid Prescribing and Opioid Use Disorder Treatment

This domain includes the following measures:

- **People with an Opioid Prescription ≥ 50mg MED.** Percentage of Apple Health enrollees prescribed chronic opioid therapy with dosage greater than or equal to 50mg morphine-equivalent dose.
- **People with an Opioid Prescription ≥ 90mg MED.** Percentage of Apple Health enrollees prescribed chronic opioid therapy with dosage greater than or equal to 90mg morphine-equivalent dose.
- **People with an Opioid Prescription who were Prescribed a Sedative.** Percentage of Apple Health enrollees prescribed chronic opioids who were also prescribed a chronic sedative.
- **Opioid Use Disorder Treatment for People with Treatment Need.** Percentage of Apple Health enrollees ages 18 and over with an OUD treatment need who received medication-assisted treatment or medication-only treatment for OUD.

KEY FINDINGS

- *Most opioid measures moved in a positive direction between the baseline and 2022, with a large increase (+11.5%) in treatment for those who needed it. These changes occurred during a period where the demand for opioid treatment likely increased.*
- *Opioid prescriptions were slightly higher, and treatment rates slightly lower, among enrollees with SMI.*
- *Outcomes for 3 of 4 metrics were substantially worse for Black Apple Health enrollees.*

Domain 10: Opioid Prescribing and Opioid Use Disorder Treatment

Statewide Rates, 2022-2018 Change, and 2022-2020 Change

		2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
People with an Opioid Prescription >= 50mg MED	[1] ↓	30.9%	-0.6%	-0.7%	10,658
People with an Opioid Prescription >= 90mg MED	[1] ↓	11.1%	-3.4%*	-0.6%	10,658
People with an Opioid Prescription who were Prescribed a Sedative	[1] ↓	15.3%	-6.2%*	-1.2%*	10,658
Opioid Use Disorder Treatment for People with Treatment Need	[3]	55.6%	11.5%*	-0.3%	62,962

Measures by Health Condition and Geographic Area, 2022

Enrollees with chronic illness, enrollees with SMI, and enrollees living in rural areas, and enrollees living in high-poverty areas.

		Chronic	SMI	Rural	High Poverty
People with an Opioid Prescription >= 50mg MED	[1] ↓	31.0%	32.4%	29.5%	28.9%
People with an Opioid Prescription >= 90mg MED	[1] ↓	11.0%	12.1%	10.2%	9.7%
People with an Opioid Prescription who were Prescribed a Sedative	[1] ↓	15.2%	22.9%	15.4%	14.6%
Opioid Use Disorder Treatment for People with Treatment Need	[3]	55.3%	51.6%	55.9%	54.9%

Measures by Race and Ethnicity, 2022

AI/AN, Asian, Black, HI/PI, Hispanic, and White enrollees.

		AI/AN	Asian	Black
People with an Opioid Prescription >= 50mg MED	[1] ↓	29.0%^	18.9%^^	38.7%^
People with an Opioid Prescription >= 90mg MED	[1] ↓	10.3%^	NA	13.7%^
People with an Opioid Prescription who were Prescribed a Sedative	[1] ↓	14.2%^	20.3%^^	9.9%^
Opioid Use Disorder Treatment for People with Treatment Need	[3]	52.5%	50.8%^	42.4%

		HI/PI	Hispanic	White
People with an Opioid Prescription >= 50mg MED	[1] ↓	24.3%^^	25.7%^	31.0%
People with an Opioid Prescription >= 90mg MED	[1] ↓	NA	8.1%^	11.1%
People with an Opioid Prescription who were Prescribed a Sedative	[1] ↓	NA	14.2%^	15.7%
Opioid Use Disorder Treatment for People with Treatment Need	[3]	47.0%^	52.0%	58.2%

Domain 11: Health Care Expenditures

This domain includes the following expenditure measures:
Note that expenditure measures are based on imputed prices to account for MCO encounter claims.

- **Primary Care Spending Per Member Per Month (PMPM).** Average monthly expenditures for primary care services.
- **Emergency Department Spending Per Member, Per Month.** Average monthly expenditures for services provided in the ED that do not result in an inpatient admission.
- **Other Outpatient Spending Per Member, Per Month.** Average monthly expenditures for outpatient care that excludes primary care and ED services.
- **Inpatient Spending Per Member, Per Month.** Average monthly expenditures for inpatient facility and professional services.
- **LTSS Spending Per Member Per Month.** Average monthly expenditures for LTSS
- **Pharmacy Spending Per Member, Per Month.** Average monthly expenditures for prescription drugs.
- **Total Spending Per Member Per Month, excluding pharmacy.** Average monthly expenditures for all services combined, excluding prescription drug expenditures.
- **Total Spending Per Member Per Month.** Average monthly expenditures for all services combined, including prescription drug expenditures.

KEY FINDINGS

- *Expenditures on most measures increased between baseline and 2022. Total expenditures increased by $47 PMPM. The largest relative increase was in LTSS spending (+$20 PMPM), while outpatient expenditures decreased slightly (-$8 PMPM).*
- *Expenditures were higher across all measures for enrollees with chronic conditions or SMI. Rural residents had lower overall expenditures, but higher ED, primary care, and outpatient expenditures.*
- *Expenditures were highest among American Indian and Native Alaska enrollees and lowest among Hispanic enrollees.*

Domain 11: Health care expenditures

Statewide Rates, 2022-2018 Change, and 2022-2020 Change

		2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
Primary Care Spending Per Member, Per Month	[0] ↓	$20	$2*	$3*	2,129,301
Emergency Department Spending Per Member, Per Month	[0] ↓	$11	$1*	$2*	2,129,301
Other Outpatient Spending Per Member, Per Month	[0] ↓	$137	-$8*	$1	2,129,301
Inpatient Spending Per Member, Per Month	[0] ↓	$96	$16*	-$1	2,129,301
LTSS Spending Per Member, Per Month	[0] ↓	$57	$20*	$6*	2,129,301
Pharmacy Spending Per Member, Per Month	[0] ↓	$85	$17*	$3*	2,129,301
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$320	$30*	$12*	2,129,301
Total Spending Per Member, Per Month	[0] ↓	$405	$47*	$15*	2,129,301

Measures by Health Condition and Geographic Area, 2022

Enrollees with chronic illness, enrollees with SMI, and enrollees living in rural areas, and enrollees living in high-poverty areas.

		Chronic	SMI	Rural	High Poverty
Primary Care Spending Per Member, Per Month	[0] ↓	$29	$46	$21	$20
Emergency Department Spending Per Member, Per Month	[0] ↓	$16	$42	$15	$13
Other Outpatient Spending Per Member, Per Month	[0] ↓	$240	$587	$157	$148
Inpatient Spending Per Member, Per Month	[0] ↓	$164	$770	$85	$102
LTSS Spending Per Member, Per Month	[0] ↓	$109	$412	$36	$53
Pharmacy Spending Per Member, Per Month	[0] ↓	$163	$444	$79	$84
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$558	$1,856	$314	$337
Total Spending Per Member, Per Month	[0] ↓	$721	$2,301	$394	$421

Domain 11: Health care expenditures (continued)

Measures by Race and Ethnicity, 2022

AI/AN, Asian, Black, HI/PI, Hispanic, and White enrollees.

		AI/AN	Asian	Black
Primary Care Spending Per Member, Per Month	[0] ↓	$19	$17	$17
Emergency Department Spending Per Member, Per Month	[0] ↓	$15	$5	$12
Other Outpatient Spending Per Member, Per Month	[0] ↓	$279	$87	$121
Inpatient Spending Per Member, Per Month	[0] ↓	$143	$60	$118
LTSS Spending Per Member, Per Month	[0] ↓	$48	$58	$62
Pharmacy Spending Per Member, Per Month	[0] ↓	$87	$74	$75
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$504	$227	$330
Total Spending Per Member, Per Month	[0] ↓	$591	$301	$405

		HI/PI	Hispanic	White
Primary Care Spending Per Member, Per Month	[0] ↓	$14	$20	$22
Emergency Department Spending Per Member, Per Month	[0] ↓	$8	$11	$11
Other Outpatient Spending Per Member, Per Month	[0] ↓	$100	$109	$158
Inpatient Spending Per Member, Per Month	[0] ↓	$99	$72	$103
LTSS Spending Per Member, Per Month	[0] ↓	$39	$24	$71
Pharmacy Spending Per Member, Per Month	[0] ↓	$59	$53	$111
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$261	$236	$364
Total Spending Per Member, Per Month	[0] ↓	$320	$289	$475

Exhibit 1.5. Notable Changes Across Full MTP 1.0 Evaluation: Statewide Performance Under DSRIP

Domain	Baseline/Interim	Summative	Notes on Change Across MTP 1.0 Evaluation
Social Determinants of Health	Mostly unchanged	**Improved**	• Homelessness and Arrests decreased (an improvement) • Employment decreased slightly between baseline and 2022, increased 2020-2022
Access to Primary and Preventative Care	Mostly unchanged	**Worsened**	Adults' Access to Primary Care had largest decrease, appears to be timed with the PHE
Reproductive and Maternal Health Care	Mostly unchanged	**Worsened**	Measures worsened across the evaluation, except for Timely Prenatal Care
Prevention and Wellness	Mostly unchanged	**Mixed**	• Three measures improved (Immunizations for Children; Chlamydia Screening; Cervical Cancer Screening) • Three measures worsened (Breast Cancer Screening; Colorectal Cancer Screening)
Mental Health Care	Mostly unchanged, some variation	**Mixed**	• Four measures improved moderately • Four measures worsened substantially (Hospital Readmission for a Psychiatric Condition; Antipsychotic Medication for People with Schizophrenia; 30-day Follow-Up after Emergency Department Visits for Mental Illness)
Oral Health Care	Mostly unchanged	**Worsened**	Largest decrease in Topical Fluoride at a Medical Visit
Care for People with Chronic Conditions	• Mostly unchanged *(Baseline report)* • Modest improvement *(Interim Report)*	**Mixed**	• Controller Medication for Asthma improved substantially • Quality measures for diabetes showed moderate decreases
Emergency Department, Hospital, and Institutional Care Use	Mostly unchanged, slight worsening	**Improved**	Excluding Hospital Readmissions within 30 days, most measures improved
Substance Use Disorder Care	• Improved *(Baseline Report)* • Mostly improved *(Interim Report)*	**Improved**	Measures improved; however, there were slight decreases in performance between the PHE and 2022
Opioid Prescribing and Opioid Use Disorder Treatment	Improved	**Improved**	Most measures improved, including a large improvement in Treatment for Opioid Use Disorder Treatment Need

Discussion

In this chapter, we evaluated changes in 51 metrics across 11 domains. In general, performance declined across most measures, although this may be expected with the disruptions from the COVID-19 PHE. Domains where performance improved included SDOH (with reductions in homelessness and arrest rates but a slight decrease in employment), ED, hospital, and institutional care use, where most measures improved (although readmissions increased slightly) and, most notably, SUD and OUD treatment, which improved across all measures.

Improvements were not observed across most measures in the domain of mental health. Although measures of antidepressant medication treatment and continuation improved, rates of 30-day follow-up after hospitalizations for mental illness and 30-day readmissions for psychiatric conditions declined. (Notably, antidepressant medication treatment was included as a quality measure in MCO contracts, whereas the 30-day readmission measure was not.) Although most measures worsened between the baseline and 2022, some measures demonstrated improvement between the peak PHE years, suggesting a potential return to normal in some domains. For example, hemoglobin

A1c testing and kidney health evaluations for people with diabetes worsened between the baseline and 2022 but improved between the PHE and 2022.

The data in this report continue to point to persistent racial and ethnic disparities, with the most striking differences among Black and American Indian and Alaska Native populations. Across 51 quality measures, Black Apple Health enrollees experienced lower quality in 38 measures, and American Indian and Alaska Native Apple Health enrollees experienced lower quality in 37 measures.

Limitations. The results presented here include several limitations. We relied on administrative data, which are limited in their ability to provide a comprehensive assessment of the experience and quality of health care and overall quality of life. Given the wide variety of reforms and changes taking place in the health care system between 2017-2018 and 2022, we cannot directly attribute improvements during this time to MTP. Similarly, the COVID-19 PHE represents an unprecedented shock to the health care system, and it is not possible to cleanly disentangle the negative effects of the PHE from the potentially positive impacts of MTP and ACHs efforts. Although some measures showed relatively little change, we are unable to say whether those measures may have been worse in the absence of MTP. Further, it is possible that many of the HIPs directly or indirectly impacted the measures reported here in ways that are difficult to disentangle. For example, several HIPs led ACHs to focus on getting enrollees connected to primary care or social services, while others supported access to substance use treatment.

Assessing Progress Toward Value-Based Adoption Targets

KEY FINDINGS

- ***Adoption of value-based payment (VBP), measured at the MCO level, increased gradually during the waiver period.*** *At the same time, provider surveys suggest the proportion of overall Apple Health dollars flowing through VBP arrangements may be lower. This discrepancy arises from different measurement approaches: assessments of whether any contracts include VBP elements (from the MCO perspective) may overestimate the percentage of Apple Health revenue tied to VBP (from the provider perspective).*
- ***Growth in the proportion of primary care revenue paid through VBP arrangements slowed in 2021*** *after increasing between 2016 and 2018. Primary care practices reported that operational challenges from the COVID-19 PHE reduced their willingness to adopt new payment models or take on additional financial risk, hindering VBP advances.*
- ***ACHs supported the adoption of VBP, although they had little direct leverage on contracting.*** *Small practice size, payer mix, and complexity of patient panels made VBP arrangements less viable for small primary care practices and behavioral health provider organizations. MCOs had greater leverage than ACHs in implementing VBP. They focused VBP efforts on primary care practices, with less emphasis on other provider types.*
- ***The state's current strategy for assessing VBP adoption through MCO-level surveys may not offer sufficient insight into the details of VBP adoption within Apple Health*** *and the extent to which HCA's goals are being met. The 2023 Paying for Value report noted several areas for strengthening the state's monitoring of VBP arrangements to better understand VBP adoption and ensure VBP arrangements had the desired impact on quality, cost, and equity.*

Background

MTP's VBP Targets and Goals

In 2016, HCA set targets for VBP adoption by state-financed health programs, including Apple Health and public employee and educator plans. These targets began at 20% for 2016 and increased incrementally to 90% for 2021.7 Following the COVID-19 PHE, the state obtained permission from CMS to revise the 2021-2022 goals from 90% to 85%. As part of its VBP roadmap, the state adopted the Health Care Payment Learning & Action Network (HCP-LAN) framework, a standard national tool for categorizing health care payment arrangements (see Exhibit 2.1). HCA's definition of VBP included payments that fell into HCP-LAN categories 2C or above, although the waiver included additional goals for payments in HCP-LAN categories 3A or above, which started at 10% in 2017 and increased to 50% in 2021.[2]

In addition to overall targets for VBP, HCA promoted payer- and provider-specific VBP models. These included a multi-payer primary care transformation model and an Apple Health-focused capitated payment model for Federally Qualified Health Centers (FQHCs) and rural health clinics (RHCs).

Exhibit 2.1. Health Care Payment Learning & Action Network Value-Based Payment Categories

CATEGORY 1: Fee-for-service payment with no link to quality	Not a value-based payment arrangement
CATEGORY 2: Fee-for-service payment with links to quality	2A: Providers receive payments for infrastructure and operations, such as payments for care coordination or health information technology investments
	2B: Providers receive bonus payments for reporting quality data or penalties for not reporting data
	2C: Providers receive bonus payments for meeting quality goals
	2D: Providers receive bonus payments for meeting quality goals or incur penalties for failing to meet quality goals
CATEGORY 3: Fee-for-service payment with shared savings or shared risk and a link to quality	3A: Providers receive a portion of savings when health care service use or costs are below established targets
	3B: Providers receive a portion of savings when health care service use or costs are below established targets or incur a portion of losses when service use, or costs are above target
CATEGORY 4: Population-based payment with a link to quality	4A: Providers receive up-front payments covering all costs for a specific condition, such as cancer care
	4B: Providers receive up-front payments covering all costs for a specific group of patients

The Health Care Payment Learning & Action Network states that a payment arrangement must take quality and value into account to be designated as value-based. For the purpose of measuring VBP adoption, Washington considers the shaded arrangements as VBP arrangements. Source: Health Care Payment Learning & Action Network 2017

How to Read Results in this Section: Survey Analysis

This section of the report presents our analysis of quantitative survey data. Exhibits include unadjusted rates for the three years of data (2016, 2018, & 2021).

We use color to indicate the direction of change over time, comparing each of the latter time periods to the one that precedes it. Thus, 2018 rates are compared to 2016, and rates in 2021 are compared to those in 2018. When we see rates moving in the **desired direction**, cells are outlined in blue; when we see rates **worsening**, cells are outlined in orange. Changes greater than 1% are outlined; statistically significant changes (p-value <0.05) are further highlighted with shading of the appropriate color.

Each column contains the unadjusted rate at which practices reported participating in the specified type of payment arrangement.

	2016	2018	2021
Category 2C: Contracts with rewards for meeting quality goals on top of fee-for-service payments	46.2%	66.7%	83.9%
Category 3A: Contracts with potential shared savings from meeting cost or utilization targets	28.0%	53.8%	63.3%
Category 3B: Contracts with financial risk if cost or utilization targets were not met	20.0%	26.9%	23.3%
Category 4A: Prospective payments covering total cost of care for specific condition	12.0%	19.2%	10.3%
Category 4B: Prospective payments covering total costs of all care for a specific panel of patients	16.0%	15.4%	20.7%

*The last two columns are color coded to indicate whether rates **worsened** or **improved** since the previous period. Changes that were found to be statistically significant are further highlighted with shading.*

EXAMPLE:

More practices reported participating in the first four types of payment arrangements in 2018 than in 2016, so those rows are outlined in blue for 2018. However, this increase was only significant for Category 3A. Thus, it is the only cell that is shaded. Participation in Category 4B declined from 2016 to 2018 so it is outlined in orange, although that change was not significant.

Initiative 1: VBP Incentives (for ACHs and MCOs)

Both ACHs and MCOs had roles in promoting VBP and were rewarded when Apple Health payments through value-based arrangements met the state's annual targets. Under MTP Initiative 1, HCA created the MTP Project Toolkit that directed ACHs to provide training and technical assistance to provider organizations for adopting VBP arrangements. Examples included VBP readiness assessments and support for using risk stratification. ACHs were also required to encourage or incentivize providers to complete the state's annual Paying for Value surveys. ACHs earned a portion of project incentive payments when the state achieved annual VBP milestones.

As payers, MCOs held more direct levers for influencing payment arrangements and could promote VBP through contract negotiations with provider organizations. The state required MCOs to meet the waiver's annual VBP targets while improving quality performance, incentivizing these goals through a premium withhold. MCOs stood to earn back portions of the withhold by meeting overall VBP targets and targets for increasing the proportion of provider payments dependent on meeting quality improvement outcomes.[8]

Evaluation Approach

Our evaluation used a mixed methods approach, combining quantitative survey data and qualitative interview data (each are described in the respective analysis sections below) to assess the impact of MTP on progress toward meeting VBP penetration targets. Our evaluation focused on the following research questions:

- To what extent did participation in VBP arrangements increase from baseline to subsequent periods?
- What factors facilitated or impeded VBP adoption among MCOs and provider organizations?
- What kinds of delivery system or practice-level changes were associated with participation in VBP arrangements?

Quantitative Methods

We surveyed practices in two waves. The initial wave, conducted in 2019, asked about experiences in 2016 and 2018. A second wave, conducted in 2022, asked about experiences in 2021. Clinic managers or representatives with similar administrative roles were asked to complete the survey on behalf of the practice. The second survey wave only included practices that responded to the first survey. Out of an original sample of 275, 89 responded to the first survey, and 31 (of the 89) to the second. Despite multiple contacts with practices, response rates were low, a phenomenon that may be at least partly attributed to the COVID-19 PHE.

To measure VBP adoption among primary care practices over the waiver period, we asked whether practices participated in six kinds of VBP arrangements, with each arrangement corresponding to a VBP category defined by HCP-LAN in 2016, 2018, and 2021. We also asked practices to indicate the percentage of their total Medicaid revenue from payments that were dependent on meeting quality goals in 2016, 2018, and 2021 to assess the overall importance of VBP arrangements to practices.

Qualitative Methods

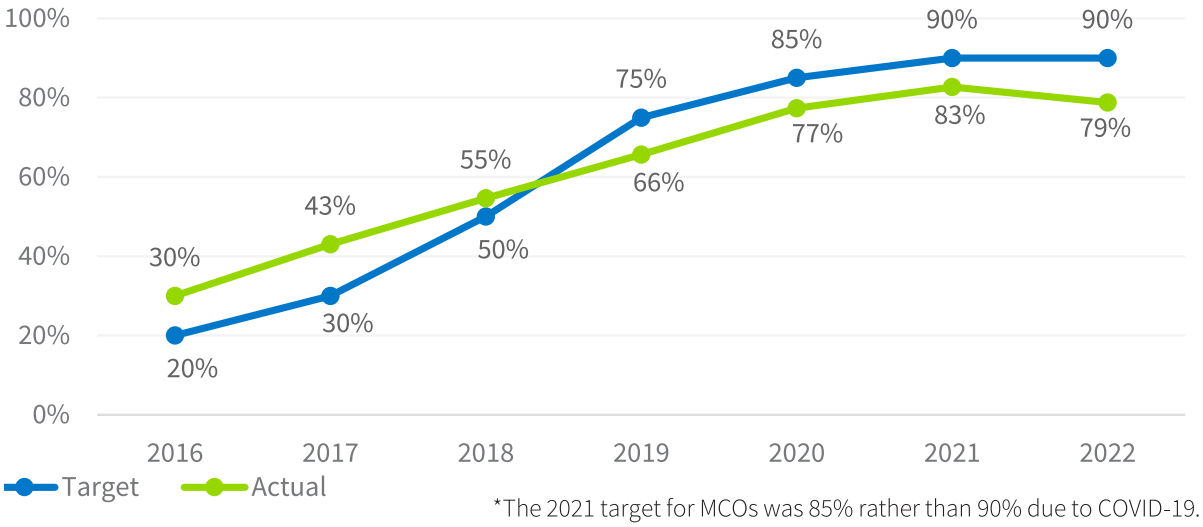
We conducted 29 interviews with leaders (e.g., practice managers or chief financial officers) employed at 24 medical provider organizations (e.g., primary care practices, FQHCs, or hospital systems). We conducted 1-2 interviews per organization. In addition, we conducted 20 interviews with leaders at 20 behavioral health agencies (e.g., practice managers or executive directors) to learn about their experiences. Additional details are provided in Appendix C.

Results

VBP Adoption

Survey responses indicated overall advances in the adoption of VBP through the waiver period, with some caveats. Adoption of VBP, as measured by the state in the *Paying for Value* survey, climbed during the MTP 1.0 period, with higher levels of payment reported through contracts with VBP components between 2016 and 2021 (Exhibit 2.2).[5] These data showed increased levels of Apple Health payments flowing through contracts that included VBP components each year from 2016 onward, hitting 66% in 2019 and 83% in 2021, then declining slightly to 79% in 2022. A 2021 survey[9] reported generally consistent adoption across regions, varying from 72% to 87% among ACHs. VBP arrangements reported by MCOs were concentrated in primary care, with half of MCOs reporting no VBP participation from providers in several other delivery areas, including behavioral health and perinatal care.

Exhibit 2.2. Total State-Financed Payments in VBP Over Time

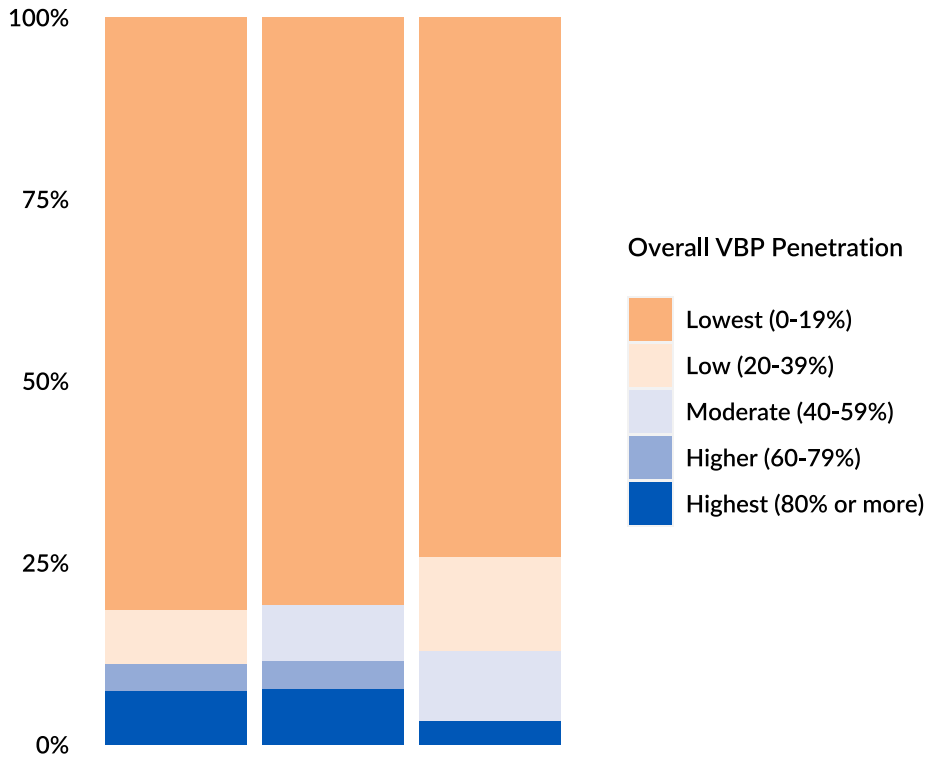


Source: 2023 Paying for Value survey results, Washington State Health Care Authority.

Our survey results, focused on provider organizations, offered a different view. Exhibit 2.3 displays clinic responses about the proportion of provider revenues linked to quality performance in 2016, 2018, and 2021. These data suggest that, even by 2021, approximately three-quarters of practices reported that less than 20% of their revenue flowed through VBP. The percentage of clinics reporting more than 80% grew slightly between 2016 and 2018 but was below 10% by 2021. Data from the state's *Paying for Value* survey and our survey exhibited a small dip in VBP in 2021 and 2022, possibly reflecting stressors on provider organizations in the wake of the COVID-19 pandemic.

Exhibit 2.4 shows rates at which practices participated in different HCP-LAN categories of VBP arrangements. Overall participation in VBP trended up from 2016 to 2021. However, participation rates declined slightly in two VBP categories that featured financial risk for providers (3B and 4A). Overall, participation in arrangements with financial risk remained much lower than in those with only potential financial rewards for providers. For example, in 2021, more than 80% of practices reported participating in contracts that provided rewards for meeting quality goals (Category 2C), but fewer than 25% were in arrangements with potential downside risk (Categories 3B, 4A, and 4B).

Exhibit 2.3. Percentages of Primary Care Practices at Different Levels of VBP Penetration in 2016, 2018, and 2021



Source: Population estimate based on responses to CHSE's primary care practice survey. See Appendix B for details on survey methodology and the Data Appendix Table for the number of responses and confidence intervals.

Exhibit 2.4. Percentage of Practices Participating in Different Categories of VBP Arrangements in 2016, 2018, and 2021

	2016	2018	2021
Category 2C: Contracts with rewards for meeting quality goals on top of fee-for-service payments	46.2%	66.7%	83.9%
Category 3A: Contracts with potential shared savings from meeting cost or utilization targets	28.0%	53.8%	63.3%
Category 3B: Contracts with financial risk if cost or utilization targets were not met	20.0%	26.9%	23.3%
Category 4A: Prospective payments covering total cost of care for specific condition	12.0%	19.2%	10.3%
Category 4B: Prospective payments covering total costs of all care for a specific panel of patients	16.0%	15.4%	20.7%

Source: Population estimate based on responses to CHSE's primary care practice survey.

Factors that Influenced VBP Adoption

ACHs had little direct leverage on contracting. The MTP Project Toolkit directed ACHs to promote VBP through training and technical assistance, and ACHs earned a portion of project incentive payments based on achieving VBP milestones. However, ACHs had limited leverage to facilitate VBP progress, as payment arrangements, contracts, and conversations were proprietary and typically negotiated between provider organizations and MCOs.

Given the limitations of their role, ACHs supported VBP progress in several ways. ACHs offered provider organizations training in VBP contract negotiation. They also encouraged their partners to participate in HCA's annual VBP survey and provide information about their perceived barriers and facilitators to adopting VBP. Finally, ACHs provided training directly or through consultants to support VBP infrastructure and capacity building. These efforts included training on electronic health record (EHR) reporting and documentation, using EHRs to identify care gaps, provide preventative services, track outcomes, conduct quality improvement activities, or use risk stratification methods and processes.

MCOs focused VBP contracting efforts on larger primary care providers and upside-risk arrangements. MCOs focused their VBP adoption efforts on FQHCs and other organizations that served a high proportion of Apple Health enrollees. These organizations were typically larger, provided medical care, and often had the financial margins to take on VBP risk, in addition to specialized staff to manage financial contracting and performance tracking and reporting. MCOs reported having a range of arrangements in place, but upside-risk arrangements that offered a quality bonus, like HCP-LAN Category 2C, seemed most common.

Small practice size, payer mix, and complexity of patient panels made VBP arrangements less viable for some providers. VBP arrangements were limited among small primary care practices and behavioral health provider organizations. The panel size, payer mix, and patient population (e.g., high-complexity or high-cost patients) influenced MCO interest and provider organization feasibility to adopt VBP models. Provider organizations may have contracted with as many as five MCOs, further reducing the number of covered lives included within any single MCO contract. Some provider organizations perceived that a smaller size or number of covered lives meant that MCOs were less likely to prioritize their needs or help them customize contracts in ways that would make VBP arrangements more feasible.

A variety of related factors were also likely to have limited VBP uptake. For example, clinics with low margins and flat revenue growth were concerned that contracts with withholds or downside risk would not be favorable. In other cases, clinics had underdeveloped HIT, which made it infeasible to document, measure, and report as needed to MCOs.

Behavioral health provider organizations experienced unique barriers to VBP. MCOs were inexperienced in working with behavioral health agencies, and behavioral health provider organizations lacked experience in brokering deals and contracts with MCOs. In addition, some MCOs already had total-cost-of-care payment arrangements with primary care providers in the same catchment area, which prevented behavioral health agencies in those same areas from being eligible for VBP arrangements. Finally, the state's shift to integrated MCO contracting (Integrated Managed Care) for behavioral health was not fully complete until January 2020. Thus, some MCOs maintained historical behavioral health payment arrangements through 2021 to allow providers time for administrative transitions to the new system.

Behavioral health provider organizations may need different VBP models than those typically used in general medical care settings. Attribution models assign patients to a provider or medical home to manage health outcomes and determine payment. However, attribution models are underdeveloped for behavioral health. In some cases, behavioral health providers partnered with general medical providers that held VBP contracts with MCOs, with the behavioral health provider receiving a portion of earned bonuses for shared patients. Nonetheless, attribution to behavioral health providers remains an area for further investigation. VBP adoption in behavioral health may also benefit from a more expansive list of behavioral health performance indicators and outcome measures.

Conclusion

Based on the state's annual payment survey findings, efforts to promote VBP within Apple Health have been a success, moving adoption from 30% in 2017 to 83% in 2021. At the same time, provider surveys suggest the proportion of overall Apple Health dollars flowing through VBP arrangements may not align with these figures. This discrepancy arises from different measurement approaches: assessments of whether any contracts include VBP elements (from the MCO perspective) may overestimate the percentage of Apple Health revenue tied to VBP (from the provider perspective).

Our evaluation also highlighted the challenges ACHs faced relative to MCOs in advancing VBP adoption. Although ACHs worked to support VBP adoption – providing training and infrastructure support to providers – ultimately, they did not hold the contracts or negotiating power and thus played a smaller role than MCOs.

We identified potential areas for future consideration, including the costs and benefits of bringing smaller clinics and behavioral health providers into VBP arrangements.

The state may benefit from identifying ways of assessing VBP adoption that more adequately capture progress toward its 2023-2027 VBP goals. These strategies could be developed in collaboration with providers and MCOs to enhance understanding of VBP implementation throughout the delivery system while minimizing reporting burdens. The state should also consider developing additional statewide VBP models for behavioral health that expand VBP into this area while promoting consistency in measurement and payment structures across MCOs.

CHAPTER 3

Assessing MTP's Impact on Health Care Workforce Capacity

KEY FINDINGS

- ***There were considerable and, in some cases, worsening workforce shortages from 2018 to 2021,*** *especially among medical assistants, primary care physicians, and administrative staff, highlighting the urgent need for strategic workforce development. Key informants from AHCs noted especially severe shortages of behavioral health providers.*
- ***Over half of the surveyed organizations reported concerns that staff shortages could lead to suboptimal outcomes for individuals with severe health conditions,*** *underscoring the critical link between workforce capacity and the quality of patient care.*
- ***ACHs provided education and training support aligned with the state's workforce goals,*** *including training the existing workforce in new skills, supporting internships and specialized training programs, and creating new community-based roles, all of which offered some potential promise in addressing immediate workforce needs.*
- ***ACHs had little direct leverage on state regulations and payment models.*** *Barriers to meeting the workforce needs included reimbursement rates and regulatory policies, but none of these issues were within the ACHs' area of influence. Most workforce issues needed resolution at the state or federal level, suggesting that regional organizations like ACHs were not well suited to address these workforce capacity barriers.*

Background

Workforce shortages have been reported across many health care settings, provider types, and support staff. Some observers have declared that the shortage of behavioral health providers has reached a crisis level. Policymakers anticipated that MTP would create new workforce demands and identified workforce capacity building as critical to achieving MTP's goals.

Evaluation Approach

Our evaluation used a mixed methods approach, combining quantitative survey data and qualitative interview data (described in the respective analysis sections below) to assess the impact of MTP on the development of workforce capacity needed to support health system transformation.

The following research questions informed our evaluation:

- What was the perceived workforce capacity across the state prior to MTP?
- How has MTP changed the demand for certain personnel and training, and to what extent can those demands be met?
- Are there regulatory, informational, or financial barriers to meeting workforce needs?
- What gaps in competencies or skills are present in the existing workforce?
- How has MTP changed the demand for certain competencies or skills among the existing workforce?

Quantitative Methods

We surveyed practices in two waves. The initial wave, conducted in 2019, asked about experiences in 2016 and 2018. A second wave, conducted in 2022, asked about experiences in 2021. Clinic managers or representatives with similar administrative roles were asked to complete the survey on behalf of the practice. The second survey included only practice that responded to the first survey. Out of an original sample of 275, 89 responded to the first survey, and 31 (of the 89) to the second. Despite multiple contacts with practices, response rates were low, a phenomenon that may be at least partly attributed to the COVID-19 PHE. Full survey questions and response data are available in the Data Appendix.

To understand the role of workforce over the waiver period, our survey asked primary care practices if they needed but had difficulty hiring or retaining 21 types of clinicians and non-clinician health care workers. We also asked primary care practices if they were concerned about suboptimal outcomes for seven subgroups of Apple Health enrollees due to workforce shortages. In addition, we queried clinics about the types of delivery-system changes they had engaged in during the waiver. Although not directly related to workforce, these questions were designed to provide insight into the changes that clinics were engaged in that might require new types of workers or skills.

Qualitative Methods

We conducted 29 interviews with leaders (e.g., practice managers or chief financial officers) employed at 24 medical provider organizations (e.g., primary care practices, Federally Qualified Health Centers, or hospital systems). We conducted 1-2 interviews per organization. In addition, we conducted 20 interviews with leaders at 20 behavioral health agencies (e.g., practice managers or executive directors) to learn about their experiences. Additional details are provided in Appendix C.

Results

Demand for Health Care Workers

To assess health care workforce demand, we asked primary care practices whether they needed — but had difficulty hiring or retaining — 21 types of health care workers.

Staff shortages were widespread in 2018 and generally worsened in 2021, although not all changes were statistically significant. Exhibit 3.1 shows the percentage of practices that reported shortages in 2016, 2018, and 2021. More than half reported shortages for medical assistants, registered nurses, nurse practitioners, primary care physicians, care coordinators, licensed marriage or family therapists, and administrative and related types of staff. The most significant shortages occurred among the demand for medical assistants, with 93.5% of practices reporting shortages (an increase of 22.5 percentage points from 2018), and primary care physicians, with 77.4% of practices reporting shortages. In addition to the increased shortage of medical assistants, there were large and statistically significant increases in the demand for administrative staff (increasing to 63.3% in 2021 from 29.0% in 2018) and licensed marriage or family therapists (rising to 41.9% in 2021 from 16.1% in 2018).

Exhibit 3.1. Workforce Shortages Reported by Primary Care Practices

	2016	2018	2021
Social workers	50.0%	58.1%	58.1%
Mental health counselors	46.7%	64.5%	64.5%
Licensed marriage or family therapists	16.7%	16.1%	41.9%
Care coordinators/Care managers	33.3%	45.2%	61.3%
Community health workers	20.0%	30.0%	23.3%
Peer-to-peer counselors	13.3%	16.1%	10.3%
Administrative staff	23.3%	29.0%	63.3%
Other kinds of staff	27.3%	58.3%	63.2%
Primary care physicians	76.7%	63.3%	77.4%
Specialist physicians	21.7%	29.2%	34.5%
Physicians who provide MAT for SUD	24.1%	22.6%	13.8%
Physicians assistants	20.7%	26.7%	38.7%
Nurse practitioners	36.7%	38.7%	58.1%
Registered Nurses	53.3%	51.6%	72.4%
Medical Assistants	50.0%	71.0%	93.5%
Dentists	3.3%	3.2%	17.2%
Dental hygienists	3.3%	3.3%	13.8%
Dental assistants	13.3%	20.0%	24.1%
Pharmacists	10.0%	12.9%	17.2%
Psychiatrists	43.3%	45.2%	41.4%
Psychologists	25.0%	27.6%	27.6%
Other behavioral health professionals	37.9%	56.7%	63.3%
Other kinds of clinicians	11.1%	22.2%	26.7%

Exhibit 3.2 shows the percentage of practices that expressed concerns about the effect of workforce shortages on specific focus populations for MTP. More than half of surveyed organizations expressed concern that staff shortages would result in suboptimal outcomes for individuals with a chronic medical condition, people with SMI, co-occurring behavioral and medical conditions, and SUD, all of which represent focus populations for MTP. Notably, except for individuals with a chronic medical condition, the concerns did not worsen between 2018 and 2021, although none demonstrated a statistically significant improvement.

Exhibit 3.2. Percent of Primary Care Practices Expressing Concerns that Workforce Shortages Would Result in Suboptimal Outcomes for Specific Populations

	2016	2018	2021
Children	46.7%	50.0%	48.4%
Pregnant women	27.6%	37.9%	33.3%
Disabled adults	55.2%	55.2%	41.9%
Individuals with severe mental illness	86.2%	83.3%	71.0%
Individuals with a chronic medical condition	41.4%	40.0%	51.6%
Individuals with comorbid behavioral and medical conditions	72.4%	73.3%	67.7%
Individuals with SUD	72.4%	66.7%	61.3%

Exhibit 3.3 shows the percentage of practices that had adopted a variety of organizational changes to improve care. By 2021, over 90 percent of practices had a process in place to screen patients for behavioral health conditions, and more than 80 percent had co-located behavioral health providers, offered continuing education programs for clinicians, and had systems for identifying patients who needed care coordination.

Exhibit 3.3. Adoption of Practices and Delivery-System Changes Designed to Improve Patient Care

	2016	2018	2021
A process to routinely screen patients for behavioral health conditions or SUD	65.5%	90.0%	93.5%
PCPs and behavioral health care providers who work at the same location and use the same scheduling system	42.9%	58.6%	80.6%
Shared care plans for primary care and behavioral health	37.9%	60.0%	74.2%
Regularly scheduled care team meetings	35.7%	53.3%	64.5%
Continuing education programs to help clinicians maintain their knowledge or skills	82.1%	86.7%	83.9%
A system for identifying patients who need care coordination	50.0%	89.7%*	80.6%
Designated care coordinators to help ensure patients' medical, health-related, or SDOH needs were met	37.9%	63.3%	64.5%
Community health workers to help ensure patients' health-related or SDOH needs outside the practice were met	17.2%	33.3%	35.5%
One or more on site staff person(s) to integrate physical and behavioral health care	31.0%	46.7%	67.7%
Use of Washington's Prescription Drug Monitoring Program by at least half of clinicians	65.5%	86.7%	80.6%
One or more physicians, advanced registered nurse practitioners or physician assistants on site licensed to prescribe buprenorphine for SUD	27.6%	46.7%	51.6%
Active coordination with a local mental health agency	55.2%	73.3%	77.4%
A process in place to routinely screen patients for SDOH needs (e.g., food insecurity, housing insecurity, transportation challenges)	27.6%	53.3%	64.5%

Efforts by ACHs to Build Workforce Capacity

Washington Apple Health leaders believed that MTP would create new workforce demands stemming from health improvement project implementation, which aimed to change clinical and community-based delivery systems and improve access to services. Therefore, these leaders identified workforce capacity building as critical to achieving MTP's goals. However, ACHs noted that the state did not provide clear direction regarding their roles and responsibilities for addressing workforce gaps and needs. The lack of direction delayed ACH's ability to define strategies to improve workforce capacity.

ACHs were not well-positioned to address statewide workforce capacity issues. Over the course of the transformation period, ACHs reiterated that workforce capacity was not an area where they perceived they could make notable impacts. ACH participants described barriers to expanding specific roles and addressing shortages, including payment models and reimbursement policies and restrictive state regulations on licensure and reciprocity agreements. However, none of these issues were within ACH's area of influence. Payment models and reimbursement rates were in the purview of MCOs, but MCOs and state leadership had not yet addressed workforce capacity issues through revised reimbursement policies, rates, and payment models.

In addition, key informants at ACHs indicated they did not have clear direction about their roles and responsibilities for addressing workforce gaps and needs. They struggled to define effective strategies to enhance workforce

capacity within their scope of influence. Throughout the transformation period, there was a consensus among ACHs that workforce capacity challenges were issued that needed resolution at the state or federal level, suggesting that regional organizations like ACHs were not well suited to address these workforce capacity barriers.

ACHs worked with partnering organizations and educational institutions to provide training to support MTP goals. ACHs financially supported internships, apprenticeships, training programs, and training on models used in health improvement projects. Provider organizations that otherwise could not afford to train their staff received funds from ACHs to support those experiences.

Other ACH training efforts included establishing coursework with a local college to support a medical interpreter program (North Sound ACH), funding clinical practice internships at behavioral health agencies that could not afford to pay for interns before they were licensed to bill (Greater Columbia ACH), and organizing a network that trained recovery coaches to support people returning to the community after incarceration.

ACHs were aware of workforce shortages across primary care and behavioral health settings. Shortages were perceived to be especially severe for behavioral health providers. The COVID-19 PHE placed new stress on staff, resulting in higher levels of burnout and turnover. Rural area provider organizations struggled to attract and retain staff.

ACHs trained and supported new workforce members, focusing on community-based roles. Many of the interventions ACHs promoted involved community-based workers, including community health workers (CHWs), peer support specialists, recovery coaches, dental health aide therapists (DHATs), and care navigators. These personnel could be trained quickly within the transformation period (e.g., DHAT training took 24 months; peer support specialist training was approximately 40 hours). These workforce members took on roles that involved care coordination (e.g., CHWs), navigating the health care continuum (e.g., care navigators), engaging and helping those with substance use disorder (e.g., peer support specialists and recovery coaches), improving access to needed health services (e.g., DHATs, CHWs), and hard-to-reach populations.

Partnering provider organizations reported bringing on CHWs to support several project areas (Projects 2B, 2C, 2D, and 3A), helping with care coordination, connecting with hard-to-reach populations, getting community-based supports, and helping patients access more appropriate levels of care.

ACHs provided financing to train the existing workforce in new skills. Acquiring new skills allowed workers to provide more services, better operate in a transformed health care system, and improve the quality of services. ACHs also offered training to community-based staff on topics like COVID-19 response, care coordination, and care transition follow-up processes. Partner organizations reported participating in trainings on long-acting reversible contraceptive (LARC) placement, the University of Washington AIMS program for integrated behavioral health care, and health and racial equity. ACHs also funded and organized training to support its partners in implementing their health improvement projects using strategies from the toolkit.

Conclusion

Workforce shortages continue to be a foundational component to consider towards achieving the goals of MTP. Surveys and interviews suggest substantial workforce shortages across various care settings and provider types — particularly in behavioral health. To address these shortages, ACHs demonstrated adaptability and commitment to enhancing workforce capacity within their scope. Through collaborations with local providers and educational institutions, ACHs supported various training programs and created community-based roles. Given the innovative efforts tested by ACHs, the state may have opportunities to learn from ACHs and work to disseminate novel approaches that reduce the pressures associated with workforce shortages. Continued support and clear guidance from state policymakers are likely necessary to help ease workforce pressures.

Assessing MTP's Impact on Health Information Technology Use

KEY FINDINGS

- ***Gaps persist in ability to use advanced analytics for quality and outcome measurement.*** *Nevertheless, primary care practices have largely adopted EHR systems and have integrated them into their practices to conduct basic operational tasks.*
- *While most practices can exchange information with hospitals and ambulatory care providers,* ***notable barriers limit data sharing with behavioral health and social service organizations.***
- ***The diversity of HIT platforms in use, the regional focus of ACHs, and the mixed engagement of community-based partners in existing platforms continue to impede the expansion of cross-organization HIT capabilities.***
- ***Between 2016 and 2018, there was a surge in HIT investments,*** *particularly in training, patient notification systems, and telemedicine. With the exception of telemedicine, HIT investments appeared to taper in 2021.*
- ***ACHs were pivotal in filling HIT gaps,*** *particularly in their support of behavioral health organizations adopting or updating their HIT. They also collaborated with MCOs and incentivized the adoption of tools like PointClickCare to identify patients at risk of emergency department visits or rehospitalizations.*

Background

Improving the adoption and capabilities of Health Information Technology (HIT) and Health Information Exchanges (HIE) is fundamental to enhancing health systems performance, enabling seamless sharing of patient data across various healthcare settings. With MTP, ACHs sought to foster greater interoperability and data exchange, recognizing that these systems could help foster information sharing and retrieval, which is crucial to coordinating care. Greater adoption of and capabilities of HIT were potentially valuable across all Health Improvement Projects, allowing for the aggregation and analysis of large datasets, facilitating patient registries and targeted interventions, and supporting referrals and follow-up.

HEALTH INFORMATION TECHNOLOGY TERMS

Electronic Health Record (EHR): An electronic version of a patient's medical chart that makes information available instantly and securely to authorized users. EHRs may also contain a patient's medical history, diagnoses, medications, treatment plans, and demographic information; allow access to evidence-based tools that providers can use to make patient care decisions; and help streamline care delivery workflows and processes (Office of the National Coordinator for Health Information Technology 2019b).

Health information exchange (HIE): A system that allows health care providers to access and securely share patient medical information electronically, no matter where patients receive care. HIE may enable different providers to send and receive a patient's secure information electronically in order to coordinate care, or to request information on a patient from another provider in order to help provide unplanned care (Office of the National Coordinator for Health Information Technology 2019a).

Community information exchange (CIE): A system that that allows health care providers and social service providers to share information about a patient's health care and health-related social needs, with the goal of addressing all factors that contribute to a patient's health.

Clinical Data Repository (CDR): A centralized database that aggregates patient information from practices, hospitals, labs, and other health care organizations. A CDR enables participating health care providers to access up-to-date information on patients from a variety of sources to help provide care. Providers push information to the CDR and query information from the CDR, through an HIE (Washington State Health Care Authority n.d.).

OneHealthPort: The company contracted by the Washington State Health Care Authority to host a statewide HIE and CDR. OneHealthPort is used broadly to refer to the State's HIE and its coordinating tools.

Emergency Department Information Exchange (EDie): A web-based tool that connects emergency departments (EDs) track patients who visit multiple EDs (Bolton et al. 2017).

Collective Ambulatory (formerly PreManage): A tool for sharing medical history and care plans of patients with complex health care needs.

Evaluation Approach

Our evaluation used a mixed methods approach, combining quantitative survey data and qualitative interview data (described in the respective analysis sections below) to assess the impact of MTP on provider adoption and use of HIT. Our evaluation was informed by the following research questions:

- To what extent did MTP affect the use of HIT?
- To what extent can practices use HIT to promote care coordination, targeted services, quality improvement, and other MTP goals?
- What areas of HIT received the largest investments?
- What are the largest barriers to using HIT for care coordination, care transition, and quality improvement?

Quantitative Methods

We surveyed primary care practices in two waves. The initial wave, conducted in 2019, asked practices about using HIT in 2016 and 2018. A second wave in 2022 asked practices the same questions about HIT use in 2021. Representatives in clinic manager or similar administrative roles were asked to complete the survey on behalf of the practice. Only primary care practices that responded to the first survey were included in the second survey. Out of an original sample of 275, 89 responded to the first survey, and 31 (of the 89) to the second. Despite multiple contacts with practices, response rates were low, a phenomenon that may be at least partly attributed to the COVID-19 PHE.

To understand progress with HIT, we asked primary care practices if clinicians at the practice used their EHR systems to accomplish any of 21 types of tasks. We also queried on their ability to use HIT to exchange 6 types of bi-directional information and whether they made financial investments related to HIT.

Qualitative Methods

We conducted 29 interviews with leaders (e.g., practice managers or chief financial officers) employed at 24 medical provider organizations (e.g., primary care practices, Federally Qualified Health Centers [FQHCs], or hospital systems). We conducted 1-2 interviews per organization. In addition, we conducted 20 interviews with leaders at 20 behavioral health agencies (e.g., practice managers or executive directors) to learn about their experiences. Additional details are provided in Appendix C.

Results

Progress in HIT

To assess changes in HIT, we asked primary care practices whether they used EHR systems to accomplish 17 different tasks (Exhibit 4.1). The majority of practices could use their systems to perform most of these tasks, and in some cases (viewing diagnoses, viewing summaries of patients' visits to the ED, ordering lab tests), 100% of respondents reported being able to use their systems for these tasks. However, a third or more respondents reported that they could not use their EHRs for certain tasks, including viewing outcome measures based on clinical and claims data, generating tailored clinical quality care reports, and determining whether investments made in HIT improved patient outcomes. Changes across these measures improved consistently between 2016 and 2018, although some respondents reported less functionality in 2021. The only statistically significant change was in the percentage of practices that said they could determine whether investments made in HIT improved patient outcomes, which dropped from 83.9% in 2018 to 58.1% in 2021, possibly a reflection of the uncertainty of patient well-being and the shocks to the health care system occurring during the COVID-19 PHE.

Exhibit 4.1. Practices Reporting They Could Use Their EHR for Selected Tasks

	2016	2018	2021
View medical diagnoses and services provided	93.3%	96.8%	100.0%
View mental health diagnoses and services provided	83.3%	90.3%	93.5%
View diagnoses and treatment for SUD	70.0%	80.6%	80.6%
Order lab tests and view results	96.7%	100.0%	100.0%
View summaries of patients' visits to the ED	80.0%	100.0%	100.0%
View information about patients' SDOH	40.0%	61.3%	71.0%
View outcome measures based on clinical data AND claims data	36.7%	50.0%	48.4%
View patients' health risk scores (risk stratification)	36.7%	58.1%	67.7%
Generate lists of patients with particular health conditions	70.0%	90.3%	83.9%
View patients assigned to them (patient attribution or empanelment)	60.0%	74.2%	83.9%
Send prescriptions to a pharmacy	93.3%	100.0%	100.0%
Confirm that prescriptions were filled	40.0%	64.5%	80.6%
View active medications prescribed by clinicians outside your practice	60.0%	74.2%	71.0%
Generate clinical quality care reports tailored for your needs	50.0%	74.2%	64.5%
Generate clinical care reports at least quarterly	53.3%	77.4%	83.9%
Use clinical quality of care reports to improve care provided at least quarterly	60.0%	86.7%	74.2%
Determine that investments made in HIT improved patient outcomes	56.7%	83.9%*	58.1%

Exhibit 4.2. Primary Care Practices Reporting the Ability to Exchange Information Across Organizations

	2016	2018	2021
Exchange patient health information with ambulatory care providers outside your organization/health system	60.0%	87.1%	77.4%
Exchange patient health information with a hospital outside your organization/health system	50.0%	67.7%	71.0%
Exchange patient information with behavioral health providers outside your organization/health system	30.0%	46.7%	35.5%
Create and share care plans with organizations outside your practice/health system	33.3%	48.4%	45.2%
Exchange patient information with long-term care providers outside your organization/health system	13.3%	25.8%	25.8%
Exchange information with social-service organizations or community-based organizations	13.3%	25.8%	25.8%

Exhibit 4.2 displays information about progress in HIE and Community Information Exchange (CIE). Most practices could exchange patient health information with ambulatory healthcare providers (77.4% in 2021) and hospitals (71.0% in 2021) outside their health systems, but exchange functionality was limited in other settings. For example, only 35.5% of practices could exchange information with behavioral health providers outside their system in 2021, and only 45.2% could share care plans with organizations outside their system in 2021. The connectivity with long-term care providers and social service organizations was weaker, with 25.8% of practices indicating they could exchange information with these groups in 2021.

HIT Investment

Exhibit 4.3 displays practice responses when asked if they made investments related to HIT. Between 2016 and 2018, there were a variety of statistically significant increases in investments in HIT, with more than 80% of practices providing training to clinicians or staff or implementing improvements to send patients notifications about routine care. Practices also increased their investments to improve their ability to track patients' referrals to other organizations (61.3% in 2018) and implement improvements to connect to an HIE (58.1% in 2018). In general, these investments tailed off in 2021. The one exception was the approach to telemedicine, with 71% of practices investing in telemedicine to obtain care management advice for complex patients in 2021.

Exhibit 4.3. Investments in Health Information Technology Made by Primary Care Practices

	2016	2018	2021
Purchase software to extract EHR data or generate clinical quality of care reports	26.7%	41.4%	25.8%
Hire new or expand existing staff to extract EHR data or generate clinical quality of care reports	46.7%	61.3%	41.9%
Provide training to clinicians to use clinical quality of care reports from EHR to improve care	48.3%	83.3%*	58.1%
Provide training to staff to use clinical quality of care reports from the EHR to improve care	63.3%	87.1%	71.0%
Implement improvements to track patients' visits to other organizations	26.7%	41.9%	45.2%
Implement improvements to track patients' referrals to other organizations	30.0%	61.3%*	58.1%
Implement improvements to send patient notifications about routine care	60.0%	87.1%	58.1%
Implement improvements to connect to a health information exchange	40.0%	58.1%	35.5%
Implement disease registries to manage the quality of patient care at least quarterly	41.4%	61.3%	51.6%
Implement telemedicine to obtain care management advice for complex patients	23.3%	38.7%	71.0%
Other	0.0%	0.0%	23.1%

Factors That Influenced HIT and HIE Adoption

ACHs focused on filling HIT gaps by helping behavioral health provider organizations upgrade or adopt new EHRs that were ONC-certified and facilitated data sharing and analytics tasks (ONC certification refers to the Office of the National Coordinator for Health Information Technology, which establishes EHR standards necessary for documentation and requesting reimbursement from MCOs). Behavioral health and smaller medical provider organizations often had outdated EHR systems with limited capacity to communicate with other HIT tools and fewer financial reserves to support the cost of upgrading their tools. ACHs supported these organizations by funding new technology and providing technical assistance in transitioning to new tools. ACHs placed less emphasis on FQHCs and primary care provider organizations connected to hospital systems, as they tended to have more robust HIT systems, employed information technology experts, and had access to resources for upgrades.

ACHs collaborated with MCOs and incentivized the adoption of tools like PointClickCare. PointClickCare was used to identify patients at risk of ED visits or rehospitalization and to coordinate care among clinical and community-based providers. MCOs subsidized the tool, and ACHs purchased or provided training, technical assistance, and practice coaching to partners on enhancing their use of the technology and learning to incorporate it into clinical workflows. To reduce duplication, ACHs, MCOs, and PointClickCare also participated in workgroups to standardize and delineate roles and processes among provider organizations that shared patients.

ACHs pursued regional CIEs and eventually advocated for a uniform, statewide strategy for information exchange. Due to the costs of sustaining the infrastructure after MTP ended, data privacy issues, and concern about investing in multiple inoperable technologies, ACHs advocated for a statewide approach. The ACHs convened to agree on the essential components and principles for a CIE to be used across ACH regions and diverse settings.

Some ACHs began investing in tools to strengthen connections between clinical and community-based partners to support shared care planning and facilitate a closed-loop referral process. For example, ACHs that selected Project 2B – Community-Based Care Coordination – invested in care coordination technology like Care Coordination Systems (CCS), which was adopted specifically for the Pathways Community HUB model. ACHs in these regions encouraged partners to broaden the use of these tools for other health promotion activities. Once in place, they argued that this type of infrastructure could be used to support mutually reinforcing activities applicable to other health improvement projects, including information sharing needed to integrate care, manage chronic disease, coordinate care transitions, and provide support during the COVID-19 PHE.

ACHs directly provided or contracted with another organization to provide technical assistance with HIT tools and strategies. For example, ACHs offered assistance in risk stratifying patients and using disease registries and pre-visit planning tools. These population health management skills aimed to improve health outcomes for patients by identifying, monitoring, and engaging those patients in outreach, screenings, preventive care, and treatment. ACHs also provided assistance in implementing Social Determinants of Health (SDOH) screening tools (e.g., Protocol for Responding to & Assessing Patients' Assets, Risks & Experiences tool) or implementing care management processes to gather information regarding patients' SDOH.

Factors that Impeded the Adoption and Range of HIT Capabilities

The diversity of HIT platforms used across regions and between various types of partnering providers created challenges for regional coordination or implementation of closed-loop referral networks. ACHs called for the HCA to coordinate a statewide approach to HIE, noting they were not positioned to financially underwrite the considerable changes needed to promote HIE adoption in their regions. Furthermore, their regional focus did not position them to ensure statewide operability and compatibility. ACHs perceived the state as uniquely positioned to lead these efforts.

Investments in OneHealthPort, the state's HIE platform, did not engage community-based partners. ACHs and partnering providers advocated for a CIE that would allow coordination with non-traditional partners such as jails. They encouraged adopting a CIE over an HIE, noting that there were many organizations that engaged with Apple Health enrollees and played a role in their health and wellness but lacked EHRs or the ability to submit to the Clinical Data Repository.

Conclusion

Between 2016 and 2021, EHR uptake and adoption increased, with survey respondents universally reporting their ability to conduct basic functions, such as viewing patient diagnoses and ordering lab tests. However, there were greater limitations in the HIE and CIE domains, with most respondents still unable to exchange information

with behavioral health and social service organizations. ACHs tried to bridge these gaps, especially in supporting behavioral health providers and advocating for a cohesive, statewide information exchange strategy.

In 2022, the Washington State Legislature appropriated funding to HCA to determine the costs and impacts of implementing a statewide CIE. Though implementation did not occur during the MTP 1.0 demonstration period, Washington's MTP 2.0 waiver renewal includes the creation of a Community Hubs program. Using CIE technology and resource referral processes, these hubs will operate as electronic centers connecting Apple Health enrollees to health-related social needs.

Continued efforts can build on progress, address barriers to HIE and CIE adoption, and support investments in technologies and approaches that foster a connected, efficient, patient-centered healthcare system.

Overview of ACH Health Improvement Projects

This chapter offers a high-level summary of the eight HIPs implemented by ACHs as part of MTP Initiative 1. Each HIP prompts participating ACHs to consider and implement transformation strategies; we summarize the goals and strategies for each HIP. Detailed summative quantitative evaluation results and implementation findings specific to each of the eight HIPs can be found in Chapters 6-13. In Chapter 14, we present: 1) cross-cutting themes and patterns that multiple ACHs experienced when implementing HIPs, and 2) notable changes in outcomes from the Baseline Report and Interim Report through the Summative Report.

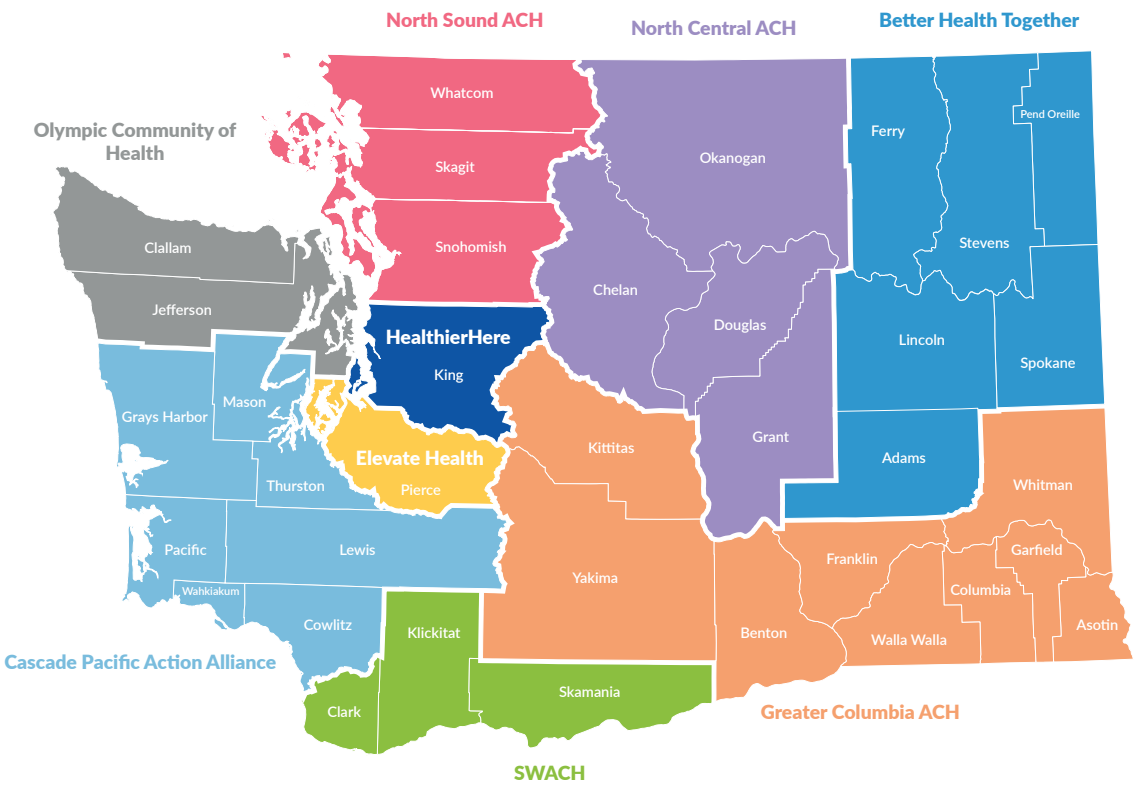
MTP Approach to Change

In 2015, Washington created nine Accountable Communities of Health (ACHs) to serve as coordinating bodies across health care delivery systems and the local communities those systems serve in nine non-overlapping geographic regions (Exhibit 5.1). Through this work, ACHs aimed to promote health equity and coordinate to address health-related social needs (HRSN). Initiative 1 tasked ACHs to pursue regional projects that advanced MTP statewide goals in the following three areas:

- **Domain 1: Health Systems and Community Capacity Building,** including promoting value-based payments, supporting the development of the health care workforce, and expanding the HIT and health information exchange (HIE) infrastructure.
- **Domain 2: Care Delivery Redesign,** including supporting bidirectional integration of behavioral and physical health care; promoting community-based care coordination; improving transitions from intensive or institutional care settings; and implementing ED diversion strategies to connect medically underserved groups with primary care and social services.
- **Domain 3: Prevention and Health Promotion,** including supporting interventions to address opioid misuse; ensuring access to reproductive care; increasing access to oral health services, and enhancing health system approaches to chronic disease management.

ACH were required to implement at least two HIPs in Domain 2 and at least two HIPs in Domain 3.

Exhibit 5.1. Washington State's Accountable Communities of Health



The MTP Project Toolkit and Health Improvement Projects

The MTP Project Toolkit (Project Toolkit) was created by the state to guide ACHs in the design and implementation of Initiative 1 activities. The Project Toolkit outlines guidance for project objectives, target populations, evidence-based approaches, implementation guidelines, and project milestones. The Project Toolkit also outlines deliverables and pay-for-performance (P4P) metrics.

The Project Toolkit names **eight health improvement projects**, two of which were mandatory (Project 2A and Project 3A) and six of which were voluntary:

- **Project 2A:** Bi-Directional Integration of Physical and Behavioral Health Through Care Transformation [required of all ACHs]
- **Project 2B:** Community-Based Care Coordination
- **Project 2C:** Transitional Care
- **Project 2D:** Diversion Interventions
- **Project 3A:** Addressing the Opioid Use Public Health Crisis [required of all ACHs]
- **Project 3B:** Reproductive and Maternal/Child Health
- **Project 3C:** Access to Oral Health Services
- **Project 3D:** Chronic Disease Prevention and Control

The Project Toolkit specified three stages for all projects. Each project followed the same timeline, with specific milestones for each project at each stage:

- **2017 and 2018 were planning years,** typically involving completion of an assessment, selection of specific evidence-based approaches from the Toolkit, identification of partner organizations, and completion of an implementation plan.
- **2019 was an implementation year,** involving the development of new infrastructure, policies and procedures, the engagement and training of partners, and development of plans for continuous quality improvement.
- **2020 and 2021 were designed to be "scale and sustain" years,** involving expansion of piloted models, provision of ongoing support and quality improvement activities with partners, and planning for financial stability.
- **2022 was designed to be a sustainability and transition year** for many projects, involving training, technical assistance, and learning cohorts to support transition and continued implementation.

ACHs were required to meet specific reporting and performance milestones at each phase to earn incentive payments in each project area. The level of incentive payments varied across project areas.[10] The COVID-19 PHE disrupted much of the planning, scaling, and sustaining designated for 2020-2022.

Selection of MTP Health Improvement Projects

Guided by evidence-informed approaches outlined in the Project Toolkit, ACHs were required to implement at least 2 HIPs from Domain 2 (Care Delivery and Redesign) and two HIPs from Domain 3 (Prevention and Health Promotion). At the outset of MTP, ACHs completed regional health needs inventories to guide their project selection processes and selected between four and eight projects. Exhibit 5.2 presents the projects selected by each ACH.

In late 2017, HCA announced that funding available for MTP Initiative 1 (including ACH HIPs) would be lower in that year than previously stated due to unforeseen budget shortfalls. Some ACHs decided to reduce their selected projects and looked for ways that community interests and priorities could still be addressed with fewer projects.

Exhibit 5.2. Projects Selected by ACHs

HIP	ACH								
	BHT	CPAA	ELEVATE HEALTH	GCACH	HEALTHIERHERE	NCACH	NSACH	OCH	SWACH
Project 2A: Bi-Directional Integration of Physical and Behavioral Health Care (Required)	X	X	X	X	X	X	X	X	X
Project 2B: Community Based Care Coordination	X	X	X			X	X		X
Project 2C: Transitional Care		X		X	X	X	X		
Project 2D: Diversion Interventions						X	X	X	
Project 3A: Addressing the Opioid Use Public Health Crisis (Required)	X	X	X	X	X	X	X	X	X
Project 3B: Reproductive and Maternal or Child Health		X					X	X	
Project 3C: Access to Oral Health Services							X	X	
Project 3D: Chronic Disease Management and Control	X	X	X	X	X	X	X	X	X

NCACH selected and began implementation of Project 2B; however, in 2019, HCA stopped endorsing hubs. As a result, NCACH closed their Pathways Community HUB work associated with Project 2B in June 2019.

ACH Identification of Target Populations

ACHs varied in how narrowly or broadly they defined target populations for each HIP. Each ACH identified a set of target populations based on regional health needs inventories, community needs assessments, and stakeholder engagement activities. Some ACHs allowed partnering organizations to define narrower target populations as part of their contract negotiations.

Partner Outreach and Contracting

ACHs executed contracts with a wide range of organizations to carry out HIP implementation. Partnering organizations varied in type and composition, including health care providers, community-based providers of social, educational, and employment services, local government entities, and Tribal nations.

ACHs employed a Request for Proposal (RFP) process to identify and select contracted partners. Community partners participating in an ACHs' project prioritization and planning efforts were invited to apply during the RFP stage. Other partner outreach efforts included ACHs hosting information sessions for interested partners and attending community stakeholder coalitions and meetings. ACHs that covered larger geographic regions also leveraged more localized county groups to engage partners.

ACH contract terms varied in length. Some ACHs prioritized contracting with clinical partners because many incentive measures were perceived to be more easily influenced through clinical intervention.

Exhibit 5.3. Examples of ACH Collaborations

COLLABORATION TYPE	EXAMPLE
Health Care Providers	• Behavioral health care provider • Hospital • Primary care provider • Residential substance use disorder treatment provider
Community-based social, educational, and employment services providers	• 211 network (referral to social services) • The Arc • Assisted living facility • Catholic Charities • Church • Homelessness services provider • YWCA
Local government entities	• Area Agency on Aging • City fire department • City housing authority • County human services department • County sheriff • Educational service district • Emergency medical services
Tribal Nations	• Confederated Tribes of the Colville Reservation • Cowlitz Indian Tribe • Port Gamble Sklallam Tribe • Quinault Indian Nation • Tulalip Tribes of Washington

Planning and Launching Interventions

Contracted partners were required to complete a change plan (a reporting tool that described how projects would be implemented and monitored). These plans included activities, milestones, and outcomes associated with the project. ACHs conducted regular site visits to monitor progress and support partner needs.

The uniformity of requirements across projects varied among ACHs. ACHs typically did not approach partners on a project-by-project basis. While the Project Toolkit presented eight distinct projects, ACHs reported that community partners did not conceptualize care and service delivery this way. For example, a community partner could implement a shared care plan that supported Project 2A (Bi-directional Integration of Physical and Behavioral Health Care) and supported projects related to care coordination, transitional care diversion interventions, and chronic disease prevention and control.

ACHs also varied in the level of direction they gave partners regarding the design of interventions in each project area. While some ACHs prioritized a specific intervention they sought to spread across their region, other ACHs gave partners the flexibility to develop their own interventions or select from a list of options. Overall, variation in HIP strategies and target populations reflect ACHs' recognition that there was no suitable one-size-fits-all strategy for all regions, given the differences in partners' size or scope and the community's needs.

ACH Roles

Interviews with ACH employees and partnered provider organizations identified the following roles and efforts that ACHs engaged in to support organizations in their respective regions.

- **Convener** – ACHs brought together cross-sector organizations that had not previously collaborated. These connections fostered relationships between provider organizations that did not exist prior. Convening and connections brought forth by the ACHs also facilitated skill building and peer-learning between organizations.
- **Technical assistance provider** – ACHs provided direct technical assistance or funded technical assistance through vendors with specialized expertise to meet the varying needs of their partners. Technical assistance topics included value-based contracting or behavioral health and primary care integration.
- **Advocate** – ACHs advocated for health and racial equity by providing training and education to partnering organizations. Some ACHs required its partners to participate in activities to promote health and racial equity in their organizations. ACHs also promoted policy changes to revise licensing requirements, increase reimbursement rates, and reimburse for services provided by community health workers and peer support specialists.
- **Funder** – ACHs provided flexible funding to provider organizations that was used to achieve their identified goals. This included funding for project-specific activities and community efforts that aligned with the ACH's mission.
- **Community response coordinator** – ACHs had established networks, relationships, and infrastructure for sharing information with organizations in their communities. This helped them identify gaps, respond to community needs, and organize emergency response to natural disasters and the COVID-19 pandemic.

All ACHs were well positioned to convene and connect cross-sector organizations in their regions and organize technical assistance to partnering organizations to support transformation efforts. ACHs identified community needs and responded to them with supporting resources and flexible funding to financially support change efforts and project implementation. However, the background, skills, and expertise of each ACH varied. ACHs emerged from different organization types (e.g., public health, non-profits, community-based organizations), which influenced their priority areas and skillsets (e.g., practice facilitation, advocacy, community-based social justice).

While ACHs supported provider organizations in their regions in numerous ways, they could not directly make changes impacting MTP clinical outcome measures. ACHs could only indirectly influence the work that affected these metrics, as their partners were the organizations that provided direct care and services to Medicaid beneficiaries.

ACHs had no leverage or control over services included in provider organization contracts with MCOs. They were unable to participate in those proprietary conversations, and they lacked authority for determining which services were reimbursable (e.g., Pathways Community HUB and health improvement project related changes) or the types of payment methodologies used (e.g., value-based payments). ACHs were also regionally focused, which limited their reach and influence on statewide efforts including statewide HIT/E infrastructure and state regulations that influenced workforce capacity. These areas were under the authorities of MCOs and HCA.

COVID-19 Disruptions

The COVID-19 PHE caused widespread disruptions to the state's health care delivery system, which are still felt today. These disruptions occurred during a key point in the MTP demonstration, as 2020 marked the year when 50% of ACHs' HIP incentive payments were slated to be determined by their achievement of project-related performance measures.

Due to these disruptions, HCA made changes to ACHs' incentive payments in July 2020, offering greater flexibility in meeting performance targets during the pandemic. The state received approval from CMS to calculate ACHs' performance in three ways, using whichever approach resulted in the highest achievement for the ACH in 2020 relative to the baseline year of 2018.

Qualitative Evaluation of Health Improvement Projects

Sample. We examined HIPs from the viewpoint of ACH leaders, MCOs, and ACH partner organizations, such as leaders at medical partner organizations (e.g., primary care practices, Federally Qualified Health Centers [FQHCs], hospital systems) and leaders at behavioral health organizations.

Data Collection. We completed semi-structured interviews between May 2019 and June 2023. Interviews were conducted iteratively, allowing our team to use what we learned from early interviews to inform questions we explored with later participants.

Analysis. We used a deductive approach, as we wanted to identify, categorize, and describe the implementation support strategies ACHs used for each respective HIP and, to the extent possible, the specific changes ACH partner organizations made. To do this, we developed a code book that we used to tag interview segments. The team analyzed the data as a group until these codes were consistently applied to the data. The remaining data were analyzed by individual analysts, with meetings used to discuss questions that emerged during analysis, and the output for these codes was analyzed a second time. A state-level project summary was created to describe the types of implementation support ACHs provided, identify the extent to which this support was connected to partner organization change, and document ACH and provider organization leaders' experiences with each HIP.

Exhibit 5.4. Health Improvement Projects Evaluation Periods

Evaluation Period Name	Evaluation Period Range
Pre-intervention, "baseline"	January 2017 – December 2018
Peak COVID-19 PHE years, "peak PHE years"	January 2020 – December 2021
2022 (final year of evaluation data)	January 2022 – December 2022

Once the qualitative and quantitative findings were summarized, the full MTP analytical team met to discuss and connect these two sources of data. The team assessed the extent to which ACH efforts were aligned with the project's corresponding target populations and outcome measures.

Quantitative Evaluation of the Health Improvement Projects

Analytic Approaches. We present summative evaluation results in chapters 6-13 for each of the eight HIPs. To evaluate the impact of each HIP on health care utilization and outcomes, we examined relevant health measures in ACH regions that participated in the HIP. We employed two analytic approaches:

- **Pre-post.** Three projects (2A, 3A, and 3D) were implemented by all nine ACHs. In the absence of a suitable comparison group, we measured change across three periods: baseline to the peak PHE years, baseline to 2022, and peak PHE years to 2022 (Exhibit 5.4).
- **Difference-in-differences.** Five projects were implemented by some, but not all ACHs. In these cases, we conducted a difference-in-differences analysis to compare outcome changes among individuals residing in ACHs that selected the HIP to outcome changes among individuals residing in non-participating ACHs. This approach was designed to isolate the change that could be attributed to a project from other statewide changes that may have affected project-related performance in both participating and non-participating ACHs. We measured change across three periods: baseline to the peak PHE years, baseline to 2022, and peak PHE years to 2022 (Exhibit 5.4).

The analyses presented are intended to provide a broad assessment of the effect of ACH participation in each HIP. The approaches undertaken by individual ACHs, including target population selection and implementation strategy selection, varied within HIPs. We did not evaluate the merits of specific evidence-based practices or approaches that ACHs may have undertaken. Rather than measuring the success of specific tools or practices ACHs employed, our analyses should be seen as an assessment of the overall effects of population health projects focused on broad themes, including, for example, behavioral health, maternal health, or oral health improvement.

Analysis of Target Populations by Project. To evaluate the impact of HIPs across ACH regions, we first identified two target populations that were intended beneficiaries of the project. When defining target populations, we identified two common populations across each HIP. We analyzed both populations by ACH region across each HIP.

This strategy was based, in part, on the fact that it was not possible to systematically identify all Apple Health enrollees who received interventions or were cared for by participating partners in an ACH region. Our approach was population-based and reflected an attempt to identify, through health care claims data, enrollees who could have benefited from each HIP. In some cases, our target populations were likely to be an imprecise indicator of the groups who were the focus of ACH efforts. However, our use of a common population allowed for an assessment of changes across ACHs and provided an indication of the extent to which ACH participation in a HIP may have impacted population health.

We identified target populations based on a review of the Toolkit for each HIP, input from ACHs, and the claims data available to the study team. In some cases, such as Project 2A (Bi-Directional Integration of Physical and Behavioral Health Care), there was general uniformity in the populations that ACHs targeted, with most focusing on people with behavioral health conditions or a combination of behavioral health conditions and chronic physical health conditions. In other cases, such as Project 2B (Community-Based Care Coordination), there was considerable heterogeneity in target populations across ACHs. Furthermore, some ACHs identified more than one target population within a single HIP, reflecting the overlapping nature of the evidence-based models defined in the Project Toolkit.

We defined two target populations: a "broad" population and a "narrow" population (see Exhibit 5.5). The broad population was typically larger (e.g., any individual with a behavioral health condition for Project 2A or people with selected chronic conditions for Project 3D). In contrast, the narrow population was typically relatively smaller and more focused (e.g., people with behavioral health condition and chronic physical conditions for Project 2A or people with type 2 diabetes for Project 3D). However, this framework applies more loosely to some projects (for example, Project 2C).

Exhibit 5.5 Target Populations for Quantitative Evaluation of Health Improvement Projects

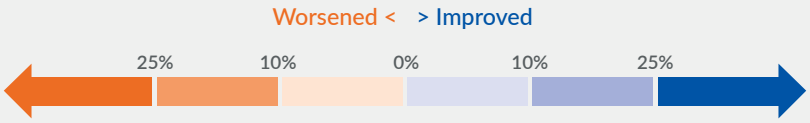
Project	Target Population 1 (Broad)	Target Population 2 (Narrow)	Type of Analysis
Project 2A: Bi-Directional Integration of Physical and Behavioral Health Care	Any behavioral health condition	Behavioral health and physical health comorbidity	Pre-post
Project 2B: Community-Based Care Coordination	Behavioral health and physical health comorbidity	High risk pregnant women	Difference-in-Difference
Project 2C: Transitional Care	Discharged from hospital and any chronic condition	Individuals in transition from intensive settings of care or institutional settings	Difference-in-Difference
Project 2D: Diversion Interventions	>3 ED Visits in Year Prior to Intervention	>5 ED Visits in Year Prior to Intervention	Difference-in-Difference
Project 3A: Addressing the Opioid Use Public Health Crisis	Adults 19-64 (for preventive measures only)	Individuals with OUD	Pre-post
Project 3B: Reproductive and Maternal/Child Health	Women of reproductive age	Pregnant women	Difference-in-Difference
Project 3C: Access to Oral Health Services	All beneficiaries	Pregnant women.	Difference-in-Difference
Project 3D: Chronic Disease Prevention and Control	People w/diabetes, asthma, COPD, cardiovascular conditions	Type 2 Diabetes Only	Pre-post

Outcomes of interest. We selected specific measures for each HIP analysis from the larger list of measures for MTP Initiative 1 (see Chapter 1). Selected outcome measures align with the intended outcomes and goals of each project area.

How to Read this Section: Health Improvement Projects

This section of the report presents findings from our analysis of eight Health Improvement Projects (HIPs), with outcomes organized across eleven domains. We analyze change over time for a set of relevant outcome measures, which vary by project. We employ two different analytic approaches and present data tailored to match each approach.

Color coding is used throughout this section, with shades of blue indicating **improvements** in outcomes, and shades of orange indicating **declines**. The magnitude of change is indicated by shading, as follows:



Pre-post Analysis

For projects where a pre-post analysis was performed, tables display the unadjusted rate for each relevant performance measure during a baseline period (2017 & 2018), at the peak of the COVID-19 PHE (2020 & 2021), and at the end of the demonstration period (2022). These tables also include rates of adjusted change during three periods: baseline to the peak of the PHE, baseline to 2022, and from the peak of the PHE to 2022.

Statistically significant (p-value <0.05) adjusted change is color-coded, with shades of blue indicating improvement and shades of orange indicating that a measure worsened. Boxes where changes were not statistically significant have been left white. Change that is significant at the 0.01 level (p-value <0.01) is also indicated with an asterisk. Metrics based on small populations (with fewer than 1,000 or 100 unique individuals in the denominator) are indicated with a caret symbol (^ or ^^, respectively).

A different set of relevant outcome measures is identified for each Health Improvement Project and listed by domain.

Unadjusted rates for each performance measure during the three examined time periods.

Metrics Grouped by Domain		Baseline	PHE	2022	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D1: Social Determinants of Health							
Homelessness	[3] ↓	17.6%	15.7%	13.7%	-1.5%*	-3.5%*	-2.0%*
Employment (Age 18 to 64)	[0]	46.7%	45.5%	50.1%	-1.9%*	2.4%*	4.3%*
Arrest Rate (Age 18 to 64)	[1] ↓	13.8%	9.3%	8.7%	-4.4%*	-4.9%*	-0.5%*

Bracketed numbers next to each measure indicated the number of projects for which it is pay-for-performance. For some measures, lower values are preferred, and this is indicated with a downward arrow.

*Adjusted change values are color coded to indicate if a measure **worsened** or **improved** during the relevant period. Values that weren't statistically significant have been left white.*

EXAMPLE:

The rate of homelessness dropped during all three examined time periods, with the largest declines observed from the baseline period to 2022, and from the peak of the PHE to 2022. A smaller reduction was also observed from the baseline period to the peak of the PHE. A lower rate is better for this outcome measure, so these cells are shaded in varying shades of blue, depending on the magnitude of the decline.

Difference-in-Differences Analysis

For projects where a difference-in-differences analysis was performed, we compare ACH regions that selected a project (treatment group) to those where a particular project was not selected (comparison group). For projects where this type of analysis was conducted, tables display unadjusted rates for both the treatment and comparison groups during a baseline period (2017 & 2018). To analyze change over time, we measured the change in outcomes among participating ACHs and subtracted the change in outcomes among non-participating ACHs.

Statistically significant (p-value <0.05) adjusted change is color-coded, with shades of blue indicating **improvement** and shades of orange indicating that a measure **worsened**. Boxes where changes were not statistically significant have been left white. Change that is significant at the 0.01 level (p-value <0.01) is also indicated with an asterisk. Metrics based on small populations (denominators <1,000 or <100) are indicated with a caret symbol (^ or ^^, respectively).

A different set of relevant outcome measures is identified for each Health Improvement Project and listed by domain.

Unadjusted rates for the treatment and comparison groups.

Metrics Grouped by Domain		Treated Baseline	Comparison Baseline	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D1: Social Determinants of Health						
Homelessness	[3] ↓	17.7%	18.2%	0.4%*	0.8%*	0.4%*
Employment (Age 18 to 64)	[0]	41.3%	42.9%	1.5%*	1.7%*	0.2%
Arrest Rate (Age 18 to 64)	[1] ↓	11.1%	12.2%	1.0%*	0.4%*	-0.6%*

Bracketed numbers next to each measure indicated the number of projects for which it is pay-for-performance. For some measures, lower values are preferred, and this is indicated with a downward arrow.

*Adjusted change values are color coded to indicate if a measure **worsened** or **improved** during the relevant period. Values that weren't statistically significant have been left white.*

EXAMPLE:

The rate of homelessness increased slightly during all three examined time periods. Although the magnitude of the observed increases were relatively small, they were statistically significant. A lower rate is better for this outcome measure, so these cells are shaded light orange.

Health Improvement Project 2A

This chapter presents results of the summative evaluation of MTP Initiative 1 Health Improvement Project 2A, **"Bi-Directional Integration of Primary Care and Behavioral Health Services."**

We provide background on the topic area, then summarize the changes to care that Project 2A was designed to produce. Through key informant interviews and reviews of program documents collected during the evaluation period, we then describe project implementation through 2022. We also provide results from analyses of health care claims data to inform whether and how health outcomes changed for key populations through this initiative.

Background

Integrated care models aim to enhance coordination across professionals, clinics, and support networks to improve patient and health system outcomes. Models are structured to remove barriers to care, reduce the complexity of navigating health systems, and provide support and alignment for a range of providers.

A prominent strategy for integrating primary and behavioral care, the Collaborative Care Model, has been associated with improvements in the overall quality of care and patient outcomes.[11–19] Similar findings have been demonstrated in "reverse integration" models that integrate physical health care into behavioral or mental health care settings.[20–22] Clinical improvements following the implementation of integrated care models include reductions in depressive symptoms and suicidal ideation, higher rates of remission and recovery, and improvements in overall quality of life.

Integrated care may occur through coordinating, co-locating, or integrating services. This spectrum spans six levels of integration, described below.

- **Minimal collaboration.** Patients are referred to a provider at another site with minimal communication.
- **Basic collaboration from a distance.** Providers at separate sites periodically communicate.
- **Basic collaboration onsite.** Providers share the same facility but maintain separate treatment plans for patients.
- **Close collaboration onsite.** Providers share records and some system integration.
- **Close collaboration approaching an integrated practice.** Providers share space and actively seek systems solutions together.
- **Full integration.** Providers develop and implement treatment plans in a seamless biopsychosocial web.[23]

MTP Project Toolkit Guidance

The objective of Project 2A was to address physical and behavioral health needs in one system through an integrated network of providers. The MTP Project Toolkit identified Apple Health enrollees with co-occurring physical health and behavioral health (mental health or substance use) conditions as the target population for this HIP.

ACHs were responsible for implementing at least one approach to integrating behavioral health into primary care settings and at least one approach for integrating primary care into behavioral health settings.[23] ACHs were also

required to assess the level of integrated care adoption among partners and facilitate health systems capacity-building by aligning value-based payment, workforce development, and population health management strategies with 2A projects. The MTP Project Toolkit outlined three approaches ACHs could use.

- The **Collaborative Care Model** was developed at the University of Washington approximately 20 years ago. This team-based model includes a behavioral health care manager and a psychiatric consultant to support primary care. The model can be either practice-based or telehealth-based and can be used in rural and urban areas. The model has been extended to encompass a wide range of behavioral health conditions, including depression, SUD, bipolar disorder, post-traumatic stress disorder, and others. It includes five principles: patient-centered team care, population-based care, measurement-based treatment to target, evidence-based care, and accountable care.
- ACHs could follow the standards of the **Bree Collaborative**, a group established by Washington's legislature to identify ways to improve health care in the state. This integrated behavioral health care standard includes eight common elements: an integrated care team, patient access to behavioral health as a routine part of care, accessibility and sharing of patient information, patient access to psychiatric services, operational systems and workflows to support population-based care, evidence-based treatments, patient involvement in care, and the use of data for quality improvement.
- A **Milbank Report**[24] provided guidance for ACHs to support work to integrate primary care into behavioral health settings. For example, the report promoted the use of care managers to facilitate collaboration across settings and registries to track and monitor physical health outcomes (which may be overlooked in mental health settings). Integrating primary care into mental health centers should include screening for chronic diseases and conditions and a regular review of patients who are not improving.

Project 2A Implementation Evaluation

Participating ACHs

All ACHs were required to participate in Project 2A.

Target Population Selection

In line with the MTP Project Toolkit, ACHs designated all Apple Health enrollees (children and adults), particularly those with or at-risk for behavioral health conditions (including mental illness or SUD), as the target population. This broad target population provided flexibility but also contributed to variability among the efforts of ACHs' partnering organizations, which may have selected narrower subpopulations for their Project 2A efforts.

Qualitative Methods

Sample. We examined Project 2A from the viewpoint of ACH leaders, MCOs, and ACH partner organizations. We conducted 37 interviews with ACH representatives, three to five interviews per ACH. We interviewed ACH executive directors, program managers, and board members who were purposively selected for their knowledge about contracts with ACH partner organizations and their experience with Project 2A. We interviewed five MCO leaders (one per MCO) who were knowledgeable about ACH efforts, behavioral health integration, and integrated managed care (IMC). We interviewed 34 leaders at medical partner organizations (e.g., primary care practices, Federally Qualified Health Centers [FQHCs], hospital systems) and 20 interviews with leaders at behavioral health agencies to learn about their experiences working with their ACH on Project 2A.

Data Collection. We completed semi-structured interviews between May 2019 and June 2023. Interviews were conducted iteratively which allowed our team to use what we learned from early interviews to inform questions we explored with later participants.

Analysis. We used a deductive approach, as we wanted to identify, categorize, and describe the implementation support strategies ACHs used for Project 2A and, to the extent possible, the specific changes ACH partner organizations made to implement bi-directional integration.

Limitations. Interviews with ACH leaders and program managers covered multiple topics related to Domain 1 and other HIPs. ACHs may have promoted interventions or provided additional implementation support that was not disclosed during interviews.

ACHs Provided Support to Partners for Project 2A

ACHs reported that they had:

Provided partners with facilitation and coaching services to implement their integration projects. ACHs and practices connected with the University of Washington's Advancing Integrated Mental Health Solutions (AIMS) Center to support their integration efforts. Partner organizations varied in the approaches they adopted. Some implemented the Collaborative Care Model, while other partners implemented new processes intended to support integration, such as routinized screenings (e.g., depression screenings in clinical settings) or systematic collection of information about patients' primary care needs in behavioral health settings.

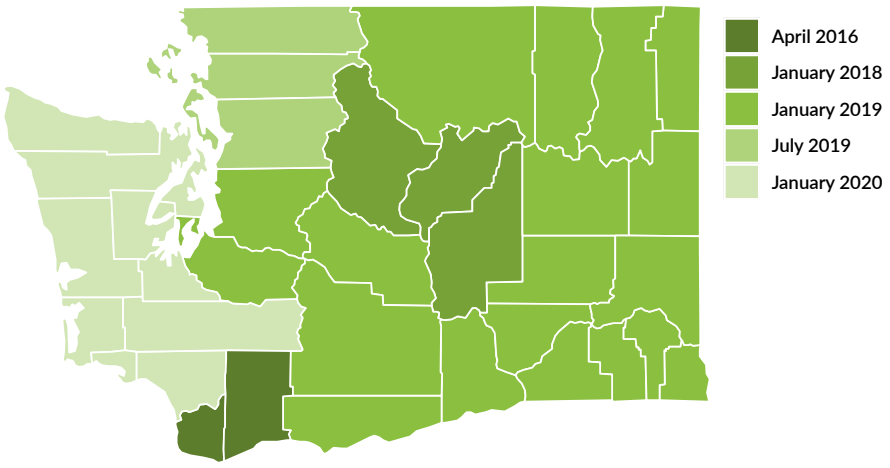
Other partners worked on improving referrals between primary care and behavioral health provider organizations. Referral model approaches were commonly adopted among behavioral health agencies and organizations with limited capacity and experience with practice transformation.

Funded the adoption of new population health management tools. ACHs helped primary care partners adopt new tools that supported integrated care (e.g., a patient caseload tracker used by care managers in collaborative care).

Facilitated networking among partners. ACHs convened its partnering organizations to connect primary care, behavioral health, and social service provider organizations that had not previously worked together. These convenings aimed to facilitate communication and potential partnerships.

Educated partners and facilitated learning opportunities. ACHs supported behavioral health agency partners in learning to effectively use electronic health records (EHRs) for information sharing, reporting, and billing. Behavioral health providers were new to contracting with MCOs following the transition to IMC (Exhibit 6.1), so ACHs sponsored trainings to build provider capacity to negotiate new contracts, rates, and value-based payments. ACHs also held peer learning collaboratives where more experienced organizations shared best practices and lessons learned with others.

Exhibit 6.1. Implementation of Integrated Managed Care, by Region and Date



Other Factors Influencing Project 2A Implementation

Initiatives preceding or coinciding with MTP may have increased provider organization motivation to prioritize Project 2A and affected outcomes. Over 150 primary care provider organizations participated in the Healthier Washington Practice Transformation Hub prior to MTP, which provided training, coaching, technical assistance, and tools for integrating care and improving population health. Primary care provider organizations reported that, before MTP, they had begun or were planning to adopt bi-directional integration, but the ACHs provided additional funding, accountability, and technical support that helped them "jump-start" their efforts.

Beginning in 2020, behavioral health agencies across the state began applying for Substance Abuse and Mental Health Services Administration (SAMHSA) sponsored Certified Community Behavioral Health Clinic (CCBHC) grants, which provided specific standards for certification as well as additional funding, guidance, motivation, and a roadmap for integrating care in behavioral health settings. By 2023, there had been 25 awardees of CCBHC grants.

The COVID-19 PHE reduced capacity for integrated care innovation and change because organizations needed to focus on other time-sensitive changes related to the pandemic. Organizations were overwhelmed by the COVID-19 PHE, and implementing new projects such as bi-directional integration and care coordination was delayed by the influx of new needs brought on by the pandemic.

Bi-directional integrated care required new workers, and some regions experienced hiring challenges. ACHs, especially those serving rural areas, reported that partners struggled to recruit psychiatrists, licensed clinical social workers, and other behavioral health specialists needed for integrated care services. When provider organizations reopened following the PHE, they did not always have the necessary staff to resume full hours and implement new projects.

Behavioral health agencies faced a unique set of challenges to adopting bi-directional integration. These challenges delayed provider organizations from implementing integrated care delivery changes.

- Behavioral health agencies experienced capacity constraints from the IMC transition. Most behavioral health provider organizations previously had a single contract with a regional behavioral health organization. With the transition to IMC, behavioral health agencies had to adopt as many as five unique contracts with each of the MCOs in their region. This arrangement required negotiating and developing multiple new contracts with differing terms, adapting to multiple and unique reporting requirements and processes, and hiring new staff to meet new and greater administrative needs.

For behavioral health agencies, the IMC transition impacted the timeliness of claims payments and service pre-authorizations. Provider organizations were still learning proper coding and billing processes and adapting to new and disparate MCO requirements. They also lacked financial reserves, operated with small profit margins, and experienced financial constraints due to payment delays and rejections.
Primary care provider organizations did not experience the same impacts from IMC, as they already held contracts with MCOs and could bill for behavioral health services to patients with mild to moderate needs.

- **Behavioral health agencies required new or updated electronic health records to accommodate MCO billing and reporting requirements.** Converting to a new EHR was a substantial change for providers that required system implementation, configuration, and resources for staff to learn new documentation requirements and new billing codes and processes.
- **Integrating physical health services into behavioral health settings created space challenges,** including the need for exam rooms and clinical equipment.

MCOs did not establish payment models that covered the costs of integrated care. As a result, adoption was limited to motivated organizations that could implement these care models with other funding sources. Behavioral health agencies reported challenges negotiating contract changes that would allow them to bill for integrated services and cover the costs of integrated services in low-volume settings. Without reimbursement for these services, even highly motivated practices struggled to implement or maintain integrated care.

In addition to the factors outlined here, Chapter 14 describes cross-cutting findings that impacted multiple HIPs.

Quantitative Methods

Since participation in Project 2A was mandatory for all ACHs, there was not a suitable comparison group available. We assessed changes among enrollees of all ACH regions using pre-post analysis. We estimated three types of changes. First, we measured changes in outcomes from the pre-intervention period, which we refer to as "baseline," (January 2017-December 2018) to the peak COVID-19 PHE years, "peak PHE years," (January 2020-December 2021), recognizing that these years might be the most disrupted by the COVID-19 PHE. Second, we measured changes in outcomes from the baseline period to 2022, the final year of our evaluation of the MTP demonstration (January 2022-December 2022), and the year when the most disruptive impacts of the COVID-19 PHE may have dissipated. Finally, we measured changes between the peak PHE years and 2022, which may indicate resilience and recovery as the health system emerged from the PHE. We adjusted for regional differences in Apple Health enrollees' age, gender, urban and rural residence, and a limited set of Chronic Illness and Disability Payment System (CDPS) risk indicators that could otherwise explain observed differences across regions. See Appendix B for methodological details.

Target Populations. Using the populations that ACHs described as intended beneficiaries of Project 2A as a guide, we focused our analysis on two specific populations.

1. People with any behavioral health condition (including mental health or SUD)
2. People with behavioral health conditions and comorbid physical chronic conditions

Our focus on enrollees with any behavioral health condition reflected the approaches taken by a variety of ACHs and the potential for integrating physical and behavioral health care to improve access to both behavioral and physical health services. Our selection of enrollees with comorbid behavioral and physical health conditions as a second target population reflects the potential for this group to benefit from Project 2A, as integration may provide a single site of care for overall health needs.

We defined behavioral health conditions by the presence of a qualifying mental health or substance abuse diagnosis in the measurement year or the previous year. We defined chronic conditions broadly, using physical health markers from the CMS Chronic Conditions Data Warehouse.[25] Chronic conditions included acquired hypothyroidism, acute myocardial infarction, Alzheimer's disease, anemia, asthma, atrial fibrillation, benign prostatic hyperplasia, cataracts, chronic kidney disease, chronic obstructive pulmonary disease, diabetes, glaucoma, heart failure, hip or pelvic fracture, hyperlipidemia, hypertension, ischemic heart disease, osteoporosis, rheumatoid arthritis, stroke, and a variety of cancers (breast, colorectal, prostate, lung, and endometrial).

Summative Evaluation Results

We present the results of our evaluation of Health Improvement Project 2A, "Bi-Directional Integration of Primary Care and Behavioral Health Services" below. These results reflect changes from the baseline period, 2017-2018, through the peak PHE years, 2020-2021, and the final year of the evaluation, 2022.

Outcomes are presented for two target populations: (1) people with any behavioral health condition; and (2) people with comorbid behavioral and physical health conditions. A guide to reading results describes how to interpret tables (see Chapter 5, How to Read this Section: Health Improvement Projects). The Data Appendix displays changes in outcomes for the two target populations across all nine ACHs.

Analysis 1: People with Any Behavioral Health Condition

Most measures for this population exhibited statistically significant changes between baseline and 2022, although changes were not in a uniform direction (Exhibit 6.2). There were improvements in the three social determinants of health (SDOH) measures, with the rates of homelessness (-3.5%), employment (+2.4%), and arrests (-4.9%) improving from baseline to 2022.

Measures in the SUD care domain also improved between baseline and 2022, with the largest changes occurring between baseline and peak PHE years. Over the entire observation period, increases were seen in the rates of initiation of alcohol or other drug treatment (+7.0%), as well as treatment engagement (+2.8%). Over this time, the rates of follow-up after ED visits for alcohol or drug use improved for 7-day (+4.7%) and 30-day (+4.1%) follow-up. Rates of SUD treatment for people with treatment need also improved (+2.9%).

However, most mental health care measures worsened between baseline and 2022. For example, rates of follow-up after ED visit for mental illness decreased between baseline and 2022 for 7-day follow-up (-10.7%) and 30-day follow-up (-8.4%). Similarly, rates of follow-up after hospitalization for mental illness decreased over the same observation period for both 7-day (-17.7%) and 30-day (-12.4%) follow-up. There were significant improvements in the percentage of adults who remained on antidepressant medication for 12 weeks (+12.8%) and for 6 months (+11.6%) between baseline and 2022.

Mixed changes were observed across measures and across observation periods in the domains of access to primary and preventive care, prevention and wellness, care for people with chronic conditions, ED, hospital, and institutional care use, and spending. Between baseline and 2022, the largest improvements occurred for breast cancer screening rates (+14.0%) and controller medication for asthma (+24.1%).

Exhibit 6.2. Change in Outcomes for People with Any Behavioral Health Condition

Metrics Grouped by Domain		Baseline	PHE	2022	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D1: Social Determinants of Health							
Homelessness	[3] ↓	17.6%	15.7%	13.7%	-1.5%*	-3.5%*	-2.0%*
Employment (Age 18 to 64)	[0]	46.7%	45.5%	50.1%	-1.9%*	2.4%*	4.3%*
Arrest Rate (Age 18 to 64)	[1] ↓	13.8%	9.3%	8.7%	-4.4%*	-4.9%*	-0.5%*
D2: Access to Primary and Preventive Care							
Adults' Access to Primary Care	[0]	90.1%	88.7%	86.9%	-0.8%*	-2.6%*	-1.7%*
Well-Care Visits Ages 3 to 21	[2]	47.0%	44.5%	48.3%	-1.1%*	2.9%*	4.0%*
D4: Prevention and Wellness							
Chlamydia Screening for Women	[1]	53.7%	48.0%	47.1%	-4.9%*	-5.4%*	-0.5%
Cervical Cancer Screening	[0]	49.9%	50.3%	49.1%	0.4%*	-0.8%*	-1.2%*
Breast Cancer Screening	[0]	34.6%	47.6%	48.4%	13.3%*	14.0%*	0.6%
Colorectal Cancer Screening	[0]	38.4%	37.3%	37.8%	-1.0%*	-0.3%	0.7%*
D5: Mental Health Care							
Mental Health Treatment Penetration	[3]	71.2%	68.9%	68.6%	-2.1%*	-2.4%*	-0.3%*
30-Day Hospital Readmission for a Psychiatric Condition	[0] ↓	12.7%	15.7%	14.7%	2.3%*	1.9%*	-0.3%
Antidepressant Medication for Adults (12 Weeks)	[1]	52.5%	60.7%	65.3%	8.2%*	12.8%*	4.5%*
Antidepressant Medication for Adults (6 Months)	[1]	36.6%	44.3%	48.0%	8.0%*	11.6%*	3.6%*
Antipsychotic Medication for People with Schizophrenia	[0]	64.3%	63.3%	62.8%	-0.5%	-1.0%	-0.6%
Diabetes Screening for People with Schizophrenia/Bipolar Disorder	[0]	79.2%	76.7%	74.6%	-2.4%*	-4.1%*	-1.7%*
7-Day Follow-Up After ED Visit for Mental Illness	[3]	66.0%	57.3%	55.4%	-8.5%*	-10.7%*	-2.1%*
30-Day Follow-Up After ED Visit for Mental Illness	[3]	76.5%	69.9%	68.3%	-6.7%*	-8.4%*	-1.7%*
7-Day Follow-Up After Hospitalization for Mental Illness	[3]	62.9%	51.4%	45.5%	-11.5%*	-17.7%*	-6.2%*
30-Day Follow-Up After Hospitalization for Mental Illness	[3]	78.3%	69.7%	66.3%	-8.6%*	-12.4%*	-3.9%*
D7: Care for People with Chronic Conditions							
Controller Medication for Asthma	[2]	50.9%	61.5%	74.6%	11.7%*	24.1%*	12.4%*
Eye Exam for People with Diabetes	[2]	39.5%	37.6%	33.3%	0.1%	-3.3%*	-3.4%*
Hemoglobin A1c Testing for People with Diabetes	[2]	81.9%	77.4%	76.4%	-3.0%*	-1.7%*	1.2%*
Kidney Health Evaluation for People with Diabetes	[2]	43.7%	37.0%	35.5%	-4.9%*	-4.6%*	0.2%
D8: Emergency Department, Hospital, and Institutional Care Use							
Ratio of Home and Community-Based Care Use to Nursing Facility Use	[0]	93.4%	95.1%	95.6%	1.3%*	1.9%*	0.6%
Hospital Readmission within 30 Days	[3] ↓	15.3%	16.8%	16.7%	1.2%*	1.3%*	0.1%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	93.9	74.4	76.4	-14.7*	-13.1*	1.7*

Exhibit 6.2. Change in Outcomes for People with Any Behavioral Health Condition (continued)

Metrics Grouped by Domain		Baseline	PHE	2022	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D9: Substance Use Disorder Care							
Substance Use Disorder Treatment for People with Treatment Need	[3]	37.0%	41.8%	40.3%	4.4%*	2.9%*	-1.6%*
Alcohol or Other Drug Treatment: Initiation	[0]	33.4%	40.2%	40.5%	6.8%*	7.0%*	0.2%
Alcohol or Other Drug Treatment: Engagement	[0]	11.5%	15.3%	14.2%	3.9%*	2.8%*	-1.1%*
7-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	24.2%	31.3%	29.1%	6.8%*	4.7%*	-2.1%*
30-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	37.0%	44.2%	41.5%	6.8%*	4.1%*	-2.7%*
D11: Spending							
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$767	$728	$753	$14*	$51*	$38*
Total Spending Per Member, Per Month	[0] ↓	$925	$899	$933	$34*	$81*	$48*
LTSS Spending Per Member, Per Month	[0] ↓	$95	$127	$143	$36*	$54*	$19*
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$268	$215	$213	-$50*	-$51*	-$2
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$657	$684	$720	$84*	$133*	$50*
Substance Use Disorder Spending Per Member, Per Month	[0] ↓	$116	$81	$83	-$33*	-$32*	$1

Analysis 2: People with Comorbid Conditions

Most measures for this population of enrollees with comorbid conditions exhibited statistically significant changes between baseline and 2022. However, as with the population with behavioral health conditions, changes were not in a uniform direction (Exhibit 6.3). There were improvements in the SDOH measures, with rates of homelessness (-3.6%), employment (+3.5%), and arrests (-4.1%) improving from baseline to 2022.

There were also improvements in SUD care measures. For example, between baseline and 2022, increases were seen in the rates of initiation of alcohol or other drug treatment (+6.6%) as well as treatment engagement (+2.0%). Over this time, the rates of follow-up after ED visits for alcohol or drug use improved for 7-day (+4.9%) and 30-day (+4.5%) follow-up. Rates of SUD treatment for people with treatment need also improved (+4.1%).

However, most mental health care measures worsened between baseline and 2022. The largest declines occurred in rates of follow-up after ED visits and hospitalizations for mental illness. Rates of 7-day (-11.2%) and 30-day follow-up (-8.9%) after ED visits for mental illness declined between baseline and 2022, as did rates for 7-day (-17.0%) and 30-day (-11.8%) follow-up after hospitalization for mental illness. Significant improvements were seen between baseline and 2022 in the percentage of adults who remained on antidepressant medication for 12 weeks (+12.7%) and 6 months (+11.2%).

There were mixed changes in other measures, including in the domains of access to primary and preventive care, prevention and wellness, care for people with chronic conditions, ED, hospital, and institutional care use, and spending. Between baseline and 2022, the largest improvements occurred for breast cancer screening rates (+14.4%) and controller medication for asthma (+24.3%).

Exhibit 6.3. Change in Outcomes for People with Comorbid Behavioral and Physical Chronic Conditions

Metrics Grouped by Domain		Baseline	PHE	2022	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D1: Social Determinants of Health							
Homelessness	[3] ↓	17.9%	16.0%	13.6%	-1.4%*	-3.6%*	-2.2%*
Employment (Age 18 to 64)	[0]	41.9%	41.6%	46.5%	-1.1%*	3.5%*	4.6%*
Arrest Rate (Age 18 to 64)	[1] ↓	11.5%	7.8%	7.2%	-3.6%*	-4.1%*	-0.5%*
D2: Access to Primary and Preventive Care							
Adults' Access to Primary Care	[0]	94.7%	93.4%	92.1%	-1.0%*	-2.3%*	-1.3%*
Well-Care Visits Ages 3 to 21	[2]	52.2%	50.2%	54.3%	-0.8%*	3.4%*	4.2%*
D4: Prevention and Wellness							
Chlamydia Screening for Women	[1]	53.6%	47.6%	46.4%	-5.2%*	-6.0%*	-0.7%
Cervical Cancer Screening	[0]	50.8%	52.2%	51.2%	1.2%*	0.0%	-1.2%*
Breast Cancer Screening	[0]	35.8%	49.3%	50.1%	13.7%*	14.4%*	0.6%
Colorectal Cancer Screening	[0]	41.0%	40.0%	40.6%	-1.0%*	-0.3%	0.6%*
D5: Mental Health Care							
Mental Health Treatment Penetration	[3]	69.5%	68.3%	68.2%	-1.1%*	-1.4%*	-0.3%
30-Day Hospital Readmission for a Psychiatric Condition	[0] ↓	13.6%	17.1%	16.3%	2.9%*	2.7%*	-0.2%
Antidepressant Medication for Adults (12 Weeks)	[1]	53.2%	61.1%	66.0%	8.0%*	12.7%*	4.6%*
Antidepressant Medication for Adults (6 Months)	[1]	37.9%	45.3%	49.0%	7.7%*	11.2%*	3.4%*
Antipsychotic Medication for People with Schizophrenia	[0]	64.9%	63.6%	62.9%	-0.8%	-1.3%	-0.5%
Diabetes Screening for People with Schizophrenia/Bipolar Disorder	[0]	84.2%	81.8%	80.1%	-2.3%*	-3.7%*	-1.4%*
7-Day Follow-Up After ED Visit for Mental Illness	[3]	66.8%	57.6%	55.7%	-9.2%*	-11.2%*	-2.0%
30-Day Follow-Up After ED Visit for Mental Illness	[3]	77.7%	70.4%	68.9%	-7.4%*	-8.9%*	-1.5%
7-Day Follow-Up After Hospitalization for Mental Illness	[3]	63.4%	52.1%	46.9%	-11.4%*	-17.0%*	-5.6%*
30-Day Follow-Up After Hospitalization for Mental Illness	[3]	79.3%	70.6%	68.0%	-8.7%*	-11.8%*	-3.1%*
D7: Care for People with Chronic Conditions							
Controller Medication for Asthma	[2]	51.4%	61.8%	75.3%	11.6%*	24.3%*	12.7%*
Eye Exam for People with Diabetes	[2]	39.5%	37.7%	33.5%	0.1%	-3.2%*	-3.4%*
Hemoglobin A1c Testing for People with Diabetes	[2]	82.0%	77.5%	76.6%	-3.0%*	-1.6%*	1.2%*
Kidney Health Evaluation for People with Diabetes	[2]	43.7%	37.1%	35.6%	-4.9%*	-4.7%*	0.2%
D8: Emergency Department, Hospital, and Institutional Care Use							
Ratio of Home and Community-Based Care Use to Nursing Facility Use	[0]	93.4%	95.0%	95.5%	1.2%*	1.8%*	0.6%
Hospital Readmission within 30 Days	[3] ↓	15.7%	17.1%	17.2%	1.2%*	1.4%*	0.2%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	120.7	96.7	99.4	-17.8*	-15.4*	2.5*

Exhibit 6.3. Change in Outcomes for People with Comorbid Behavioral and Physical Chronic Conditions (continued)

Metrics Grouped by Domain		Baseline	PHE	2022	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D9: Substance Use Disorder Care							
Substance Use Disorder Treatment for People with Treatment Need	[3]	34.3%	39.8%	38.3%	5.5%*	4.1%*	-1.5%*
Alcohol or Other Drug Treatment: Initiation	[0]	35.1%	41.4%	41.8%	6.4%*	6.6%*	0.2%
Alcohol or Other Drug Treatment: Engagement	[0]	11.3%	14.3%	13.0%	3.1%*	2.0%*	-1.2%*
7-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	26.4%	33.3%	31.3%	6.8%*	4.9%*	-1.9%*
30-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	40.4%	47.5%	44.9%	6.9%*	4.5%*	-2.5%*
D11: Spending							
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$992	$957	$991	$45*	$98*	$55*
Total Spending Per Member, Per Month	[0] ↓	$1,218	$1,199	$1,248	$74*	$144*	$71*
LTSS Spending Per Member, Per Month	[0] ↓	$137	$182	$203	$49*	$75*	$26*
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$290	$236	$231	-$48*	-$52*	-$5
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$927	$963	$1,017	$122*	$196*	$75*
Substance Use Disorder Spending Per Member, Per Month	[0] ↓	$120	$87	$88	-$29*	-$28*	$1

Conclusion

All nine ACHs implemented HIPs that promoted integrated care. To support 2A projects, ACHs provided partners with technical assistance, trainings, peer-learning opportunities, and funding for new population health management tools. Several other state and national integration initiatives coincided or overlapped with MTP, which may have supported readiness to implement 2A projects. The support and changes offered by the state and supported by the ACHs were focused on system-level implementation as opposed to a particular group with specific health needs, which may have impacted the results of our quantitative analysis.

Most quantitative measures changed significantly across the domains analyzed, but the direction of change was mixed, and systematic patterns were difficult to discern. The exception was SUD care measures, which generally improved for people with any behavioral health condition and people with comorbid conditions over the observation period. Similar to findings in the MTP Interim Report, we observed improvements in follow-up after hospitalizations and ED visits for alcohol and drug disorders but reductions in follow-up after hospitalizations and ED visits for mental health conditions. These findings suggest that hospital systems may have developed systems for managing patients with SUDs but that these changes have not extended to care for patients with mental health conditions.

SDOH measures of homelessness, employment, and arrests improved over the observation for both target populations. In contrast, most mental health care measures, except for antidepressant medication maintenance, worsened over the observation period.

Three factors may explain these findings. First, provider organizations experienced difficulty hiring and retaining workers and advancing bi-directional integration models amid acute needs during the COVID-19 PHE. Second, behavioral health agencies experienced a unique set of challenges with bi-directional integration. Capacity constraints from the IMC transition, negotiating multiple new MCO contracts, changing billing practices, and adopting new EHRs all delayed the implementation of integrated care delivery. Third, our quantitative analysis focused on the Apple Health-enrolled population broadly, but there was variability in who partners targeted for their Project 2A efforts. Some partner organizations may have made substantial changes in care for specific groups of patients, which are not detectable in our analysis of the larger Apple Health-enrolled population.

CHAPTER 7

Health Improvement Project 2B

This chapter presents results of the summative evaluation of MTP Initiative 1 Health Improvement Project 2B, **"Community-Based Care Coordination."**

We provide background on the topic area, then summarize the changes to care that Project 2B was designed to produce. Through key informant interviews and reviews of program documents collected during the evaluation period, we then describe project implementation through 2022. We also provide results from analyses of health care claims data to inform whether and how health outcomes changed for key populations through this initiative.

Background

Health care organizations can use community-based care coordination models to support patients with complex health and social needs. These programs connect people to appropriate health and social services in the community. These connections are particularly important when health systems lack internal tools or resources to address identified needs.[26] Even when social services exist in the community, health systems may lack the knowledge of and relationships with community-based organizations needed to implement these programs effectively. They may also lack capacity to follow up with patients once a referral or connection has been made.

The Pathways Community HUB model is an example of a community-based care coordination program that provides infrastructure to coordinate care among health and social service organizations.[27] This model features a central entity within the community (often called a "hub") and may include the following elements:

- Discovery of new clients through referral or community outreach
- Comprehensive assessment of people's health and social service needs
- Referral pathways that connect clients with appropriate programs (e.g., connecting a client who has an unstable housing situation with a local housing authority)
- Provision of services based on the assigned pathways
- Monitoring clients' status within pathways to track receipt of services or other outcomes

The Pathways Community HUB model often relies on community health workers (CHWs) or other care coordinators to perform these activities. Although there have been few large-scale evaluations of this model to date, some evidence suggests the promise of this model to reduce low birth weights and produce cost savings among high-risk pregnant women.[28,29]

MTP Project Toolkit Guidance

The objective of Project 2B was to promote care coordination across the continuum of health for Apple Health enrollees, ensuring those with complex health needs are connected to the interventions and services needed to improve and manage their health. The MTP Project Toolkit identified Apple Health enrollees (adults and children) with one or more chronic diseases or conditions (e.g., asthma, diabetes, heart disease), mental illness or depressive disorder, or moderate to severe SUD and at least one social risk factor (e.g., unstable housing, food insecurity, high emergency medical services [EMS] utilization) as the target population for this HIP.

For ACHs that chose to participate in Project 2B, the MTP Project Toolkit identified the Pathways Community HUB model as the required approach and detailed a series of required planning and implementation steps described below.

- Identify and contract with an organization to serve as the hub for their region
- Recruit additional community partners, such as patient-centered medical homes, willing to participate in screening, navigation, and information exchange with the hubs as care coordination agencies (CCAs)
- Hire and train hub staff, including CHWs
- Select and implement specific referral pathways
- Develop data infrastructure

According to the Pathways Community HUB Manual,[30] a hub must:

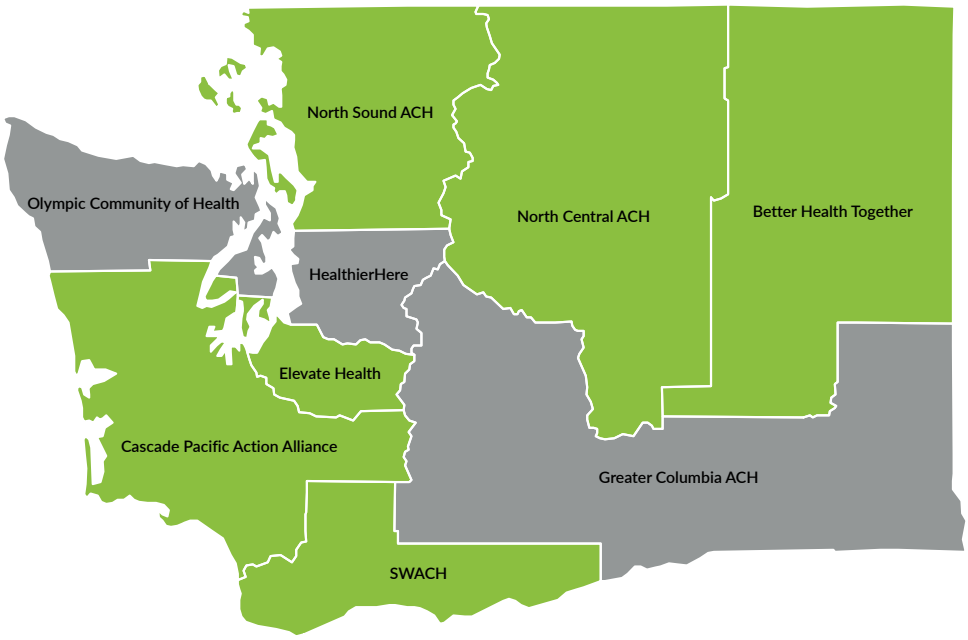
- Be a neutral entity in the community that does not hire its own care coordinators
- Be the only hub in the region
- Be an independent entity or an affiliated component of a legal entity
- Be based in the region or community that it is serving
- Have a Community Advisory Board comprised of members who are reflective of the region the hub serves

Project 2B Implementation Evaluation

Participating ACHs

Participation in Project 2B was optional, and five ACHs selected it for implementation: BHT, CPAA, EH, NSACH, and SWACH* (see Exhibit 7.1).

Exhibit 7.1. ACHs Participating in Project 2B, Community-Based Care Coordination



* NCACH initially elected to participate in Project 2B but decided to close its Pathways Community HUB Program in June 2019.

In addition to this formal participation in Project 2B, the three ACHs not formally participating in Project 2B (Greater Columbia ACH, HealthierHere, and Olympic Community Health) opted to contract with partners to implement care coordination strategies in other areas. These efforts often included elements similar to Project 2B, such as the creation of care teams or the provision of care coordination for other MTP projects, such as 2C: Transitional Care.

Target Population Selection

Based on community needs assessments and stakeholder feedback, ACHs varied in how narrowly or broadly they defined the target population for Project 2B. These definitions dictated the number of people eligible to participate in Project 2B and receive care coordination services. Two ACHs selected narrowly defined target populations (e.g., those transitioning from jail who had three or more ED visits within the past 12 months). The remaining four ACHs selected more broadly defined target populations, including, for example, higher-risk patients who were not eligible for enrollment in health homes or those with one or more risk factors (e.g., housing insecurity or recent jail admission). ACHs selecting broadly defined target populations appeared to have had higher enrollment and numbers of people with completed pathways compared with ACHs that targeted a more narrowly defined group of people.

Qualitative Methods

Sample. We examined Project 2B from the viewpoint of ACH leaders, ACH partner organizations, and MCOs. We conducted 23 interviews with ACH representatives, two to six per ACH, who were able to speak about Project 2B implementation. We interviewed executive directors and program managers who were purposively selected for their knowledge about contracts with partner organizations and their experience with Project 2B. We conducted interviews with 17 leaders at medical partner organizations (e.g., primary care practices, Federally Qualified Health Centers [FQHCs], hospital systems) and 13 interviews with leaders at behavioral health agencies to learn about their experiences working with their ACH on Project 2B. We conducted interviews with six MCOs, with at least one representative from each of the five MCOs operating in the state.

Data Collection. We completed semi-structured interviews between May 2019 and June 2023. Interviews were conducted iteratively, and we interviewed ACH leaders before partner organization leaders. This allowed our team to use what we learned from ACH leader interviews to inform questions we explored with later participants.

Analysis. We used a deductive approach, as we wanted to identify, categorize, and describe the implementation support strategies ACHs used for Project 2B and, to the extent possible, the specific changes ACH partner organizations made related to Pathways Community HUBs.

Limitations. Interviews with ACH leaders and program managers covered multiple topics related to Domain 1 and other HIPs. ACHs may have promoted interventions or provided additional implementation support not disclosed during interviews. Some aspects of the Pathways Community HUB model involved community-based organizations to implement these interventions, who were not interviewed as part of the evaluation design.

Implementation Strategies

ACHs launched their Project 2B efforts at varying times, from early 2017 to late 2019. By mid-2019, all six ACHs had contracted with CCAs to provide care coordination services and implemented the Pathways Community HUB model's HIT tool (Care Coordination Systems, or CCS) or another selected option (e.g., Unitus and Innovacer) to support tracking enrollment, identifying and assigning care pathways, and monitoring progress. During the project implementation period, ACHs also trained CHWs, the primary workforce supporting the Pathways model. CHWs were employed by the CCAs and were primarily responsible for care coordination tasks such as helping

patients connect with primary care and community-based providers and other needed social or medical supports. Partnering organizations reported working with CHWs to connect patients to needed services.

In addition, ACHs encouraged clinical-community linkages, where clinical and community-based partners were supported and sometimes required by ACHs to contract together to support service access and coordination. Partnering behavioral health and primary care provider organizations reported that the hub provided more possibilities to connect patients with community-based providers to address social needs (such as housing) and improve access to some types of medical care, including medication-assisted treatment (MAT). ACHs, contracted partners, and care coordination staff (e.g., CHWs) worked to establish these connections and Pathways Community HUB referral networks.

ACHs Provided Support to Partners for Project 2B

ACHs reported that they had:

Provided training to support Pathways Community HUB model implementation. ACHs trained partners on the requirements of the model, how to use the selected care coordination platform (e.g., CCS, Innovacer), and how to ensure that services were properly documented.

Opted to serve as the hub in their region. All five participating ACHs opted to serve as the hub. The sixth ACH, NCACH, had initially contracted this role out to a community partner but chose to close their program in June 2019.

Contracted with a varied number of community partners as Care Coordination Agencies. ACHs implemented Project 2B in partnership with CCAs responsible for service provision and coordination. The number of unique CCAs contracted with each ACH ranged from three to 12. The number of CCAs was impacted by the availability of organizations in the region that could fulfill these roles as well as the particulars of ACH strategies. For example, one ACH predominantly operated their hub in one city in partnership with a jail to support transitions into the community.

Other Factors May Have Influenced Project 2B Implementation

BHT had prior experience using the Pathways Community HUB model through the State Innovation Model grant. This grant allowed them to initiate their program and build connections with local community-based and clinical care providers before MTP began.

SWACH had an established regional workforce of CHWs prior to the start of MTP. In the SWACH region, an organization called the Healthy Living Collaborative had a network of CHWs that SWACH was able to leverage for their hub implementation.

Hubs experienced challenges retaining CHWs. A high turnover rate among CHWs was attributed to limited opportunities for career advancement, the absence of standardized practices, low wages, and frequent exposure to trauma-centered work.

Information-sharing platforms used for the hub were expensive and incompatible with other health information technology tools. The CCS and Innovacer platforms did not integrate with organizations' EHRs and other HIT tools. Partnering provider organizations described the platforms as challenging to integrate into existing workflows and sometimes duplicative with other documentation tools organizations used.

ACHs experienced challenges with reaching rural areas. ACHs varied in the extent to which care coordination services were available across their entire geographic region. Hubs, particularly those in rural areas, experienced challenges reaching clients in all areas. Reach was influenced by the network of CCAs with whom the ACHs contracted and varied by region. Four out of six ACHs contracted with enough CCAs to provide access to hub services in all of their respective counties. The other two had access in fewer counties, either due to a narrower target population or limited availability of potential CCAs in the region.

In addition to the factors outlined here, Chapter 14 describes cross-cutting findings that impacted multiple HIPs.

Project 2B COVID-19 Response

Hubs provided support during the pandemic. Hubs were designed to connect people with needed services and support, which was critical during the pandemic. They assisted with connecting people to housing, delivering food, and supporting those testing positive for COVID-19 with resources.

Sustainability

MCOs opted against funding the Pathways Community HUB program, leaving the continuation of this program up to ACHs to finance. The ACHs provided initial funding of their Pathways Community HUB programs, with the expectation that the model would eventually be reimbursed by MCOs. However, MCOs chose not to finance the model, justifying their choices on the basis of insufficient proof of the model's impact and duplication with existing MCO efforts. MCO representatives further described the model as duplicative with the state's already established Health Home program, despite the fact that ACHs attempted to avoid duplication with this program by collaborating with health homes to select different target populations, develop mutual referral processes, and ensure placement in the appropriate program. In contrast to MCOs, ACHs felt the program was successful and a valuable offering to the region. Furthermore, in October 2019, HCA indicated that they were no longer endorsing the Pathways model but would continue to support the Health Home model, which pre-dated the transformation and was recognized as a Medicaid Provider Program.[31,32] HCA allowed ACHs to close their Pathways Community HUB program during the transformation period, which one ACH, NCACH, chose to do in June 2019.

ACHs have not secured sustainable funding for their hubs. Despite not having a payer, ACHs (excluding NCACH) continued to fund their programs through the transformation period. Four ACHs intended to continue this program after 2023. ACH participants who were interviewed in 2023 reported they were still seeking funding from various sources, such as philanthropy, grants, and reserved ACH funds. Elevate Health will not re-certify as a hub, but they intend to continue their work with community-based care coordination organizations and CHWs.

Quantitative Evaluation Methods

Because Health Improvement Project 2B was optional for ACHs, we compared the outcomes of Apple Health enrollees in ACHs that participated in Project 2B to those in ACHs that did not. We chose to exclude NCACH from the participating ACHs in these analyses because of the voluntary closure of their Pathways program in 2019. Specifically, our quantitative analysis of Project 2B used a difference-in-differences approach to compare outcome changes among individuals residing in ACHs that selected this HIP to outcome changes among individuals residing in other ACHs. Activities in other non-participating ACH regions such as the introduction of a similar program, or other interventions that drive changes in our target populations, may affect the difference-in-differences estimates. However, the presence of these interventions does not constitute a bias if such changes reasonably represent activities that Project 2B ACHs would have undertaken in the absence of the project.

We estimated three types of changes. First, we measured changes in outcomes from the pre-intervention period, which we refer to as "baseline," (January 2017-December 2018) to the peak COVID-19 PHE years, "peak PHE years," (January 2020-December 2021), recognizing that these years might be the most disrupted by the COVID-19

PHE. Second, we measured changes in outcomes from the baseline period to 2022, the final year of our evaluation of the MTP demonstration (January 2022-December 2022), and the year when the most disruptive impacts of the COVID-19 PHE may have dissipated. Finally, we measured changes between the peak PHE years and 2022, which may indicate resilience and recovery as the health system emerged from the PHE. We adjusted for regional differences in Apple Health enrollees' age, gender, urban and rural residence, and a limited set of Chronic Illness and Disability Payment System (CDPS) risk indicators that could otherwise explain observed differences across regions. See Appendix B for methodological details.

Target Populations. ACHs identified various target populations for Project 2B efforts, which made standardized evaluation challenging. We focused our analysis on two potential beneficiary populations of Project 2B efforts.

1. People with comorbid behavioral health and chronic physical health conditions
2. High-risk pregnant women

Our first study population included people with a qualifying mental health or substance abuse diagnosis in the measurement year or the previous year and a physical health comorbidity (defined by the Chronic Conditions Data Warehouse). We selected this target population because it broadly reflected the target populations of participating ACHs. We note an exception that SWACH's target population included a focus on chronic pain. Therefore, this ACH's target population may include individuals who did not meet our criteria.

The second study population focused on pregnant women with behavioral health diagnoses. Using indicators provided by Washington State's Department of Social and Health Services, we selected all enrollees who were pregnant and delivered in the second, third or fourth quarter, or who were pregnant in the second or third quarter and remained pregnant until the end of the measurement period. We further limited this population to enrollees with a qualifying mental health or substance abuse diagnosis in the measurement year or the previous year.

We considered this target population because it included an important subpopulation of people with behavioral health conditions who might especially benefit from care coordination. However, we note that this study population is not well aligned with the Project 2B efforts of BHT, whose program focused on people transitioning from jail, or the target population of SWACH, which focused on people experiencing homelessness.

Summative Evaluation Results

We present the results of our evaluation of Health Improvement Project 2B, "Community-Based Care Coordination" below. These results reflect changes from the baseline period, 2017-2018, through the peak PHE years, 2020-2021, and the final year of the evaluation, 2022.

Outcomes are presented for the two populations of interest: (1) people with comorbid behavioral health and chronic physical health conditions; and (2) high-risk pregnant women. A guide to reading results describes how to interpret tables (see Chapter 5, How to Read this Section: Health Improvement Projects). The Data Appendix displays changes in outcomes for the two target populations across all nine ACHs.

Analysis 1: People with Comorbid Behavioral Health and Chronic Physical Health Conditions

Most outcomes measured for Project 2B did not change significantly over the observation period (Exhibit 7.2). The rate of homelessness increased among individuals residing in Project 2B ACHs compared to individuals residing in other ACHs between baseline and the peak PHE years (+0.4%) and between peak PHE years and 2022 (+0.4%). The employment rate for members of this population ages 18-64 also increased (1.7%), with most of the differential change (+1.5%) occurring between the baseline period and the peak PHE years. The arrest rate for those ages 18-

64 increased by 1.0% more among individuals residing in Project 2B ACHs compared to individuals residing in other ACHs from baseline to the peak PHE years, but subsequently decreased from peak PHE years to 2022 (-0.6%).

Changes for most mental health care measures were similar among individuals residing in Project 2B ACHs and individuals residing in other ACHs over the observation period. However, mental health treatment penetration rates increased more among individuals residing in Project 2B ACHs compared to individuals residing in other ACHs from baseline to 2022 (+1.2%), driven by changes from the baseline to the peak PHE years (+1.2%).

We observed both differential decreases and increases in measures of care for people with chronic conditions among individuals residing in Project 2B ACHs compared to individuals residing in other ACHs from baseline to 2022. For enrollees in this target population with diabetes, there were differential decreases in the rate of eye exams (-1.9%) and hemoglobin A1c testing (-1.7%), but a differential increase in the rate of kidney health evaluations (+2.5%).

The ED, hospital, and institutional care use measures had mixed changes, with two measures changing significantly over the entire observation period. Between the baseline and 2022 periods, the hospital readmission rate within 30 days decreased by 1.4% more among individuals residing in Project 2B ACHs compared to individuals residing in other ACHs. The ED visit rate per 1,000 member months increased 2.2 visits more among individuals residing in Project 2B ACHs compared to individuals residing in other ACHs.

All five SUD care measures exhibited statistically significant improvements from baseline to the peak PHE years among individuals residing in Project 2B ACHs compared to individuals residing in other ACHs, although most improvements were attenuated by changes from peak PHE years to 2022. Relative improvements were seen between the baseline years and peak PHE years for SUD treatment for people with treatment need (+1.7%), initiation (+1.5%) and engagement (+0.8%) of alcohol or other drug treatment, and both 7-day (+3.0%) and 30-day (+4.8%) follow-up after ED visit for alcohol or drug use. However, significant relative improvements only remained over the entire observation period for SUD treatment for people with treatment need (+1.3%).

Results for spending metrics were generally stable for people with comorbid behavioral and chronic physical health conditions over the observation period among individuals residing in Project 2B ACHs compared to individuals residing in other ACHs. Spending on SUD care decreased significantly among individuals residing in Project 2B ACHs compared to individuals residing in other ACHs (+$34 Per Member Per Month [PMPM]) between baseline and 2022, largely driven by changes from baseline to peak PHE years.

Exhibit 7.2. Change in Outcomes for People with Comorbid Behavioral and Physical Chronic Conditions

Metrics Grouped by Domain		Treated Baseline	Comparison Baseline	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D1: Social Determinants of Health						
Homelessness	[3] ↓	17.7%	18.2%	0.4%*	0.8%*	0.4%*
Employment (Age 18 to 64)	[0]	41.3%	42.9%	1.5%*	1.7%*	0.2%
Arrest Rate (Age 18 to 64)	[1] ↓	11.1%	12.2%	1.0%*	0.4%*	-0.6%*
D2: Access to Primary and Preventive Care						
Adults' Access to Primary Care	[0]	94.7%	94.7%	0.1%	-0.2%	-0.4%
Well-Care Visits Ages 3 to 21	[2]	51.1%	53.9%	1.8%*	-0.6%	-2.4%*
D5: Mental Health Care						
Mental Health Treatment Penetration	[3]	69.0%	70.3%	1.2%*	1.2%*	0.0%
30-Day Hospital Readmission for a Psychiatric Condition	[0] ↓	13.4%	13.8%	0.8%	-0.1%	-0.8%
Antidepressant Medication for Adults (12 Weeks)	[1]	54.4%	51.6%	-1.1%	-2.3%*	-1.3%
Antidepressant Medication for Adults (6 Months)	[1]	39.1%	36.3%	-1.1%	-1.0%	0.0%
Antipsychotic Medication for People with Schizophrenia	[0]	65.1%	64.7%	-1.6%	0.0%	1.6%
Diabetes Screening for People with Schizophrenia/Bipolar Disorder	[0]	84.5%	83.8%	-0.5%	0.4%	0.9%
7-Day Follow-Up After ED Visit for Mental Illness	[3]	67.5%	65.8%	-1.9%	-2.4%	-0.4%
30-Day Follow-Up After ED Visit for Mental Illness	[3]	78.3%	76.8%	-1.7%	-0.5%	1.2%
7-Day Follow-Up After Hospitalization for Mental Illness	[3]	64.2%	62.4%	-0.8%	-1.3%	-0.5%
30-Day Follow-Up After Hospitalization for Mental Illness	[3]	80.4%	77.7%	-0.9%	-1.4%	-0.5%
D7: Care for People with Chronic Conditions						
Controller Medication for Asthma	[2]	52.4%	49.8%	-3.4%*	0.1%	3.4%
Eye Exam for People with Diabetes	[2]	39.9%	39.2%	-0.3%	-1.9%	-1.6%
Hemoglobin A1c Testing for People with Diabetes	[2]	82.2%	81.7%	0.0%	-1.7%*	-1.6%
Kidney Health Evaluation for People with Diabetes	[2]	40.0%	48.5%	0.7%	2.5%*	1.8%
D8: Emergency Department, Hospital, and Institutional Care Use						
Ratio of Home and Community-Based Care Use to Nursing Facility Use	[0]	94.6%	92.0%	-1.1%	-1.0%	0.2%
Hospital Readmission within 30 Days	[3] ↓	15.7%	15.8%	-0.6%	-1.4%	-0.8%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	114.2	129.8	4.6*	2.2	-2.4
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	165.9	166.4	-3.8	-0.8	3.0
D9: Substance Use Disorder Care						
Substance Use Disorder Treatment for People with Treatment Need	[3]	34.7%	33.8%	1.7%*	1.3%*	-0.4%
Alcohol or Other Drug Treatment: Initiation	[0]	36.1%	33.7%	1.5%	-0.9%	-2.4%*
Alcohol or Other Drug Treatment: Engagement	[0]	12.4%	10.0%	0.8%	0.3%	-0.5%
7-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	27.3%	25.4%	3.0%*	0.5%	-2.6%
30-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	40.2%	40.6%	4.8%*	1.9%	-2.9%
D11: Spending						
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$988	$997	$0	-$7	-$6
Total Spending Per Member, Per Month	[0] ↓	$1,214	$1,223	-$1	-$9	-$8
LTSS Spending Per Member, Per Month	[0] ↓	$133	$142	$8	$8	-$1
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$302	$273	$8	$1	-$7
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$911	$950	-$8	-$10	-$1
Substance Use Disorder Spending Per Member, Per Month	[0] ↓	$142	$91	-$37*	-$34*	$3

Analysis 2: High-Risk Pregnant Women

There were relatively few statistically significant changes observed in this target population, and we did not observe significant improvements across all measures. Rates of mental health treatment penetration (-3.4%) and adults with depression who remained on antidepressant medication for 12 weeks (-7.5%) decreased among individuals residing in Project 2B ACHs compared to individuals residing in other ACHs between baseline and 2022.

Measures in the domains of care for people with chronic conditions, care utilization, and SUD care remained relatively stable among individuals residing in Project 2B ACHs compared to individuals residing in other ACHs over the observation period. A few improvements were observed between baseline and peak PHE years, with fewer acute hospital adult discharges (-14.5 visits per 1,000 members) and a higher rate of initiation of alcohol or other drug treatment (+5.5%) among individuals residing in Project 2B ACHs compared to individuals residing in other ACHs.

Most spending measures decreased significantly between the baseline and 2022 for high-risk pregnant women residing in Project 2B ACHs compared to high-risk pregnant women residing in other ACHs. Differential PMPM decreases were observed in this population for total spending (-$143 PMPM), total spending excluding pharmacy (-$183 PMPM), behavioral health care (-$78 PMPM), and SUD care (-$101 PMPM). These differential decreases in spending were driven by changes observed from baseline to the peak PHE years.

Exhibit 7.3. Change in Outcomes for High-Risk Pregnant Women

Metrics Grouped by Domain		Treated Baseline	Comparison Baseline	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D1: Social Determinants of Health						
Homelessness	[3] ↓	25.3%	24.3%	-0.7%	-0.8%	-0.1%
Employment (Age 18 to 64)	[0]	49.0%	50.0%	0.3%	-0.2%	-0.6%
Arrest Rate (Age 18 to 64)	[1] ↓	10.4%	11.7%	1.0%	0.9%	-0.1%
D2: Access to Primary and Preventive Care						
Adults' Access to Primary Care	[0]	97.5%	98.1%	0.6%	0.6%	0.1%
Well-Care Visits Ages 3 to 21	[2]	32.6%	31.0%	3.5%	-3.9%	-7.1%
D5: Mental Health Care						
Mental Health Treatment Penetration	[3]	63.1%	63.7%	-1.2%	-3.4%	-2.1%
30-Day Hospital Readmission for a Psychiatric Condition^^	[0] ↓	8.3%	18.3%	13.5%	1.3%	-14.9%
Antidepressant Medication for Adults (12 Weeks)^	[1]	44.8%	40.0%	-3.1%	-7.5%	-4.3%
Antidepressant Medication for Adults (6 Months)^	[1]	27.1%	24.1%	-3.4%	-1.2%	2.4%
Antipsychotic Medication for People with Schizophrenia^^	[0]	47.9%	57.7%	-14.0%	7.4%	20.0%
Diabetes Screening for People with Schizophrenia/Bipolar Disorder^	[0]	94.6%	96.6%	6.0%	1.5%	-4.4%
7-Day Follow-Up After ED Visit for Mental Illness^	[3]	60.1%	65.3%	11.9%	20.9%	11.2%
30-Day Follow-Up After ED Visit for Mental Illness^	[3]	75.2%	73.5%	3.7%	3.3%	0.3%
7-Day Follow-Up After Hospitalization for Mental Illness^	[3]	51.0%	55.4%	1.0%	6.9%	6.8%
30-Day Follow-Up After Hospitalization for Mental Illness^	[3]	69.8%	73.1%	3.2%	7.7%	5.0%
D7: Care for People with Chronic Conditions						
Controller Medication for Asthma^	[2]	38.6%	35.5%	-7.0%	5.6%	10.3%
Eye Exam for People with Diabetes^	[2]	45.5%	37.2%	-1.2%	2.8%	4.6%
Hemoglobin A1c Testing for People with Diabetes^	[2]	82.0%	85.2%	3.9%	5.6%	1.9%

Exhibit 7.3. Change in Outcomes for High-Risk Pregnant Women (continued)

Metrics Grouped by Domain		Treated Baseline	Comparison Baseline	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D8: Emergency Department, Hospital, and Institutional Care Use						
Ratio of Home and Community-Based Care Use to Nursing Facility Use^	[0]	97.1%	94.6%	1.3%	-5.3%	-6.1%
Hospital Readmission within 30 Days	[3] ↓	15.1%	14.0%	-3.4%	-3.1%	0.2%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	182.7	206.1	1.6	1.1	-0.8
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	99.6	101.6	-14.5	-14.8	-0.6
D9: Substance Use Disorder Care						
Substance Use Disorder Treatment for People with Treatment Need	[3]	40.8%	38.7%	1.1%	0.0%	-1.0%
Alcohol or Other Drug Treatment: Initiation	[0]	41.3%	42.2%	5.5%	1.4%	-4.4%
Alcohol or Other Drug Treatment: Engagement	[0]	15.4%	14.1%	1.0%	-1.4%	-2.2%
7-Day Follow-Up After ED Visit for Alcohol/Drug Use^	[3]	31.8%	24.2%	-6.5%	-13.9%	-6.9%
30-Day Follow-Up After ED Visit for Alcohol/Drug Use^	[3]	45.0%	41.4%	-7.3%	-7.8%	0.4%
D11: Spending						
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$1,465	$1,414	-$156*	-$183*	-$31
Total Spending Per Member, Per Month	[0] ↓	$1,689	$1,709	-$106	-$143	-$39
LTSS Spending Per Member, Per Month	[0] ↓	$28	$45	$3	$5	$1
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$374	$256	-$89*	-$78	$9
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$1,314	$1,453	-$17	-$65	-$49
Substance Use Disorder Spending Per Member, Per Month	[0] ↓	$311	$191	-$108*	-$101*	$6

Conclusion

By 2019, six ACHs had begun Project 2B efforts to support community-based care coordination for patients with complex health and social needs. ACHs served as the hub in their region, which allowed for enhanced oversight and information sharing among partners. ACHs also trained CHWs to support the model and reported that having an established regional CHW workforce prior to MTP facilitated Project 2B implementation. Target populations were chosen based on regional priorities, and ACHs varied in how narrowly or broadly they defined their target populations, which made standardized evaluation challenging.

Given the range of target populations ACHs chose, we expected more changes in measures for the first target population, individuals with comorbid behavioral and chronic physical health conditions, compared to measures for the more specific target population of high-risk pregnant women. The first target population had difference-in-differences estimates that were inconsistent in direction across domains. Across the entire observation period, some measures, such as hospital readmissions, improved while others, like the ED visit rate, worsened. Measures for the second target population were mostly stable, with the notable exception of spending measures, which largely decreased over the observation period.

Several factors may have influenced the mixed outcomes associated with this project. First, we note that variability in sample size may have driven the statistical significance of differences for some measures. Second, ACHs shared limitations around retaining CHWs, reaching clients in rural areas, and integrating CCS into existing EHRs and workflows. Third, MCOs did not provide funding for the Pathways Community HUB program during the MTP waiver, citing duplicative efforts with Washington's Health Home program. HCA's lack of continued endorsement for hubs in 2019 left the state's future of the model uncertain and required ACHs to finance the hubs themselves to continue the work. Finally, we note that ACH's Project 2B efforts to connect individuals to primary care and services to support health-related social needs may have also impacted outcomes we report in Chapter 1 across Domain 1 (SDOH) and Domain 2 (Access to Primary and Preventive Care) metrics.

Health Improvement Project 2C

This chapter presents results of the summative evaluation of MTP Initiative 1 Health Improvement Project 2C, **"Transitional Care."**

We provide background on the topic area, then summarize the changes to care that Project 2C was designed to produce. Through key informant interviews and reviews of program documents collected during the evaluation period, we then describe project implementation through 2022. To inform whether and how health outcomes changed for key populations through this initiative, we highlight results of an analysis of health care claims data.

Background

A "care transition" refers to the process of moving patients between different levels or locations of care. Transitions occur when a patient is discharged from a hospital to a rehabilitation center or a patient's home or when someone is discharged from a carceral setting into the community. Care transitions are critical moments for patients, especially those with complex health conditions, as they involve the coordination of various health care providers to ensure continuity and safety in the patient's treatment and care plan.

Improving care transitions can support continuity and quality of care and reduce avoidable and costly hospital readmissions.[33] Transitional care interventions are designed to ensure that people with complex care needs moving between care settings receive the right care in the right place. These interventions can help build health system capacity to connect patients with appropriate resources.[34]

Given the high rates of chronic illness and social risk factors experienced by people transitioning from a carceral setting back into the community, a subgroup of MTP's care transition interventions are designed to meet the physical, behavioral, and social needs of this population.[35] The evidence linking jail transition programs to reduced recidivism and increased access to care is still emerging.[36] However, programs that support transitions from correctional settings to the community have demonstrated increased access to primary care and reductions in acute care.[37]

MTP Project Toolkit Guidance

The objective of Project 2C was to improve transitional care services to reduce avoidable hospital utilization and ensure Apple Health enrollees get the right care in the right place. The MTP Project Toolkit identified target populations as enrollees transitioning from intensive care or institutional settings to their homes or supportive housing, enrollees with SMI discharged from inpatient care, or enrollees returning to the community from prison or jail.

This project included seven approaches that were designed for people in residential healthcare settings, high-risk older adults, people with SMI, and those who are incarcerated and leaving jail to return to the community. Four of these approaches were focused on movement from one healthcare setting to another setting; three of these approaches were specific to transitions from incarcerated settings, as described below.

Evidence-Based Approaches for Transitional Care

- **Interventions to Reduce Acute Care Transfers.** A quality improvement program for the management of acute changes in resident conditions.
- **Transitional Care Model.** A model of transitional care for high-risk older adults that provides nurse-led, in-hospital planning, and in-home follow-up.
- **The Care Transitions Intervention.** A multidisciplinary approach incorporating physical, behavioral, and social health needs and perspectives.
- **Care Transitions Interventions in Mental Health.** A set of components of transitional care that can be adapted for managing transitions among persons with SMI.

Evidence-Informed Approaches for Transitions from Incarcerated Settings

The approaches that informed transitions from incarcerated settings focus on providing transitional care and coordination for people with behavioral health needs and with co-occurring chronic conditions.

- **Guidelines for the Successful Transition of People with Behavioral Health Disorders from Jail and Prison.**[38]
- **A Best Practice Approach to Community Reentry from Jails for Inmates with Co-occurring Disorders: The APIC Model.**[39]
- **American Association of Community Psychiatrists' Principles for Managing Transitions in Behavioral Health Services.**[40]

To support Project 2C efforts, HCA coordinated work with the Washington-designated health information technology platform, OneHealthPort. OneHealthPort was responsible for building and implementing infrastructure used for HIT, as well as developing tools and services that supported broader provider access and utilization of both HIT and clinical data.

Project 2C Implementation Evaluation

Participating ACHs

Participation in Project 2C was optional, and five ACHs selected it for implementation: CPAA, GCACH, HH, NCACH, and NSACH (See Exhibit 8.1).

Exhibit 8.1. ACHs Participating in Project 2C, Transitional Care

* NCACH initially elected to participate in Project 2B but decided to close its Pathways Community HUB Program in June 2019.

Target Population Selection

In line with the MTP Project Toolkit, ACHs designated Apple Health enrollees transitioning from intensive care or institutional settings to their homes, supportive housing, or communities as the target population. In addition, some ACHs also selected subpopulations such as non-Apple Health covered individuals, Apple Health or non-Apple Health covered individuals with criminal legal system involvement, Apple Health enrollees experiencing homelessness, or Apple Health enrollees with SMI.

Qualitative Methods

Sample. We examined Project 2C from the viewpoint of ACH leaders and ACH partner organizations. We conducted 15 interviews with ACH representatives, two to four per ACH, who were able to speak about Project 2C implementation. We interviewed executive directors and program managers who were purposively selected for their knowledge about contracts with partner organizations and their experience with Project 2C. We conducted interviews with 15 leaders at medical partner organizations (e.g., primary care practices, Federally Qualified Health Centers [FQHCs], hospital systems) and 12 interviews with leaders at behavioral health agencies to learn about their experiences working with their ACH on Project 2C.

Data Collection. We completed semi-structured interviews between May 2019 and April 2023. Interviews were conducted iteratively, and we interviewed ACH leaders before partner organization leaders. This allowed our team to use what we learned from ACH leader interviews to inform questions we explored with later participants.

Analysis. We used a deductive approach, as we wanted to identify, categorize, and describe the implementation support strategies ACHs used for Project 2C and, to the extent possible, the specific changes ACH partner organizations made related to care transitions.

Limitations. Interviews with ACH leaders and program managers covered multiple topics related to Domain 1 and other HIPs. ACHs may have promoted interventions or provided additional implementation support that was not disclosed during interviews. Some aspects of the care transition interventions involved community-based organizations to implement these interventions, who were not interviewed as part of the evaluation design.

ACHs Provided Support to Partners for Project 2C

ACHs reported that they had:

Funded technical assistance, training, health information technology, and staff to support care transitions. ACHs supported partnering providers by funding technical assistance and training as they adopted new workflows, referral processes, and quality improvement initiatives to support care transitions. HIT systems often required considerable funding, and ACHs financed new platforms their partners needed to support information sharing across organizations. Partners primarily used the Emergency Department Information Exchange (EDIE) from PointClickCare, which worked well with their pre-existing electronic health records (EHRs). This system alerted known care providers that their patient presented at the ED, creating opportunities for clinical and community-based providers to coordinate services and transitions.

ACHs also funded care navigator staff. Care navigator positions were employed in a variety of settings (e.g., hospitals, jails, Pathways Community HUB) and supported care transitions by connecting patients to necessary medical care and appointments and supporting them with community reentry following hospitalization or incarceration. For example, care navigators helped with housing and employment needs, making primary care appointments, enrolling in Apple Health, and connecting to SUD treatment. ACHs also hired recovery coaches to train other recovery coaches to assist people with SUD transitioning from the ED, a hospital stay, or criminal justice setting. These staff were located in hospitals, EDs, or incarceration settings. They connected people to medication-assisted treatment or other treatment and recovery services.

Organized educational opportunities like training and learning collaboratives to support Project 2C implementation, collaboration, and peer learning. ACHs provided training and implementation support on Toolkit models, including the Transitional Care Model, Care Transitions Intervention, and Physician Orders for Life-Sustaining Treatment (POLST) forms. Furthermore, the collaboratives supported connections between otherwise siloed organizations and systems, like primary care provider organizations and local criminal justice systems. A GCACH partnering organization described using the Transitional Care Model for people transitioning out of inpatient care and following up with them within 48 hours of discharge, while a NSACH partnering provider focused on acute care transitions to skilled nursing facilities.

Leveraged and aligned their work with the Pathways Community HUBs. The Pathways Community HUB (Project 2B) facilitated care coordination across clinical and social service organizations and provided supports for people transitioning back into the community. Three ACHs that selected Project 2B also selected Project 2C (CPAA, NCACH, and NSACH). The Pathways Community HUB supported the goals of addressing whole-person care needs and transitional supports outlined in the Care Transitions Intervention.

Connected Project 2C work with Project 2D, Diversion Interventions, which helped people access appropriate levels and settings of care. NCACH and NSACH chose to work on Projects 2C and 2D. The community paramedicine model expanded paramedics' role by assisting patients in their homes and communities with primary health care and preventive services. These efforts were not listed in the MTP Toolkit as approved strategies for Project 2C.

However, they were used to address avoidable hospital utilization and to facilitate referrals to and connections with clinical and community-based services.

Other Factors May Have Influenced Project 2C Implementation

Participating ACHs had prior partnerships and connections as a result of State Innovation Model grants and projects that supported care transition goals. ACHs had connections with organizations that had longstanding presences in their communities that helped them get established at the beginning of MTP, before ACHs became standalone 501(c)3 agencies (e.g., CHOICE Regional Network, Benton-Franklin Community Health Alliance, Whatcom Alliance for Health Alliance). These ACHs started Project 2C implementation with existing relationships with organizations that could support the work.

State investments in the health information exchange platform, OneHealthPort, promoted information exchange. However, this platform did not initially include behavioral health partners and excluded non-medical partners. ACHs and partnering providers reported needing community information exchanges or alternative HIT/E tools for managing care transitions that involved behavioral health organizations, community-based organizations, and non-medical partners, such as jails or prisons. While behavioral health organizations were added to OneHealthPort later, community and social service provider organizations were not. EDIE, while useful, was limited to communicating exclusively about ED visits and was not designed for sharing comprehensive patient health information or supporting other types of care transitions.

Partnering provider organizations reported difficulty encouraging clinicians to use Physician Orders for Life-Sustaining Treatment forms. The POLST form documented a medical order for patients considered seriously ill or frail and detailed their health care services and preferences during a medical emergency. POLST forms were an MTP Toolkit requirement. However, partnering providers reported needing technical assistance in using the form, incorporating it into clinical workflows, building clinician awareness, and integrating it into EHRs.

In addition to the factors outlined here, Chapter 14 describes cross-cutting findings that impacted multiple HIPs.

Quantitative Evaluation Approach

Because Health Improvement Project 2C was optional for ACHs, we compared the outcomes of Apple Health enrollees in ACHs that participated in 2C to those in ACHs that did not. Specifically, our quantitative analysis of Project 2C used a difference-in-differences approach to compare outcome changes among individuals residing in ACHs that selected this HIP to outcome changes among individuals residing in other ACHs. Activities in other non-participating ACH regions, such as the introduction of a similar program, or other interventions that drive changes in our target populations, may affect the difference-in-differences estimates. However, the presence of these interventions does not constitute a bias if such changes reasonably represent activities that Project 2C ACHs would have undertaken in the absence of the project.

We estimated three types of changes. First, we measured changes in outcomes from the pre-intervention period, which we refer to as "baseline," (January 2017-December 2018) to the peak COVID-19 PHE years, "peak PHE years," (January 2020-December 2021), recognizing that these years might be the most disrupted by the COVID-19 PHE. Second, we measured changes in outcomes from the baseline period to 2022, the final year of our evaluation of the MTP demonstration (January 2022-December 2022), and the year when the most disruptive impacts of the COVID-19 PHE may have dissipated. Finally, we measured changes between the peak PHE years and 2022, which may indicate resilience and recovery as the health system emerged from the PHE. We adjusted for regional differences in Apple Health enrollees' age, gender, urban and rural residence, and a limited set of Chronic Illness and Disability Payment System (CDPS) risk indicators that could otherwise explain observed differences across regions. See Appendix B for methodological details.

Target Populations. Using the populations that ACHs described as intended beneficiaries of Project 2C as a guide, we focused our analysis on two specific populations.

1. People who have been discharged from a hospital in the last year with any chronic condition
2. People with criminal legal system involvement

For our first population, we included enrollees with a qualifying hospital discharge in the last two quarters of the past calendar year. We defined chronic conditions as the presence of any physical or behavioral health condition (defined by the Chronic Conditions Data Warehouse). Hospital discharges were identified as acute or non-acute inpatient stays. Hospital stays that ended in death or were related to pregnancy were excluded.

For our second population, we could not directly identify people transitioning from jail or prison. Thus, we focused on enrollees who had an arrest within the last two quarters of the past calendar year. Arrests were derived through data recorded in the Washington State Identification System, an arrest database maintained by the Washington State Patrol. The database comprises arrest charges for offenses resulting in fingerprint identification, providing a relatively complete record of felony and gross misdemeanor charges.

Summative Evaluation Results

We present the results of our evaluation of Health Improvement Project 2C, "Transitional Care" below. These results reflect changes from the baseline period, 2017-2018, through the peak PHE years, 2020-2021, and the final year of the evaluation, 2022.

Outcomes are presented for the two populations of interest: (1) enrollees discharged from a hospital in the last year with any chronic condition; and (2) enrollees with criminal legal system involvement. A guide to reading results describes how to interpret tables (see Chapter 5, How to Read this Section: Health Improvement Projects). The Data Appendix displays changes in outcomes for the two target populations across all nine ACHs.

Analysis 1: People Discharged from the Hospital with Any Chronic Condition

Most measures for people discharged from the hospital with any chronic condition did not exhibit statistically significant changes (Exhibit 8.2). However, individuals residing in Project 2C ACHs experienced small differential decreases in homelessness between baseline and 2022 (-1.6%), with this differential change occurring between the peak PHE years and 2022. Mental health penetration rates decreased between baseline and the PHE peak years (-1.5%) and between baseline and 2022 (-2.9%) for individuals residing in Project 2C ACHs compared to individuals residing in other ACHs.

During the observation period, there were some slight improvements in the ratio of Home and Community-Based Care to Skilled Nursing Facilities, but this measure decreased between peak PHE years and 2022.

Most spending measures were relatively stable over the observation period among individuals residing in Project 2C ACHs compared to individuals residing in other ACHs. However, expenditures on behavioral health services increased significantly (+$61 PMPM) between the peak PHE years and 2022.

Exhibit 8.2. Change in Outcomes for People Discharged from the Hospital with Any Chronic Condition

Metrics Grouped by Domain		Treated Baseline	Comparison Baseline	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D1: Social Determinants of Health						
Homelessness	[3] ↓	25.0%	24.0%	0.0%	-1.6%	-1.6%
D5: Mental Health Care						
Mental Health Treatment Penetration	[3]	53.8%	52.9%	-1.5%	-2.9%*	-1.3%
30-Day Hospital Readmission for a Psychiatric Condition^	[0] ↓	18.8%	21.0%	1.7%	1.9%	0.0%
7-Day Follow-Up After ED Visit for Mental Illness^	[3]	68.3%	68.6%	0.2%	3.4%	3.2%
30-Day Follow-Up After ED Visit for Mental Illness^	[3]	78.6%	81.3%	1.8%	5.2%	3.6%
7-Day Follow-Up After Hospitalization for Mental Illness^	[3]	62.8%	65.2%	-0.3%	0.3%	0.7%
30-Day Follow-Up After Hospitalization for Mental Illness^	[3]	77.5%	80.9%	1.0%	2.3%	1.4%
D8: Emergency Department, Hospital, and Institutional Care Use						
Ratio of Home and Community-Based Care Use to Nursing Facility Use	[0]	91.9%	93.3%	2.6%	0.1%	-2.5%
Hospital Readmission within 30 Days	[3] ↓	23.8%	24.6%	-0.1%	0.3%	0.3%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	199.5	196.8	-1.2	-1.1	0.3
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	386.5	372.5	-12.2	-3.3	8.9
D9: Substance Use Disorder Care						
Substance Use Disorder Treatment for People with Treatment Need	[3]	29.8%	28.5%	1.5%	1.2%	-0.3%
7-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	26.0%	34.9%	-0.5%	0.0%	0.5%
30-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	42.1%	49.0%	1.9%	-0.6%	-2.5%
D11: Spending						
LTSS Spending Per Member, Per Month	[0] ↓	$217	$263	-$10	$14	$25
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$446	$470	-$23	$37	$61*
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$2,152	$2,071	-$57	-$31	$26

Analysis 2: People with Criminal Legal System Involvement

Individuals with arrests in the previous calendar year residing in Project 2C ACHs experienced slight decreases in homelessness between baseline and the peak PHE years (-1.7%) compared to individuals residing in other ACHs, although this measure increased between the peak PHE years and 2022 (+2.0%) (Exhibit 8.3). Mental health treatment penetration rates decreased between baseline and the PHE peak years (-4.0%) and between peak PHE years and 2022 (-3.0%). SUD treatment among individuals residing in Project 2C ACHs decreased between the baseline and peak PHE years (-2.1%).

Some of the largest changes were observed in follow-up rates after ED visits for mental health conditions. For 7-day follow-up after ED visit for mental illness, we estimated a 10.4% decrease between baseline and the peak PHE years and a 9.8% decrease between baseline and 2022 among individuals residing in Project 2C ACHs compared to individuals residing in other ACHs. The rate of 30-day follow-up decreased between baseline and the peak PHE years (-8.0%). Other changes for measures in this domain were not statistically significant. Spending measures were relatively stable over the observation period for individuals residing in Project 2C ACHs compared to individuals residing in other ACHs.

Exhibit 8.3. Change in Outcomes for People with Criminal Legal System Involvement

Metrics Grouped by Domain		Treated Baseline	Comparison Baseline	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D1: Social Determinants of Health						
Homelessness	[3] ↓	53.5%	51.7%	-1.7%*	0.3%	2.0%
D5: Mental Health Care						
Mental Health Treatment Penetration	[3]	57.1%	58.3%	-4.0%*	-3.0%*	1.0%
30-Day Hospital Readmission for a Psychiatric Condition^	[0] ↓	16.4%	18.9%	1.8%	2.8%	1.1%
7-Day Follow-Up After ED Visit for Mental Illness^	[3]	57.4%	55.3%	-10.4%*	-9.8%	0.2%
30-Day Follow-Up After ED Visit for Mental Illness^	[3]	67.1%	68.1%	-8.0%*	-5.8%	2.1%
7-Day Follow-Up After Hospitalization for Mental Illness^	[3]	54.7%	56.8%	-2.4%	-1.1%	0.8%
30-Day Follow-Up After Hospitalization for Mental Illness^	[3]	69.8%	74.6%	0.7%	3.2%	2.2%
D8: Emergency Department, Hospital, and Institutional Care Use						
Ratio of Home and Community-Based Care Use to Nursing Facility Use^	[0]	90.2%	92.1%	2.1%	1.3%	-1.5%
Hospital Readmission within 30 Days	[3] ↓	15.3%	14.4%	-0.9%	1.2%	2.1%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	150.3	140.1	-3.9	5.1	9.3
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	125.6	113.9	-3.1	4.0	7.0
D9: Substance Use Disorder Care						
Substance Use Disorder Treatment for People with Treatment Need	[3]	52.3%	51.4%	-2.1%*	-2.1%	0.0%
7-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	20.3%	30.2%	-1.4%	1.9%	3.3%
30-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	32.2%	41.7%	-1.6%	-0.3%	1.2%
D11: Spending						
LTSS Spending Per Member, Per Month	[0] ↓	$13	$23	-$5	-$12	-$7
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$501	$514	$40	$40	$1
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$507	$474	-$5	$34	$42

Conclusion

Five ACHs were involved in Project 2C's implementation through a variety of supportive strategies. They spearheaded organizing and funding new learning collaboratives, trainings and technical assistance events, facilitating the integration of innovative health care tools like interoperable HIT systems and shared care plans and promoting peer learning and networking among regional health care and social service organizations. These approaches were designed to reduce silos between disparate entities such as primary care providers and the criminal justice system and enhance care coordination and transition processes. Workforce development was another area of focus, with ACHs investing in the training and hiring of care navigators and recovery coaches. ACHs also assisted in using HIT/E systems to support care transitions.

Despite these efforts by ACHs, we found relatively few measurable improvements in most measures in our quantitative analysis. Outside of small decreases in homelessness, enrollees discharged from hospitals had no other observed improvements between the baseline and 2022. Enrollees with criminal legal involvement did not experience any improvements over the observation period. On the other hand, we observed relatively few indications that quality or access worsened over the observation period. The main exceptions to this occurred among enrollees with criminal legal involvement, who experienced decreases in mental health treatment penetration and reductions in 7-day follow-up after ED visits for mental illness. Other results across this project

were generally not statistically significant, some of which may be due to the relatively small population size of target populations.

It is possible that, despite considerable efforts by the state of Washington to enhance care for transition populations, the complexity and multifaceted nature of challenges faced by individuals transitioning out of hospitals or correctional facilities may have posed formidable barriers to measurable improvements. Factors such as socioeconomic disparities, lack of access to ongoing support services, and underlying health issues could have contributed to the null results. Additionally, the time frame of the evaluation may not have allowed sufficient opportunity for the implemented interventions to manifest meaningful impacts.

Despite the limited quantitative progress observed, Project 2C represents considerable effort and investment by ACHs. The work to connect different sectors, such as healthcare and social services, and their investment in workforce development, including training care navigators and implementing HIT, marks meaningful steps towards system-wide improvements.

Health Improvement Project 2D

This chapter presents results of the summative evaluation of MTP Initiative 1 Health Improvement Project 2D, **"Diversion Interventions."**

We provide background on the topic area, then summarize the changes to care that Project 2D was designed to produce. Through key informant interviews and reviews of program documents collected during the evaluation period, we then describe project implementation through 2022. An analysis of health care claims data provides evidence about whether and how health outcomes changed for key populations through this initiative.

Background

Diversion interventions are intended to promote the appropriate use of emergency care services by increasing access to primary care and social services. These interventions support a person-centered care approach by ensuring that people with complex health care needs, such as co-occurring disorders, receive timely care in a setting best suited to their circumstances.

These interventions can have different approaches to how and where they interact with individuals. Some programs focus on redirecting people who use emergency services for non-emergent conditions to settings that can better address their comprehensive needs. Examples include patient education, increasing access to non-ED community clinics, and managed care models. These various strategies have been shown to reduce avoidable ED utilization and help control healthcare costs.[41]

Diversion interventions can also be designed to engage people with SUD or SMI, who also have criminal justice involvement, with services that address their behavioral health needs. Addressing these needs may result in a subsequent reduction in criminal justice involvement. Diversion programs may reduce the time participants spend in jail and facilitate connections to community-based services without increasing public safety risks.[42,43]

MTP Project Toolkit Guidance

The objective of Project 2D was to implement diversion strategies to promote more appropriate use of emergency care services and person-centered care through increased access to primary care and social services, especially for medically underserved populations. The MTP Project Toolkit identified Apple Health enrollees presenting at the ED for non-acute conditions, enrollees who access the emergency medical services (EMS) system for a non-emergent condition, and enrollees with mental health or SUD that come into contact with law enforcement as the target populations for this HIP.

The MTP Project Toolkit identified three potential approaches to diversion interventions: ED diversion, community paramedicine, and law enforcement-assisted diversion. We describe these approaches and their ACH requirements below.

- **Emergency department diversion approaches** do not require a specific model, but ACH implementations were required to include two elements. First, EDs must establish linkages to primary care providers as a prerequisite to notifying a person's primary care provider of the ED visit and establishing a care plan. Second, EDs must develop a process for identifying people with minor conditions who do not have a primary care provider to establish an appointment and relationship with a primary care provider. The MTP Toolkit referenced the "ER is for Emergencies-7 Best Practices" program as a potential approach to reduce avoidable ER use.

- **Community paramedicine models** allow paramedics to function outside their customary emergency response and transport roles, offering new types of community-based health care services that bridge primary care and emergency care. ACHs implementing community paramedicine work with first responders, emergency providers, and primary care providers. They develop protocols that may include, for example, transporting Apple Health enrollees with non-emergency needs to urgent care centers or patient-centered medical homes as alternatives to the ED.
- **The LEAD model**[44] focuses on people in contact with law enforcement. This model offers officers an alternative to booking people into jail for criminal activity that stems from unmet behavioral health needs, poverty, or both combined. ACH-supported implementation activities included engaging law enforcement and generating buy-in, such as obtaining commander-level support, providing trainings on trauma-informed care and cultural competencies, and establishing a community advisory group that included representation from community members, health care and social services, and community public safety leaders.

To support Project 2D efforts, HCA coordinated work with the Washington-designated health information exchange (HIE) platform, OneHealthPort. OneHealthPort was responsible for building and implementing infrastructure used for HIE and developing tools and services that supported broader provider access and utilization of HIE and clinical data.

Project 2D Implementation Evaluation

Participating ACHs

Participation in Project 2D was optional, and three ACHs selected it for implementation: NCACH, NSACH, and OCH (see Exhibit 9.1).

Exhibit 9.1. ACHs Participating in Project 2D, Diversion Interventions

* NCACH initially elected to participate in Project 2B but decided to close its Pathways Community HUB Program in June 2019.

Target Population Selection

In line with the MTP Project Toolkit, ACHs designated Apple Health enrollees and non-Apple Health enrollees accessing EDs and EMS for non-emergent conditions, and Apple Health enrollees and non-Apple Health enrollees with complex medical and social needs (e.g., enrollees with frequent contact with law enforcement, experiencing homelessness, and transitioning from jail) as the target populations.

Qualitative Methods

Sample. We examined Project 2D from the viewpoint of ACH leaders and ACH partner organizations. We conducted 11 interviews with ACH representatives, three to four per ACH, who were able to speak about Project 2D implementation. We interviewed executive directors and program managers who were purposively selected for their knowledge about contracts with partner organizations and their experience with Project 2D. We conducted interviews with eight leaders at medical partner organizations (e.g., primary care practices, Federally Qualified Health Centers [FQHCs], hospital systems) and seven interviews with leaders at behavioral health agencies to learn about their experiences working with their ACH on Project 2D.

Data Collection. We completed semi-structured interviews between May 2019 and May 2023. Interviews were conducted iteratively, and we interviewed ACH leaders before partner organization leaders, allowing our team to use what we learned from ACH leader interviews to inform questions we explored with later participants.

Analysis. We used a deductive approach, as we wanted to identify, categorize, and describe the implementation support strategies ACHs used for Project 2D and, to the extent possible, the specific changes ACH partner organizations made related to diversion interventions.

Limitations. Interviews with ACH leaders and program managers covered multiple topics related to Domain 1 and other HIPs. ACHs may have promoted interventions or provided additional implementation support not disclosed during interviews. Some aspects of the diversion interventions involved community-based organizations to implement these interventions, who were not interviewed as part of the evaluation design.

ACHs Provided Support to Partners for Project 2D

ACHs reported that they had:

Funded and organized trainings for clinicians, emergency response professionals, and community-based providers to support implementation. Trainings included information on Toolkit intervention models (e.g., ED diversion "ER is for Emergencies," community paramedicine), HIE and community information exchange (CIE) tools (e.g., Unite Us, PointClickCare, and Health Commons), and sharing information across clinical and community-based providers to support care coordination and procedures (e.g., Ambulance Documentation).

One behavioral health provider organization described using the LEAD model to reach people who were at risk for law enforcement involvement. They believed this outreach allowed them to divert people from inappropriate ED use and prevented arrests.

Funded or supported partners in acquiring health information technology/exchange systems to help redirect people from inappropriate emergency department use. A necessary component of ED diversion was an HIE platform that identified and tracked individuals who presented at the ED. These tools included patient registries and Emergency Department Information Exchange (EDIE) from PointClickCare, which was used across regions and could be sponsored by MCOs or ACHs. Olympic Community of Health used a regional community information exchange, Unite Us. These tools were used to identify and monitor people who frequently accessed EDs, and to communicate and coordinate care among clinical and community-based providers.

Leveraged existing population health management systems to enhance coordinated care between providers. Systems like PointClickCare and the Pathways Care Coordination System facilitated care coordination and information sharing across providers.

NSACH leveraged their Project 2B Pathways Community HUBs to support care coordination and referrals related to emergency department use. HUBs were centralized entities that contracted with care coordinating agencies that employed community health workers (CHWs). Once enrollees were connected to the HUB, CHWs assessed their needs and helped connect them with the right level of services.

Other Factors May Have Influenced Project 2D Implementation

Two of the three ACHs that selected this project area worked on emergency department diversion under the State Innovation Model grant that preceded MTP. Strategies for this project relied on collaborative partnerships with cross-sector organizations such as clinical and community-serving organizations, including hospitals, health systems, FQHCs, EMS agencies, fire departments, and criminal justice systems (e.g., prisons and jails). These ACHs had a head start with established relationships and began working on this project area before MTP.

ACHs working on Project 2D aligned diversion interventions with other health improvement projects that promoted coordinated care between clinical and community providers. This includes Projects 2B- Community-based Care Coordination, 2C - Transitional Care, and 3D – Chronic Disease Prevention and Control. ACHs aligned their efforts by focusing on similar target populations (e.g., Projects 2C and 2D) or by selecting models supporting multiple project goals (e.g., Project 2B).

ACH efforts to promote HIE interoperability were complicated by the use of multiple systems across partnering organizations. A key element in sharing information between partnering providers was having interoperable HIE. However, partnering organizations were using different systems. The State Medicaid HIT Plan promoted a Clinical Data Repository for authorized providers to view patient data (e.g., OneHealthPort). However, clinical and community-based providers who were not using a certified electronic health record (EHR) could not access and utilize this platform to coordinate care and exchange information with other organizations involved in patient care. ACHs helped partners obtain HIE systems (e.g., PointClickCare or Care Coordination Systems [tool used for Pathways Community HUB]) or tried to establish a system in their region (e.g., Health Commons and Unite Us). However, these systems required financial investment and presented challenges, including a lack of HIPAA compatibility or barriers to integrating with existing EHRs. Information sharing across provider organizations remains a challenge.

In addition to the factors outlined here, Chapter 14 describes cross-cutting findings that impacted multiple HIPs.

Quantitative Evaluation Approach

Because Health Improvement Project 2D was optional for ACHs, we compared the outcomes of Apple Health enrollees in ACHs that participated in Project 2D to those in ACHs that did not. Specifically, our quantitative analysis of Project 2D used a difference-in-differences approach to compare outcome changes among individuals residing in ACHs that selected this HIP to outcome changes among individuals residing in other ACHs. Activities in other non-participating ACH regions, such as introducing a similar program or other interventions that could apply to our target populations, may affect the difference-in-differences estimates. However, the presence of these interventions does not constitute a bias if such changes reasonably represent activities that Project 2D ACHs would have undertaken in the absence of the project.

We estimated three types of changes. First, we measured changes in outcomes from the pre-intervention period, which we refer to as "baseline," (January 2017-December 2018) to the peak COVID-19 PHE years, "peak PHE

years," (January 2020-December 2021), recognizing that these years might be the most disrupted by the COVID-19 PHE. Second, we measured changes in outcomes from the baseline period to 2022, the final year of our evaluation of the MTP demonstration (January 2022-December 2022), and the year when the most disruptive impacts of the COVID-19 PHE may have dissipated. Finally, we measured changes between the peak PHE years and 2022, which may indicate resilience and recovery as the health system emerged from the PHE. We adjusted for regional differences in Apple Health enrollees' age, gender, urban and rural residence, and a limited set of Chronic Illness and Disability Payment System (CDPS) risk indicators that could otherwise explain observed differences across regions. See Appendix B for methodological details.

Target Populations. Using the populations that ACHs described as intended beneficiaries of Project 2D as a guide, we focused our analysis on two specific populations.

1. People with three or more ED visits in any rolling annual period within the measurement year and the prior year
2. People with five or more ED visits in any rolling annual period within the measurement year and the prior year

While there was variation across the three participating ACHs in the scale or approach of their diversion interventions, each of the participating ACHs reported a focus on reducing ED utilization among people who were frequent users of emergency care services.

Summative Evaluation Results

We present the results of our evaluation of Health Improvement Project 2D, "Diversion Interventions" below. These results reflect changes from the baseline period, 2017-2018, through the peak PHE years, 2020-2021, and the final year of the evaluation, 2022.

Outcomes are presented for the two populations of interest: (1) people with three or more ED visits in any rolling annual period within the measurement year and the prior year; and (2) people with five or more ED visits in any rolling annual period within the measurement year and the prior year. A guide to reading results describes how to interpret tables (see Chapter 5, How to Read this Section: Health Improvement Projects). The Data Appendix displays changes in outcomes for the two target populations across all nine ACHs.

Analysis 1: People with Three or More ED Visits

We observed relatively few statistically significant changes in most outcomes between the baseline and 2022 (Exhibit 9.2). Rates of well-care visits for individuals ages 3-21 moderately decreased from baseline to 2022 among individuals residing in Project 2D ACHs compared to individuals residing in other ACHs (-2.1%). The 7-day follow-up rate after an ED visit for mental illness worsened (-5.0%), but the 7-day follow-up rate after an ED visit for alcohol or drug use improved (+3.0%).

In contrast to the lack of significant changes in most outcome measures, spending measures generally improved. Most spending measures for people with three or more ED visits declined over the entire observation period among individuals residing in Project 2D ACHs, with differential declines mostly occurring between the baseline and peak PHE years. Between the baseline and 2022, there were decreases in total spending (-$65 PMPM), total spending excluding pharmacy (-$63 PMPM), behavioral health care (-$87 PMPM), and SUD care (-$93 PMPM), although only the last two spending measures were statistically significant.

Exhibit 9.2. Change in Outcomes for People with Three or More ED Visits

Metrics Grouped by Domain		Treated Baseline	Comparison Baseline	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D1: Social Determinants of Health						
Homelessness	[3] ↓	26.3%	27.2%	-0.4%	0.1%	0.5%
Arrest Rate (Age 18 to 64)	[1] ↓	19.3%	18.2%	0.2%	-0.4%	-0.7%
D2: Access to Primary and Preventive Care						
Adults' Access to Primary Care	[0]	93.2%	91.0%	0.1%	0.6%	0.5%
Well-Care Visits Ages 3 to 21	[2]	44.4%	46.1%	-0.9%	-2.1%	-1.2%
D5: Mental Health Care						
Mental Health Treatment Penetration	[3]	57.8%	57.1%	-1.0%	0.2%	1.2%
30-Day Hospital Readmission for a Psychiatric Condition	[0] ↓	17.3%	17.6%	1.9%	-0.3%	-2.2%
7-Day Follow-Up After ED Visit for Mental Illness	[3]	70.2%	63.9%	-5.0%*	-5.0%	0.0%
30-Day Follow-Up After ED Visit for Mental Illness	[3]	79.0%	75.0%	-2.8%	-1.1%	1.7%
D8: Emergency Department, Hospital, and Institutional Care Use						
Ratio of Home and Community-Based Care Use to Nursing Facility Use	[0]	94.3%	95.1%	-0.6%	-0.6%	0.0%
Hospital Readmission within 30 Days	[3] ↓	19.5%	20.7%	0.2%	-0.9%	-1.1%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	343.5	349.1	-5.5	-5.2	0.6
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	242.9	245.3	2.0	11.5	9.2
D9: Substance Use Disorder Care						
Substance Use Disorder Treatment for People with Treatment Need	[3]	37.5%	32.9%	-0.6%	-1.4%	-0.8%
7-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	24.9%	26.7%	1.3%	3.0%	1.7%
30-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	40.6%	40.3%	0.8%	2.7%	1.8%
D11: Spending						
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$1,320	$1,218	-$140*	-$65	$75*
Total Spending Per Member, Per Month	[0] ↓	$1,513	$1,405	-$128*	-$63	$66
LTSS Spending Per Member, Per Month	[0] ↓	$62	$94	-$28*	-$6	$22
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$426	$297	-$98*	-$87*	$12
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$1,087	$1,107	-$29	$24	$54
Substance Use Disorder Spending Per Member, Per Month	[0] ↓	$267	$123	-$103*	-$93*	$10

Analysis 2: People with Five or More ED Visits

Among enrollees with five or more ED visits, Project 2D was not associated with significant changes across most measures (Exhibit 9.3). The few significant results in these domains did not change in a uniform direction. The rate of adults' access to primary care increased slightly from baseline to 2022 among individuals residing in Project 2D ACHs compared to individuals residing in other ACHs (+1.3%). Between baseline and the peak PHE years, among individuals residing in Project 2D ACHs compared to individuals residing in other ACHs, the 7-day follow-up rate after an ED visit for mental illness worsened (-6.9%), and the overall ED visit rate declined (-14.4 visits per 1,000 member months).

All spending measures declined between baseline and the peak PHE years among individuals with five or more ED visits residing in Project 2D ACHs compared to individuals with five or more ED visits residing in other ACHs. However, differential declines in spending were only observed over the entire observation period for two

measures, behavioral health care (-$93 PMPM), and SUD care (-$129 PMPM). Notably, among individuals residing in Project 2D ACHs compared to individuals residing in other ACHs, differential increases in other spending metrics were observed between peak PHE years and 2022, which attenuated the decreases observed from baseline to peak PHE years.

Exhibit 9.3. Change in Outcomes for People with Five or More ED Visits

Metrics Grouped by Domain		Treated Baseline	Comparison Baseline	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D1: Social Determinants of Health						
Homelessness	[3] ↓	32.9%	34.5%	-0.6%	0.5%	1.1%
Arrest Rate (Age 18 to 64)	[1] ↓	21.8%	21.0%	-0.2%	-0.7%	-0.5%
D2: Access to Primary and Preventive Care						
Adults' Access to Primary Care	[0]	94.7%	92.9%	0.7%	1.3%*	0.6%
Well-Care Visits Ages 3 to 21	[2]	39.0%	42.5%	0.7%	-0.5%	-1.0%
D5: Mental Health Care						
Mental Health Treatment Penetration	[3]	60.6%	60.2%	0.2%	0.2%	0.0%
30-Day Hospital Readmission for a Psychiatric Condition^	[0] ↓	20.2%	20.4%	2.6%	1.7%	-1.0%
7-Day Follow-Up After ED Visit for Mental Illness	[3]	71.1%	63.8%	-6.9%*	-4.2%	2.8%
30-Day Follow-Up After ED Visit for Mental Illness	[3]	79.6%	75.6%	-3.1%	-0.4%	2.7%
D8: Emergency Department, Hospital, and Institutional Care Use						
Ratio of Home and Community-Based Care Use to Nursing Facility Use^	[0]	94.9%	95.2%	0.4%	-0.6%	-1.1%
Hospital Readmission within 30 Days	[3] ↓	23.5%	24.4%	0.2%	-0.5%	-0.8%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	512.9	522.6	-14.4	-11.7	3.6
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	307.5	312.8	3.0	10.2	6.7
D9: Substance Use Disorder Care						
Substance Use Disorder Treatment for People with Treatment Need	[3]	38.2%	34.0%	-0.7%	-1.6%	-0.9%
7-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	26.1%	28.0%	0.7%	2.7%	2.1%
30-Day Follow-Up After ED Visit for Alcohol/Drug Use	[3]	42.7%	42.5%	-0.3%	3.2%	3.4%
D11: Spending						
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$1,846	$1,737	-$210*	-$65	$148*
Total Spending Per Member, Per Month	[0] ↓	$2,094	$1,972	-$214*	-$98	$120
LTSS Spending Per Member, Per Month	[0] ↓	$79	$130	-$40*	-$10	$29
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$604	$455	-$130*	-$93*	$39
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$1,490	$1,517	-$84	-$4	$81
Substance Use Disorder Spending Per Member, Per Month	[0] ↓	$376	$188	-$147*	-$129*	$17

Conclusion

Project 2D was not associated with significant changes across most measures, although we observed significant decreases in several expenditure measures for individuals in both of our target populations. Most differential decreases occurred between baseline and the peak PHE years, with some decreases remaining significant through 2022. Differential decreases in spending were larger for individuals with five or more ED visits compared to individuals with three or more ED visits. Differential reductions in the ED visit rate were also greater for individuals with higher ED utilization.

Several factors may have influenced the mixed outcomes associated with this project. While some evidence exists to support diversion models, these efforts have a more limited evidence base than some activities in other HIPs. Thus, at the onset of these projects in 2019, ACHs may have been testing models and determining the best ways to meet enrollee and partner needs. In addition, some efforts by ACHs, such as the LEAD model, focused on people who encounter law enforcement, a population we did not evaluate because of data limitations. Finally, multiple HIE systems across partnering organizations complicated ACH efforts to promote interoperability. Challenges in sharing information between partnering providers may have limited the reach of Project 2D efforts.

Health Improvement Project 3A

This chapter presents results of the summative evaluation of MTP Initiative 1 Health Improvement Project 3A, **"Addressing the Opioid Use Public Health Crisis."** We present additional evaluation findings pertaining to Washington State's SUD waiver amendment in Chapter 17.

We provide background on the topic area, then summarize the changes to care that Project 3A was designed to produce. Through key informant interviews and reviews of program documents collected during the evaluation period, we then describe project implementation through 2022. We also provide results from analyses of health care claims data to inform whether and how health outcomes changed for key populations through this initiative.

Background

Opioid use is a pressing national public health crisis. Fatal opioid overdose rates have nearly quadrupled since 2010, primarily driven by synthetic opioids other than methadone, like fentanyl.[45]

A multifaceted, multi-sector approach is needed to fully address the opioid epidemic. Efforts to improve access to care, destigmatize treatment, and increase the use of evidence-based practices, such as expanding the use of FDA-approved medications (e.g., methadone, buprenorphine, naltrexone), are critical.

Although there is extensive evidence supporting the use of medications to treat opioid use disorder (MOUD), they can be difficult to access. For example, until December 2022, medical providers who wanted to prescribe buprenorphine had to apply for the SUD demonstration waiver ("X-waiver") under the Drug Addiction Treatment Act of 2000, which required specific addiction and pharmacology training.46 This waiver requirement was removed at the end of 2022, six months before the end of the MTP waiver period. Although the removal of this requirement reduces provider burden to prescribe buprenorphine, other barriers to access remain. Provider stigma around MOUD persists, with some providers reluctant to interact with patients with opioid use disorder (OUD). Providers also express concerns about potential diversion of these medications as well as a lack of knowledge and training on how to treat OUD.47 Sustained policy attention and funding to address these barriers are still needed to ensure consistent, equitable access to MOUD.

Given that the opioid epidemic disproportionately affects Medicaid enrollees, state Medicaid programs play important roles in identifying and implementing strategies to prevent and treat OUD.

MEDICATIONS FOR OPIOID USE DISORDER

Medications for addiction disorders may help address the need for better treatment. Psychiatry has been transformed by the introduction of drug therapies, but the use of medications for substance use treatment has seen slower uptake, even though medications are now seen as the gold standard for care.

There are three FDA-approved medications used for opioid dependence: methadone, naltrexone, and buprenorphine. Methadone differs slightly from other medications because it must be dispensed by an opioid treatment program. A 2009 Cochrane review concluded that methadone treatment was effective in reducing opioid use, opioid use-associated transmission of infectious disease, and crime when compared to placebo with psychosocial treatment.[38]

Buprenorphine is a newer drug and easier to administer than methadone, with similar effectiveness. A 2014 Cochrane review comparing buprenorphine, methadone, and placebo found no differences in opioid-positive drug tests or self-reported heroin use when treating with methadone or buprenorphine.[39]

Naltrexone is also a newer drug, available in oral and injectable form; the evidence base to support naltrexone as effective in the treatment for opioid use disorder is less developed than that for methadone or buprenorphine, although the injectable version appears to be more effective.[40,41]

The Centers for Disease Control and Prevention recommends that patients with opioid use disorder receive evidence-based treatment (usually medication-assisted treatment [MAT] with buprenorphine or methadone maintenance therapy in combination with behavioral therapies), with oral or long-acting injectable naltrexone also available for consideration for nonpregnant adults.[42]

MTP Project Toolkit Guidance

The objective of Project 3A was to reduce opioid-related morbidity and mortality through strategies that target prevention, treatment, and recovery supports. The MTP Project Toolkit identified Apple Health enrollees, including youth, who use, misuse, or abuse prescription opioids or heroin as the target population for this HIP.

ACHs' strategies for Project 3A were required to focus on the spectrum of opioid-related outcomes, including prevention of opioid use and misuse, treatment of OUD, overdose prevention, and recovery. Prevention strategies listed in the MTP Toolkit use education to raise awareness and knowledge among providers and community members of all ages. Some specific activities are listed below.

Clinically-focused activities and education

- Promote best practices for prescribing opioids for acute and chronic pain
- Build provider capacity to recognize signs of misuse and link patients to treatment resources
- Expand access to MOUD, particularly in the criminal justice system
- Develop programs to treat pregnant women with OUD
- Provide technical assistance and overdose education to providers
- Provide peer and other recovery support services designed to improve treatment access and retention and support long-term recovery

Community-focused activities and education

- Raise awareness and knowledge about the possible adverse effects of opioid use (e.g., by collaborating with the Center for Opioid Safety Education and other partners)
- Prevent opioid initiation and misuse, for example, by using school-based programs to focus on youth or promoting safe storage and appropriate disposal of opioids
- Increase the capacity of harm reduction programs such as syringe exchange programs, and
- Expand the use of naloxone to treat overdoses

ACHs could build on a variety of promising practices and evidence-supported strategies described in the MTP Project Toolkit. The Toolkit included guidelines[48–50] and two plans[51,52] related to statewide efforts to reduce opioid use and promote substance use prevention and improved mental health.

STATEWIDE OPIOID RESPONSE PLAN

In 2016, Governor Inslee issued an executive order designed to bring together state agencies, local public health organizations, law enforcement, Tribal governments, and other partners to act on opioids. The Washington State Interagency Opioid Working Plan45 outlined the strategies and actions that state agencies would implement.

The plan included four priority goals:

- Prevent opioid misuse and abuse,
- Identify and treat OUD,
- Reduce morbidity and mortality from OUD, and
- Use data and information to detect opioid misuse/abuse, monitor morbidity and mortality, and evaluate interventions.

Project 3A Implementation Evaluation

Participating ACHs

All ACHs were required to participate in Project 3A.

Target Population Selection

Based on community needs assessments and stakeholder feedback, ACHs identified a wider set of target populations than the MTP Project Toolkit, including Apple Health enrollees with or at risk for OUD. They also chose other priority populations, including youth, individuals who were incarcerated, homeless, pregnant and parenting women, individuals with co-occurring chronic conditions, individuals who may benefit from MOUD, and those living in rural areas with limited access to OUD treatment.

Qualitative Methods

Sample. We examined Project 3A from the viewpoint of ACH leaders and ACH partner organizations. We conducted 39 interviews with ACH representatives, two to six per ACH, who were able to speak about Project 3A implementation. We interviewed executive directors, deputy directors, chief operating officers, program managers, clinical or opioid programs directors, and ACH board members who were purposively selected for their knowledge about contracts with partner organizations and their experience with Project 3A. We conducted interviews with 34 leaders at medical partner organizations (e.g., primary care practices, Federally Qualified Health Centers [FQHCs],

hospital systems) and 20 interviews with leaders at behavioral health agencies to learn about their experiences working with their ACH on Project 3A.

Data Collection. We completed semi-structured interviews between May 2019 and June 2023. Interviews were conducted iteratively, and we interviewed ACH leaders before partner organization leaders, allowing our team to use what we learned from ACH leader interviews to inform questions we explored with later participants.

Analysis. We used a deductive approach, as we wanted to identify, categorize, and describe the implementation support strategies ACHs used for Project 3A and, to the extent possible, the specific changes ACH partner organizations made related to addressing the opioid crisis.

Limitations. Interviews with ACH leaders and program managers covered multiple topics related to Domain 1 and other HIPs. ACHs may have promoted interventions or provided additional implementation support not disclosed during interviews. While this project was required for ACHs, they may not have required their partner organizations to select it.

ACHs Provided Support to Partners for Project 3A

ACHs reported that they had:

Supported adoption of opioid prescribing guidelines to prevent opioid use and misuse. ACHs supported the adoption of clinician-prescribing guidelines for pain management by making recommendations, assisting with workflows, and keeping partners informed about updates. By late 2019, ACHs had supported their clinical partners in all regions to implement workflow changes in adherence to the Washington State Opioid Prescribing Guidelines for practitioners, Centers for Disease Control and Prevention Guidelines for Prescribing Opioids for Chronic Pain, and American Medical Association Safe Prescribing Practices.

Fostered community discussion about prevention, treatment, overdose response, and recovery. ACH convenings for partnering organizations around opioid use helped establish relationships and community discussions about opioid use prevention, treatment, overdose response, and recovery. ACHs educated their communities at conferences and symposiums to increase awareness and reduce stigma.

Helped establish cross-sector relationships and referrals to treatment. ACHs brought together cross-sector partners, including primary care, behavioral health, community-based organizations, education, law enforcement, and MOUD providers. ACHs organized gatherings such as opioid work groups and learning collaboratives where partners came together to connect and collaborate on strategies to address opioid use.

For example, a participant from a behavioral health provider organization described an ACH-organized meeting where opioid workgroup partners and a county's health department officials discussed concurrent challenges with reporting opioid overdoses due to confidentiality rules and how, without being able to report the overdose, a person may not seek treatment. The result of this ACH-facilitated discussion allowed EDs to report patients presenting with an opioid overdose to local OUD treatment providers, creating a natural referral to treatment.

Helped partners apply for grants to support behavioral health and medication access. Provider organizations sometimes need additional funding to support their project goals. ACHs helped their partners apply for a variety of grants to support work addressing opioid use. A primary care partner reported that they would not have been able to apply for a Health Resources and Services Administration (HRSA) grant without the ACH's support, and the grant that they received allowed them to hire a much-needed SUD counselor.

Worked with partners to expand opioid overdose death prevention. ACHs worked to increase naloxone availability through syringe exchange programs and helping community partners and Tribes acquire naloxone supplies to

distribute. A behavioral health provider organization in the SWACH region reported an innovative example of improving naloxone access by using ACH funds to develop a free public vending machine to help deter overdose deaths.

Funded technical support and training to expand the opioid treatment and recovery workforce. Workforce shortages of people providing services to those with OUD existed across the state. ACHs assisted with recruitment and funding of technical support for MOUD prescribers and peer recovery coach training. When the X-waiver requirement was still in place, ACHs funded training to increase the number of waivered providers. Finally, ACHs provided technical assistance to train and support partnering organizations in adopting the University of Washington's Six Building Blocks model, a team-based care for medication management.

Leveraged the community-based care coordination model to connect people with opioid use disorder to treatment and recovery supports if they were also implementing Project 2B, Pathways Community HUBs. The Pathways Community HUB model supported care coordination for people with SUD, including OUD, who were identified in community-based settings, and helped connect people to social and clinical SUD services. A partnering provider organization described how connections and referral networks helped the hub connect people to MAT.

Other Factors May Have Influenced Project 3A Implementation

Efforts to address opioid use across the state were already underway before MTP began. ACH efforts were aligned with the Washington State Interagency Opioid Working Plan, which included a set of goals designed by multidisciplinary stakeholders that started in 2016. In most regions, efforts to address opioid use, including the development of cross-sector coalitions and county workgroups, began prior to MTP, and ACHs intentionally focused their efforts on advancing this ongoing regional work.

Project 3A goals and strategies were also aligned with the aims of other grants. ACHs' partnering organizations received funds from the Substance Abuse and Mental Health Services Administration (SAMHSA), HRSA, State Opioid Response grant program, and State Targeted Response to the Opioid Crisis grants to address opioid use prior to and during MTP.

Workforce shortages and stigma limited the number of MOUD prescribers. Although the ACHs funded technical support and training to address statewide MOUD prescriber shortages, ACH key informants reported continued stigma, provider discomfort, and resistance to MOUD among abstinence-only providers. Before ACHs could begin Project 3A implementation, they had to address provider resistance to MOUD. Negotiating with providers with differing views on OUD treatment and building trust across different advocacy and treatment groups took time, which may have delayed connecting more patients to MOUD.

ACH partners experienced challenges accessing consistent naloxone supplies, a crucial aspect in preventing opioid overdose death. ACH efforts aimed to make naloxone more widely available in their regions to prevent opioid overdose deaths. During 2019, naloxone was in short supply, potentially impeding impeded access to this overdose-preventing treatment.

In addition to the factors outlined here, Chapter 14 describes cross-cutting findings that impacted multiple HIPs.

Quantitative Evaluation Approach

Since participation in Project 3A was mandatory for all ACHs, there was not a suitable comparison group available. We assessed changes among enrollees of all ACH regions using pre-post analysis.

We estimated three types of changes. First, we measured changes in outcomes from the pre-intervention period, which we refer to as "baseline," (January 2017-December 2018) to the peak COVID-19 PHE years, "peak PHE years," (January 2020-December 2021), recognizing that these years might be the most disrupted by the COVID-19 PHE. Second, we measured changes in outcomes from the baseline period to 2022, the final year of our evaluation of the MTP demonstration (January 2022-December 2022), and the year when the most disruptive impacts of the COVID-19 PHE may have dissipated. Finally, we measured changes between the peak PHE years and 2022, which may indicate resilience and recovery as the health system emerged from the PHE. We adjusted for regional differences in Apple Health enrollees' age, gender, urban and rural residence, and a limited set of Chronic Illness and Disability Payment System (CDPS) risk indicators that could otherwise explain observed differences across regions. See Appendix B for methodological details.

Target Populations. Using the populations that ACHs described as intended beneficiaries of Project 3A as a guide, we focused our analysis on two specific populations.

1. All Apple Health enrollees ages 19-64
2. People with OUD, defined as the presence of an OUD diagnosis (ICD10 code F11.XXX) within the last 24 months

We selected the first population to analyze measures that test efforts to prevent opioid misuse, including, for example, the percentage of enrollees who are prescribed high-dose chronic opioid therapy. For our second study population, we analyzed measures related to efforts to treat OUD, including, for example, the percentage of patients with OUD who received medications.

Summative Evaluation Results

We present the results of our evaluation of Health Improvement Project 3A, "Addressing the Opioid Use Public Health Crisis" below. These results reflect changes from the baseline period, 2017-2018, through the peak PHE years, 2020-2021, and the final year of the evaluation, 2022.

Outcomes are presented for the two populations of interest: (1) all Apple Health enrollees ages 19-64; and (2) enrollees with OUD. A guide to reading results describes how to interpret tables (see Chapter 5, How to Read this Section: Health Improvement Projects). The Data Appendix displays changes in outcomes for the two target populations across all nine ACHs.

Analysis 1: All Apple Health Enrollees Ages 19-64

Across all Apple Health enrollees ages 19-64, most measures in the opioid prescribing and OUD treatment domain exhibited statistically significant improvements between baseline and 2022 (Exhibit 10.1). Over the observation period, the percentage of patients prescribed chronic concurrent opioids and sedatives declined (-6.2%), and the rate of OUD treatment for people with treatment need increased (+11.5%). The percentage of patients prescribed high-dose chronic opioid therapy (>90 mg) also decreased (-3.4%) from baseline to 2022. Most of the findings in this domain were driven by changes observed from baseline to the peak PHE years.

Measures in mental health care and hospital and institutional care use had significant changes between baseline and 2022 but did not change in a uniform direction. Some measures of care use decreased over the observation period, such as ED visit rate (-9.6 visits per 1,000 member months) and acute hospital use (-3.1 visits per 1,000 members), while others, like 30-day hospital readmission for a psychiatric condition (+2.3%), increased.

Expenditures generally increased between baseline and 2022, with total spending increasing by $16 PMPM. However, behavioral health spending and spending on SUD services decreased between baseline and 2022 (-$29 PMPM and -$13 PMPM, respectively). measures also had both increases and decreases over the observation period. Other measures, such as non-behavioral health care spending (+$86 PMPM), showed significant increases.

Exhibit 10.1. Change in Outcomes for All Apple Health Enrollees Ages 19-64

Metrics Grouped by Domain		Baseline	PHE	2022	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D5: Mental Health Care							
30-Day Hospital Readmission for a Psychiatric Condition	[0] ↓	13.2%	16.4%	15.8%	2.5%*	2.3%*	-0.1%
D8: Emergency Department, Hospital, and Institutional Care Use							
Ratio of Home and Community-Based Care Use to Nursing Facility Use	[0]	93.7%	95.6%	95.9%	1.7%*	2.0%*	0.3%
Hospital Readmission within 30 Days	[3] ↓	13.9%	15.3%	15.3%	0.8%*	0.9%*	0.1%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	66.1	52.3	49.7	-9.3*	-9.6*	-0.4
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	68.4	54.7	47.3	-1.8*	-3.1*	-1.4*
D10: Opioid Prescribing and Opioid Use Disorder Treatment							
People with an Opioid Prescription >= 50mg MED	[1] ↓	31.3%	31.6%	31.0%	0.1%	-0.6%	-0.7%
People with an Opioid Prescription >= 90mg MED	[1] ↓	14.2%	11.7%	11.1%	-2.7%*	-3.4%*	-0.6%
People with an Opioid Prescription who were Prescribed a Sedative	[1] ↓	21.2%	16.5%	15.4%	-5.0%*	-6.2%*	-1.2%*
Opioid Use Disorder Treatment for People with Treatment Need	[3]	43.8%	56.3%	56.2%	11.8%*	11.5%*	-0.3%
D11: Spending							
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$481	$462	$445	$16*	$32*	$18*
Total Spending Per Member, Per Month	[0] ↓	$599	$594	$576	$36*	$57*	$23*
LTSS Spending Per Member, Per Month	[0] ↓	$66	$86	$93	$22*	$34*	$13*
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$108	$80	$73	-$24*	-$29*	-$5*
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$491	$514	$503	$60*	$86*	$28*
Substance Use Disorder Spending Per Member, Per Month	[0] ↓	$54	$40	$37	-$11*	-$13*	-$2*

Analysis 2: People with Opioid Use Disorder

All measures in the opioid prescribing and OUD treatment domain exhibited statistically significant improvements between baseline and 2022 for people with OUD (Exhibit 10.2). During this time, the percentage of patients prescribed chronic concurrent opioids and sedatives declined (-4.5%) and the rate of OUD treatment for people with treatment need increased (+12.7%). The percentages of patients prescribed high-dose chronic opioid therapy more than 50 mg (-4.9%) and more than 90 mg (-6.4%) also decreased from baseline to 2022. The findings in this domain were driven by changes observed from baseline to the peak PHE years.

Measures in the domains of mental health care and hospital and institutional care use all had significant changes between baseline and 2022 for people with OUD but did not change in a uniform direction. For example, the rate of 30-day hospital readmission for a psychiatric condition (+5.1%), increased, as did the rate of hospital readmission within 30 days (+2.7%). The rates of ED visits (-15.3 visits per 1,000 member months) and acute hospital use (-6.9 visits per 1,000 members) decreased over the observation period.

Total PMPM expenditures did not change between baseline and 2022. Behavioral health spending and spending on SUD services exhibited large decreases between baseline and 2022 (-$107 PMPM and -$98 PMPM, respectively). Those reductions were driven primarily by large decreases in spending leading up to the PHE, with spending in those categories increasing between the peak PHE years and 2022.

Exhibit 10.2. Change in Outcomes for People with Opioid Use Disorder

Metrics Grouped by Domain		Baseline	PHE	2022	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D5: Mental Health Care							
30-Day Hospital Readmission for a Psychiatric Condition	[0] ↓	16.8%	21.5%	21.4%	4.3%*	5.1%*	0.8%
D8: Emergency Department, Hospital, and Institutional Care Use							
Ratio of Home and Community-Based Care Use to Nursing Facility Use	[0]	92.9%	94.9%	95.3%	1.8%*	2.1%*	0.4%
Hospital Readmission within 30 Days	[3] ↓	19.6%	21.1%	21.5%	1.8%*	2.7%*	0.9%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	168.9	136.4	133.1	-15.3*	-15.3*	-0.1
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	205.0	159.1	152.9	-6.9*	-6.9*	-0.0
D10: Opioid Prescribing and Opioid Use Disorder Treatment							
People with an Opioid Prescription >= 50mg MED	[1] ↓	48.1%	45.7%	44.1%	-3.3%*	-4.9%*	-1.6%
People with an Opioid Prescription >= 90mg MED	[1] ↓	24.2%	19.5%	18.5%	-5.6%*	-6.4%*	-0.8%
People with an Opioid Prescription who were Prescribed a Sedative	[1] ↓	24.9%	21.0%	21.1%	-4.3%*	-4.5%*	-0.1%
Opioid Use Disorder Treatment for People with Treatment Need	[3]	47.2%	60.8%	60.9%	12.5%*	12.7%*	0.1%
D11: Spending							
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$1,599	$1,305	$1,373	-$101*	$13	$113*
Total Spending Per Member, Per Month	[0] ↓	$1,865	$1,572	$1,638	-$80*	$33	$112*
LTSS Spending Per Member, Per Month	[0] ↓	$66	$75	$89	$24*	$40*	$17*
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$750	$583	$623	-$153*	-$107*	$44*
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$1,115	$989	$1,014	$74*	$141*	$68*
Substance Use Disorder Spending Per Member, Per Month	[0] ↓	$625	$473	$520	-$148*	-$98*	$47*

Conclusion

All nine ACHs participated in Project 3A and contributed to the state's goals of opioid prevention, treatment, and recovery. Our summative evaluation findings show progress in some areas, most notably in reductions in OUD prescribing and increases in treatment between the baseline period and the peak PHE years. Findings for OUD prescribing and treatment measures tended to be more pronounced for the second target population, people with OUD, than for the first target population, all Apple Health-enrolled adults. These results are understandable due to the focus of Project 3A efforts. Overall, these results are aligned with the goals of 3A and other efforts by the state to address the opioid epidemic.

Health Improvement Project 3B

This chapter presents results of the summative evaluation of MTP Initiative 1 Health Improvement Project 3B, **"Reproductive and Maternal/Child Health."**

We provide background on the topic area, then summarize the changes to care that Project 3B was designed to affect. Through key informant interviews and reviews of program documents collected during the evaluation period, we then describe project implementation through 2022. We also provide results from analyses of health care claims data to inform whether and how health outcomes changed for key populations through this initiative.

Background

Mothers and children in the United States have higher mortality rates than those in similar countries, and lower-income mothers and children typically experience worse health than their higher-income counterparts. The Medicaid program is a major source of coverage for children and their parents and can improve the well-being of these populations. In 2021, 41 percent of births in the United States were covered by Medicaid,53 and 39 percent of all children had coverage through Medicaid and the Children's Health Insurance Program (CHIP).54 Improvements in the Medicaid program are important levers to improve the health outcomes of both parents and children.

Specific efforts to improve maternal and child health may include improving prenatal and postpartum care, equipping expecting families with information on healthy pregnancies, increasing the number of well-child visits, and increasing child vaccination rates.

MTP Project Toolkit Guidance

The objective of Project 3B was to ensure that women have access to high-quality reproductive health care and promote the health and safety of Washington's children. The MTP Project Toolkit identified Apple Health enrollees of reproductive age, pregnant persons, and parents of children ages 0-17 as target populations for this HIP.

All participating ACHs were required to compile a partnering provider list, select an evidence-based approach and target population, develop guidelines and procedures for the intervention, and offer training to participating providers.

For ACHs that chose to participate in Project 3B, the MTP Project Toolkit specified three potential approaches, described below.

- **Centers for Disease Control and Prevention (CDC)-recommended strategies to improve women's health and promote healthy pregnancies.**[55] These included smoking cessation or daily folic acid supplementation.
- **Home visiting models for high-risk pregnant women.** Examples of federally recognized models included the Nurse-Family Partnership, which provides home visits from specially trained nurses to young women early in pregnancy and continues through a child's second birthday. Family Spirit, another home-visiting program developed by the Johns Hopkins Center for American Indian Health, uses a culturally specific, strengths-based curriculum for American Indians.
- **Approaches to improve well-child visit rates and childhood immunization rates.** The Project Toolkit identified two initiatives, Bright Futures and Stony Brooks Children's Hospital Enriched Medical Home Intervention, also

known as Keeping Families Healthy. Bright Futures is a national health promotion and prevention initiative led by the American Academy of Pediatrics. The core of the initiative is a set of recommendations for child care providers that detail activities at each child care visit (e.g., vision screening, immunizations) along with guidelines for the implementation of these activities. Keeping Families Healthy is a medical home intervention program launched by Stony Brook Children's Hospital in 2011. It offers free home visits by trained community health workers (CHWs) to children considered at risk of poor health outcomes. CHWs check a child's vaccination status during visits and provide educational material along with other services.

Project 3B Implementation Evaluation

Participating ACHs

Participation in Project 3B was optional, and three ACHs selected it for implementation: CPAA, NSACH, and OCH (see Exhibit 11.1).

Exhibit 11.1. ACHs Participating in Project 3B, Reproductive Health

These ACHs reported selecting 3B based on findings from their Regional Health Needs Inventories that noted reproductive and child health care gaps (e.g., lower childhood immunization rates and higher teen pregnancy rates than the state average at the time of project selection).

ACHs that did not select Project 3B indicated that the interventions and the measures associated with this project did not align well with other projects, possibly limiting their ability to make improvements.

Target Population Selection

In line with the MTP Project Toolkit, ACHs designated Apple Health enrollees of reproductive age, pregnant persons, parents of young children ages 0-3, and parents of children ranging from ages 0-17 as target populations.

Qualitative Methods

Sample. We examined Project 3B from the viewpoint of ACH leaders and ACH partner organizations. We conducted interviews with five ACH representatives: two from CPAA, one from NSACH, and two from OCH. We interviewed executive directors and program managers who were purposively selected for their knowledge about

contracts with partner organizations and their experience with Project 3B. We interviewed 10 leaders at partner organizations (e.g., primary care practices, Federally Qualified Health Centers [FQHCs], hospital systems) to learn about their experiences working with their ACH on Project 3B.

Data Collection. We completed semi-structured interviews between May 2019 and April 2021. Interviews were conducted iteratively, and we interviewed ACH leaders before partner organization leaders, allowing our team to use what we learned from ACH leader interviews to inform questions we explored with later participants.

Analysis. We used a deductive approach, as we wanted to identify, categorize, and describe the implementation support strategies ACHs used for Project 3B and, to the extent possible, the specific reproductive, maternal, and child health changes ACH partner organizations made.

Limitations. Interviews with ACH leaders and program managers covered multiple topics related to Domain 1 and other HIPs. ACHs may have promoted interventions or provided additional implementation support not disclosed during interviews.

ACHs Provided Support to Partners for Project 3B

ACHs reported that they had:

Provided technical assistance for integrating CDC-recommended strategies. CPAA and NSACH provided technical assistance for integrating the ten CDC evidence-based recommendations. These recommendations included implementation of One Key Question screening regarding pregnancy intentions, expanding access to long-active reversible contraception (LARC), and implementation of regional school-based health centers. ACHs supported partners by sharing the guidelines and offering support on best practices and strategies for primary care partner workflows.

- **Coordinated One Key Question training.** These ACHs coordinated training for clinical and community-based partners on the One Key Question method. One Key Question assessed women's pregnancy intentions and provided counseling accordingly, including a review of their contraception options when appropriate. The training modeled how to talk to patients about their pregnancy intentions and how to embed pregnancy intention screening into intake or electronic health record (EHR) systems to standardize screening.
- **Promoted access to Long-Acting Reversible Contraception (LARC) training.** CPAA and NSACH focused on increasing access to LARC for patients by connecting partners to Upstream, a reproductive health organization that trained providers on LARC insertion and removal. Participating clinical organizations contracted with Upstream and began offering LARC following the training.

Provided funding for home-visiting models for high-risk pregnant women. CPAA provided funding to help build the capacity of the Nurse-Family Partnership. This evidence-based home visiting model provides first-time, low-income mothers and their children with nurse-led home-based support and care. They also supported the expansion of established Nurse-Family Partnership programs by improving partners' awareness of and referrals to nurse home visitation programs.

Provided funding to improve well-child visit rates and childhood immunization rates. CPAA provided funding to contracted partners to implement the Bright Futures guidelines and adopt new EHR modules. This ACH funded primary care and pediatric partners to integrate the program's evidence-based practices into their EHR and clinical workflows to improve preventive care for children.

OCH encouraged partners to increase well-child checks. This ACH reported that one of their partners collaborated with MCOs to perform targeted outreach to increase well-child checks. This collaboration helped the practice identify attributed children who were overdue for a well-child visit. During the pandemic, when well-child check rates dropped, OCH developed the "Stay Strong, Olympic Region" campaign to enhance public education on the importance of maintaining preventive care and continuing to receive flu and well-child immunizations.

Facilitated education efforts on other topics that were not specified in the MTP Toolkit. Through learning collaboratives, conferences, and webinars, ACHs provided education on how to align Project 3B goals with other MTP projects. Examples of ACH education topics included prevention of substance use and child maltreatment, promoting depression screening for pregnant and postpartum women, creating safe spaces for LGBTQ clients, and addressing Adverse Childhood Experiences (ACEs).

Other Factors May Have Influenced Project 3B Implementation

Among the ACHs that selected this project, some of their contracted partner organizations prioritized other projects over Project 3B. Some partners perceived other MTP projects as more urgent (e.g., addressing behavioral health needs during the COVID-19 PHE). Partners also perceived greater statewide attention and interest in care integration and behavioral health care, which was more directly related to other project areas (e.g., 2A - Bi-Directional Integration of Physical and Behavioral Health and 3A - Addressing the Opioid Use Public Health Crisis).

Contracted partners reported that patients did not always understand the value of maternal-child health programs. Key informant interviews pointed to challenges with patient buy-in for interventions to increase child vaccinations. ACHs attempted to address this issue by increasing community outreach and investing in social media campaigns to educate parents on the importance of vaccinations and well-child visits.

The COVID-19 PHE led to reductions in preventive care and well-child visits, nurse home visitation, and services in school-based health centers. ACH partnering organizations cited drops in well-child visits and preventive care appointments during the PHE, as parents were hesitant to bring their children into clinics unless there was an acute need. School-based health centers also closed during the pandemic, limiting access to reproductive health care and services for youth.

In addition to the factors outlined here, Chapter 14 describes cross-cutting findings that impacted multiple HIPs.

Quantitative Evaluation Approach

Because Health Improvement Project 3B was optional for ACHs, we compared the outcomes of Apple Health enrollees in ACHs that participated in Project 3B to those in ACHs that did not. Specifically, our quantitative analysis of Project 3B used a difference-in-differences approach to compare outcome changes among individuals residing in ACHs that selected this HIP to outcome changes among individuals residing in other ACHs. Activities in other non-participating ACH regions, such as introducing a similar program or other interventions that drive changes in our target populations, may affect the difference-in-differences estimates. However, the presence of these interventions does not constitute a bias if such changes reasonably represent activities that Project 3B ACHs would have undertaken in the absence of the project.

We estimated three types of changes. First, we measured changes in outcomes from the pre-intervention period, which we refer to as "baseline," (January 2017-December 2018) to the peak COVID-19 PHE years, "peak PHE years," (January 2020-December 2021), recognizing that these years might be the most disrupted by the COVID-19 PHE. Second, we measured changes in outcomes from the baseline period to 2022, the final year of our evaluation of the MTP demonstration (January 2022-December 2022), and the year when the most disruptive impacts of the COVID-19 PHE may have dissipated. Finally, we measured changes between the peak PHE years and 2022,

which may indicate resilience and recovery as the health system emerged from the PHE. We adjusted for regional differences in Apple Health enrollees' age, gender, urban and rural residence, and a limited set of Chronic Illness and Disability Payment System (CDPS) risk indicators that could otherwise explain observed differences across regions. See Appendix B for methodological details.

Target Populations. Using the populations that ACHs described as intended beneficiaries of Project 3B as a guide, we focused our analysis on two specific populations.

1. Women of reproductive age
2. Pregnant women

We defined women of reproductive age as those identified as female and between the ages of 15 and 50 in Apple Health demographic records.

Using indicators provided by Washington State's Department of Social and Health Services, we identified our second population by selecting all enrollees who were pregnant and delivered in the second, third, or fourth quarter or who were pregnant in the second or third quarter and remained pregnant until the end of the measurement period.

This approach was not perfectly aligned with all ACH target populations for their Project 3B work. For example, some ACHs described their target populations as including mothers of young children ages 0-3. However, it was not possible to identify these mother-child dyads in Apple Health claims data.

Summative Evaluation Results

We present the results of our evaluation of Health Improvement Project 3B, "Reproductive and Maternal/Child Health" below. These results reflect changes from the baseline period, 2017-2018, through the peak PHE years, 2020-2021, and the final year of the evaluation, 2022.

Outcomes are presented for the two populations of interest: (1) women of reproductive age; and (2) pregnant women. A guide to reading results describes how to interpret tables (see Chapter 5, How to Read this Section: Health Improvement Projects). The Data Appendix displays changes in outcomes for the two target populations across all nine ACHs.

Analysis 1: Women of Reproductive Age

Most outcomes assessed for Project 3B did not change significantly between baseline and 2022. ED visits decreased during the entire observation period among women of reproductive age residing in Project 3B ACHs compared to women of reproductive age residing in other ACHs, including baseline to peak PHE (-1.9 visits per 1,000 member months), peak PHE to 2022 (-2.3 visits per 1,000 member months) and overall (-4.1 visits per 1,000 member months). In contrast, acute hospital discharges increased from baseline to 2022 (+2.6 visits per 1,000 members), largely driven by changes from peak PHE to 2022 (+2.2 visits per 1,000 members). Rates of chlamydia screening decreased over the entire observation period (-2.3%), with the biggest losses observed from baseline to the peak PHE years (-1.9%). There was also a decline in the rate of mental health treatment penetration from baseline to 2022 (-0.9%).

Four of six spending measures had statistically significant declines over the entire observation period, with the largest declines between the baseline and peak PHE years. For example, differential declines were seen in spending measures between baseline and peak PHE years for total spending (-$25 PMPM), total spending excluding pharmacy (-$26 PMPM), behavioral health care (-$23 PMPM), and SUD care (-$26 PMPM).

Exhibit 11.2. Change in Outcomes for Women of Reproductive Age

Metrics Grouped by Domain		Treated Baseline	Comparison Baseline	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D2: Access to Primary and Preventive Care						
Well-Care Visits Ages 3 to 21	[2]	30.0%	34.4%	1.9%*	0.6%	-1.3%*
D3: Reproductive and Maternal Health Care						
Timely Prenatal Care	[1]	86.4%	87.4%	0.1%	0.1%	0.0%
Effective Contraception	[1]	29.7%	28.5%	-0.3%	-0.3%	0.0%
Long-Acting Reversible Contraceptives within 90 Days of Delivery	[0]	18.6%	22.3%	0.5%	0.8%	0.3%
Effective Contraception within 90 Days of Delivery	[1]	48.3%	51.2%	0.8%	0.8%	0.0%
D4: Prevention and Wellness						
Chlamydia Screening for Women	[1]	50.4%	52.7%	-1.9%*	-2.3%*	-0.4%
D5: Mental Health Care						
Mental Health Treatment Penetration	[3]	54.9%	52.8%	-1.4%*	-0.9%*	0.5%
30-Day Hospital Readmission for a Psychiatric Condition	[0] ↓	11.1%	12.4%	1.0%	-0.9%	-1.8%
D8: Emergency Department, Hospital, and Institutional Care Use						
Hospital Readmission within 30 Days	[3] ↓	10.7%	11.8%	0.3%	-1.0%	-1.3%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	69.2	68.4	-1.9*	-4.1*	-2.3*
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	47.7	47.0	0.4	2.6*	2.2*
D9: Substance Use Disorder Care						
Substance Use Disorder Treatment for People with Treatment Need	[3]	40.4%	32.9%	-0.1%	-0.9%	-0.8%
D11: Spending						
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$417	$369	-$26*	-$19*	$7
Total Spending Per Member, Per Month	[0] ↓	$498	$440	-$25*	-$19*	$7
LTSS Spending Per Member, Per Month	[0] ↓	$35	$36	-$3	-$3	$0
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$123	$70	-$23*	-$22*	$1
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$374	$371	-$2	$3	$5
Substance Use Disorder Spending Per Member, Per Month	[0] ↓	$79	$30	-$26*	-$26*	$0

Analysis 2: Pregnant Women

Measures of reproductive and maternal health care and prevention and wellness remained relatively unchanged among pregnant women residing in Project 3B ACHs compared to pregnant women residing in other ACHs over the observation period (Exhibit 11.3). As with the first target population, the rate of mental health treatment penetration decreased among pregnant women residing in Project 3B ACHs compared to pregnant women residing in other ACHs from baseline to 2022 (-7.7%), with the largest differential decrease occurring between baseline and the peak PHE years (-7.1%). The rate of ED visits also decreased from baseline to 2022 (-6.9 visits per 1,000 member months), with the biggest differential visit decrease observed between peak PHE and 2022 (-6.1 visits per 1,000 member months).

Four of six expenditure measures had statistically significant differential declines, including total spending (-$46 PMPM), total spending excluding pharmacy (-$42 PMPM), behavioral health care (-$35 PMPM), and SUD care (-$37 PMPM). Most of these differential declines were also statistically significant between baseline and peak PHE years.

Exhibit 11.3. Change in Outcomes for Pregnant Women

Metrics Grouped by Domain		Treated Baseline	Comparison Baseline	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D2: Access to Primary and Preventive Care						
Well-Care Visits Ages 3 to 21	[2]	33.4%	32.8%	-0.1%	1.1%	1.3%
D3: Reproductive and Maternal Health Care						
Timely Prenatal Care	[1]	86.8%	87.6%	-0.5%	-0.3%	0.1%
Effective Contraception	[1]	53.1%	55.9%	1.6%	2.0%	0.5%
Long-Acting Reversible Contraceptives within 90 Days of Delivery	[0]	18.5%	21.9%	0.6%	0.3%	-0.3%
Effective Contraception within 90 Days of Delivery	[1]	47.6%	51.0%	1.6%	1.4%	-0.2%
D4: Prevention and Wellness						
Chlamydia Screening for Women	[1]	73.2%	74.5%	0.2%	0.5%	0.3%
D5: Mental Health Care						
Mental Health Treatment Penetration	[3]	47.4%	44.3%	-7.1%*	-7.7%*	-0.6%
30-Day Hospital Readmission for a Psychiatric Condition^^	[0] ↓	6.2%	13.2%	7.8%	0.2%	-8.0%
D8: Emergency Department, Hospital, and Institutional Care Use						
Hospital Readmission within 30 Days	[3] ↓	8.2%	10.6%	-0.4%	1.0%	1.4%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	115.1	122.5	-0.8	-6.9*	-6.1*
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	59.5	51.1	-1.5	-5.6	-4.2
D9: Substance Use Disorder Care						
Substance Use Disorder Treatment for People with Treatment Need	[3]	38.7%	31.0%	2.2%	1.7%	-0.4%
D11: Spending						
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$1,008	$960	-$40	-$42	-$2
Total Spending Per Member, Per Month	[0] ↓	$1,127	$1,075	-$33	-$46	-$13
LTSS Spending Per Member, Per Month	[0] ↓	$9	$14	$3	$2	-$1
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$140	$65	-$31*	-$35*	-$5
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$988	$1,010	-$2	-$11	-$9
Substance Use Disorder Spending Per Member, Per Month	[0] ↓	$122	$48	-$34*	-$37*	-$3

Conclusion

As of late 2019, some partners had not yet fully implemented Project 3B, which limited the interpretation of the interim evaluation results. We found relatively few changes among women of reproductive age and pregnant women residing in ACHs participating in Project 3B compared to women of reproductive age and pregnant women residing in other ACHs. These findings align with our qualitative understanding of ACH efforts, with two of three participating ACHs targeting their efforts on contraception rather than efforts that would impact outcome metrics across the broader reproductive health continuum.

ACHs and their partners reported low prioritization for Project 3B. More work may be needed to emphasize the importance of maternal and child health programs to both partner organizations and patients. Buy-in from partners could be encouraged by highlighting the significance of reproductive health issues and increasing statewide attention and interest in maternal and child health.

Health Improvement Project 3C

This chapter presents results of the summative evaluation of MTP Initiative 1 Health Improvement Project 3C, **"Access to Oral Health Services."**

We provide background on the topic area, then summarize the changes to care that Project 3C was designed to produce. Through key informant interviews and reviews of program documents collected during the evaluation period, we then describe project implementation through 2022. Analyses of health care claims data are used to assess whether and how health outcomes changed for key populations through this initiative.

Background

Dental disease disproportionately affects low-income adults and children. Nationwide, low-income adults are nearly 40 percent less likely to have had a dental visit in the past 12 months compared to those with higher incomes,[56] and roughly 45 percent of low-income adults ages 20-64 have untreated tooth decay.[57] Children living under 100 percent of the federal poverty level have more than 50 percent higher odds of having tooth decay compared to children from higher-income households.58In the United States of America, early childhood caries (ECC Oral health is also closely connected to systemic health and overall well-being. Research demonstrates links between periodontal disease and several systemic health conditions, including pulmonary disease, diabetes, kidney disease, and pregnancy-related conditions.[59]

Medicaid is the main source of dental insurance coverage for low-income families. However, coverage does not guarantee access to oral health services. Almost two-thirds of children enrolled in Medicaid nationwide do not receive annual dental services.[60] Medicaid enrollees often have trouble finding Medicaid-contracted dental providers, as only 39% of dentists nationwide accept Medicaid.[61] Low Medicaid reimbursement rates have historically limited dentist enrollment and participation in the program.[62,63]

Another barrier to accessing oral health care includes reluctance to visit a dentist. One mechanism to address this barrier is through oral health integration, which embeds oral health screening, assessment, intervention, and referral into routine primary care settings. This strategy aims to connect the historically siloed oral and medical healthcare delivery systems to support whole-person care. Through this integration, more patient populations will have access to oral health care, especially high-risk or high-needs groups already interacting with the primary care system, such as children, pregnant people, and people with diabetes.[64]

MTP Project Toolkit Guidance

The objective of Project 3C was to increase access to oral health services to prevent or control the progression of oral disease and ensure that oral health is recognized as a fundamental component of whole-person care. The MTP Project Toolkit identified all Apple Health enrollees, especially adults, as the target population for this HIP.

ACHs that chose to participate in Project 3C were expected to select evidence-based approaches from the MTP Project Toolkit that included (1) integrating oral health referral into primary care settings and (2) creating mobile dental units to improve access to care.

The Project Toolkit suggested a phased approach to integrate oral health into primary care services that started with preventive screening of patients in primary care settings, identification of people at high risk, and development of structured referral processes for dentistry. Subsequent phases included the provision of fluoride

varnish for pediatric patients and high-risk adults in primary care settings and the establishment of clinical guidelines that incorporated five elements of oral health delivery, described below.

- Verbally assess symptoms that might indicate risk of oral disease
- Clinically assess signs that might indicate oral health risk or disease
- Determine the needed response
- Act by delivering preventive interventions or appropriate referral
- Document findings as structured data to manage quality of care

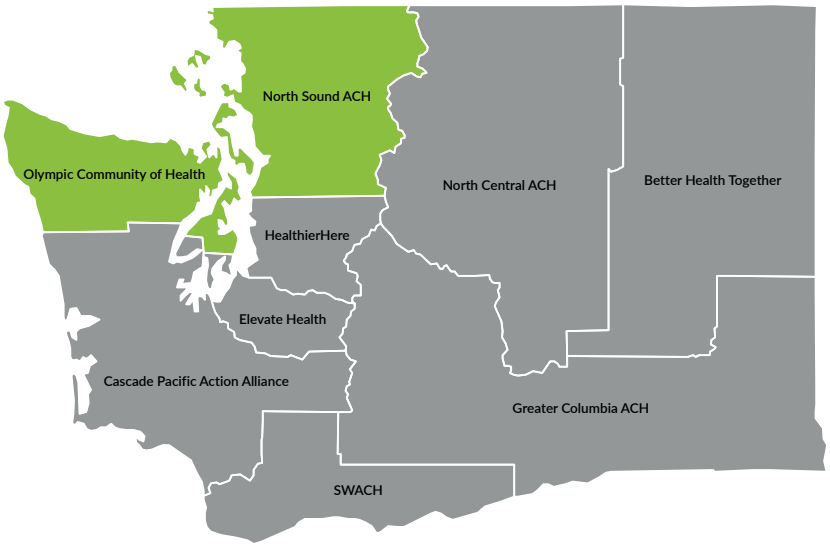
The National Maternal and Child Health Resource Center provided a manual to guide the planning and implementation of mobile dental units and portable dental care equipment. ACHs that elected to implement these services were expected to identify potential locations for mobile dental units in areas where Apple Health enrollees already access housing, transportation, or other community-based supports, as well as locating potential sites serving rural communities, migrant worker locations, and Tribal reservations. These ACHs secured any necessary permits and licenses required by the state or locality and established referral relationships with primary care providers, dental providers, and other specialists as needed.

Project 3C Implementation Evaluation

Participating ACHs

Participation in Project 3C was optional, and two ACHs selected it for implementation: NSACH and OCH (see Exhibit 12.1).

Exhibit 12.1. ACHs Participating in Project 3C, Access to Oral Health Services



These ACHs described their regions as having limited access to oral health services, with some counties ranking among the state's lowest.

Target Population Selection

In addition to all Apple Health enrollees listed in the MTP Project Toolkit, ACHs identified other specific target populations based on community needs assessments and stakeholder feedback. These additional target populations included children ages 6-14 at elevated risk of caries and not already receiving sealants, adults with chronic periodontitis not already receiving treatment, adults and children in primary care medical practices who were not accessing dental services, pregnant women, individuals with diabetes, and persons living in rural areas.

Qualitative Methods

Sample. We examined Project 3C from the viewpoint of ACH leaders and ACH partner organizations. We conducted eight interviews with ACH representatives, three to five per ACH, who were able to speak about Project 3C implementation. We interviewed executive directors, chief operating officers, clinical directors, program managers, and an ACH board member who were purposively selected for their knowledge about contracts with partner organizations and their experience with Project 3C. We interviewed six leaders at medical partner organizations (e.g., primary care practices, Federally Qualified Health Centers [FQHCs], hospital systems) to learn about their experiences working with their ACH on Project 3C.

Data Collection. We completed semi-structured interviews between May 2019 and June 2023. Interviews were conducted iteratively, and we interviewed ACH leaders before partner organization leaders, allowing our team to use what we learned from ACH leader interviews to inform questions we explored with later participants.

Analysis. We used a deductive approach, as we wanted to identify, categorize, and describe the implementation support strategies ACHs used for Project 3C and, to the extent possible, the specific changes ACH partner organizations made related to improving access to oral health services.

Limitations. Interviews with ACH leaders and program managers covered multiple topics related to Domain 1 and other HIPs. ACHs may have promoted interventions or provided additional implementation support not disclosed during interviews.

ACHs Provided Support to Partners for Project 3C

ACHs reported that they had:

Provided training and education to partnering organizations. ACHs participating in Project 3C, as well as ACHs not formally participating (GCACH and BHT), funded training for physical health providers on screening patients in primary care and behavioral health settings to identify people at high risk for oral disease. They also organized training for providing preventive oral health services such as fluoride, varnishing, or sealants in primary care settings. NSACH additionally trained partners to use Dentist Link. This free service connected patients to dentists based on need, location, and insurance status.

Helped partners expand health information technology and created referral systems for oral health. OCH helped partnering organizations establish referral systems from primary care to oral health providers through communication agreements or expanded HIT infrastructure. These referral partnerships were intended to improve access to oral health services. For example, one primary care practice reported that through their collaboration with dental clinics, they were able to facilitate quick access for their patients.

Connected partners to implement mobile dental health services and school-based dental care. OCH and NSACH connected education service districts and partnering organizations that provided oral health services to increase children's access to preventive oral health care through school programs. This strategy also targeted children living in rural areas with limited or no access to oral health services.

Partners in both Project 3C participating regions launched mobile dental services and established schedules for dental hygienists to visit school settings. One OCH partnering provider organization reported implementing their Smile Mobile dental health clinic in a rural area, where the nearest dental health clinic that accepted Apple Health was an hour away.

Expanded the regional workforce by funding training for dental health aide therapists in Native American Nations. Both participating ACHs initially planned to support training dental health aide therapists (DHATs) - mid-level professionals who, according to the Alaska Native Tribal Health Consortium, provide "patient and community-based preventive dental services, basic restorations and uncomplicated extractions" under the supervision of a licensed dentist.[65] According to Washington state law, DHATs are only able to work at practices within the boundaries of a tribal nation or at a tribally operated health program.[66] NSACH financially helped the Swinomish Indian Tribal Community and Skagit Community College purchase the DHAT curriculum to conduct DHAT training locally (previously, the only programs available were in Alaska). OCH was also interested in training DHATs, but they did not appear to implement this training.

Other Factors May Have Influenced Project 3C Implementation

Efforts to promote oral health access were already underway before MTP began. These early efforts were particularly well-defined in the NSACH region, particularly within FQHCs. NSACH designed Project 3C activities to complement, leverage, and expand this work. NSACH also absorbed a regional Baby and Child Dentistry program established by the Whatcom Alliance for Health Advancement, an organization that NSACH absorbed. This program coordinated the region's school-based oral health project.

Work towards improving oral health access was supported by collaboration, external funding, and planning from the Arcora Foundation. The Arcora Foundation aimed to advance oral health in Washington by offering grants and sponsorships. They provided additional start-up funds and technical assistance to 3C project partners. These funds and efforts were external to MTP. They supported the integration of medical and dental services, including practice coaches who trained medical assistants to provide fluoride treatments, oral health education, and referrals to dental care. Dentist Link, the program used for oral health care referrals by ACH partners, was also funded and operated by the Arcora Foundation.

Apple Health was not widely accepted by dentists in some regions. Partnering organizations and providers reported that many dentists operated private practices and had historically not accepted public insurance payments. A lack of provider willingness to accept Apple Health may have limited the potential reach of ACHs' oral health strategies for their target populations.

State health policy does not allow dental health aide therapists to practice outside of Tribal Nations. To serve broader populations and expand dental health provider capacity, early project and implementation plan documents from OCH noted requests to HCA to expand DHAT scope of practice outside of tribal health programs. This expansion did not occur, and OCH did not appear to implement DHAT training, likely because of the restrictions on practice and training.

Quantitative Evaluation Approach

Because Health Improvement Project 3C was optional for ACHs, we compared the outcomes of Apple Health enrollees in ACHs that participated in Project 3C to those in ACHs that did not. Specifically, our quantitative analysis of Project 3C used a difference-in-differences approach to compare outcome changes among individuals residing in ACHs that selected this HIP to outcome changes among individuals residing in other ACHs. Activities in other non-participating ACH regions, such as introducing a similar program or other interventions that drive changes in our target populations, may affect the difference-in-differences estimates. However, the presence of

these interventions does not constitute a bias if such changes reasonably represent activities that Project 3C ACHs would have undertaken in the absence of the project.

We estimated three types of changes. First, we measured changes in outcomes from the pre-intervention period, which we refer to as "baseline," (January 2017-December 2018) to the peak COVID-19 PHE years, "peak PHE years," (January 2020-December 2021), recognizing that these years might be the most disrupted by the COVID-19 PHE. Second, we measured changes in outcomes from the baseline period to 2022, the final year of our evaluation of the MTP demonstration (January 2022-December 2022), and the year when the most disruptive impacts of the COVID-19 PHE may have dissipated. Finally, we measured changes between the peak PHE years and 2022, which may indicate resilience and recovery as the health system emerged from the PHE. We adjusted for regional differences in Apple Health enrollees' age, gender, urban and rural residence, and a limited set of Chronic Illness and Disability Payment System (CDPS) risk indicators that could otherwise explain observed differences across regions. See Appendix B for methodological details.

Target Populations. Using the populations that ACHs described as intended beneficiaries of Project 3C as a guide, we focused our analysis on two specific populations.

1. All Apple Health enrollees
2. Pregnant women

The first population for this analysis reflected efforts to improve the oral health of Apple Health enrollees as a whole. Our second population, pregnant women, was selected because poor oral health may adversely affect pregnant women and their babies.[67–69] Pregnant women and women of reproductive age were identified as priority populations for ACHs participating in this project. Using indicators provided by Washington State's Department of Social and Health Services, we selected all enrollees who were pregnant and delivered in the second, third, or fourth quarter or who were pregnant in the second or third quarter and remained pregnant until the end of the measurement period.

As we did not specifically focus on children as a target population for this analysis, this approach was not perfectly aligned with all ACH target populations for their Project 3C work.

Summative Evaluation Results

We present the results of our evaluation of Health Improvement Project 3C, "Access to Oral Health Services" below. These results reflect changes from the baseline period, 2017-2018, through the peak PHE years, 2020-2021, and the final year of the evaluation, 2022.

Outcomes are presented for the two populations of interest: (1) all Apple Health enrollees; and (2) pregnant women. A guide to reading results describes how to interpret tables (see Chapter 5, How to Read this Section: Health Improvement Projects). The Data Appendix displays changes in outcomes for the two target populations across all nine ACHs.

Analysis 1: All Apple Health Enrollees

The three oral health care domain measures had some statistically significant changes across the observation periods, although not in a uniform direction (Exhibit 12.2). There were slight improvements in the rate of preventive or restorative dental services, which increased 0.8% more among individuals in Project 3C ACHs compared to individuals in other ACHs over the entire observation period, with a differential increase occurring between baseline and peak PHE years (+1.8%) and a differential decrease occurring between peak PHE years and 2022 (-1.0%). However, the rate of periodontal exams for adults decreased baseline and 2022 (-2.4%), The rate of

topical fluoride at a medical visit decreased by 0.7% from baseline to peak PHE years but rebounded after the PHE (+0.8%). ED visits decreased slightly (-2,9 visits per 1000 member months), while hospitalizations increased (+3.0 admissions per 1000 members).

All measures in the spending domain decreased significantly between baseline and 2022 among individuals residing in Project 3C ACHs compared to individuals residing in other ACHs. Total spending had the largest differential decreases (-$26 PMPM), followed by total spending excluding pharmacy (-$25 PMPM), behavioral health care (-$18 PMPM), and SUD care (-$15 PMPM).

Exhibit 12.2. Change in Outcomes for All Apple Health Enrollees

Metrics Grouped by Domain		Treated Baseline	Comparison Baseline	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D6: Oral Health Care						
Preventive or Restorative Dental Services	[1]	42.7%	46.0%	1.8%*	0.8%*	-1.0%*
Topical Fluoride at a Medical Visit	[1]	3.4%	4.7%	-0.7%*	0.1%	0.8%*
Periodontal Exam for Adults	[2]	53.0%	49.1%	-0.2%	-2.4%*	-2.1%*
D8: Emergency Department, Hospital, and Institutional Care Use						
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	47.3	50.2	-0.4	-2.9*	-2.5*
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	64.3	66.3	1.5	3.0*	1.4
D11: Spending						
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$342	$305	-$29*	-$25*	$4
Total Spending Per Member, Per Month	[0] ↓	$414	$373	-$29*	-$26*	$3
LTSS Spending Per Member, Per Month	[0] ↓	$33	$37	-$3*	-$4*	-$1
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$99	$58	-$20*	-$18*	$3
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$314	$315	-$9*	-$8*	$1
Substance Use Disorder Spending Per Member, Per Month	[0] ↓	$59	$22	-$18*	-$15*	$2

Analysis 2: Pregnant Women

Two measures improved between baseline and 2022. The rate of preventive or restorative dental services increased 1.6% more among pregnant women residing in Project 3C ACHs compared to pregnant women residing in other ACHs over the entire observation period (Exhibit 12.3). In addition, The ED visit rate per 1,000 member months decreased by 7.4 visits more among pregnant women residing in Project 3C ACHs compared to pregnant women residing in other ACHs, mostly driven by changes observed from peak PHE years to 2022 (-6.7 visits per 1,000 member months). Other outcome measures did not exhibit statistically significant differential changes.

However, most measures in the spending domain decreased significantly between the baseline and 2022 for pregnant women residing in Project 3C ACHs compared to pregnant women residing in other ACHs. Differential PMPM decreases were observed in this population for total spending (-$87 PMPM), total spending excluding pharmacy (-$89 PMPM), behavioral health care (-$56 PMPM), and SUD care (-$55 PMPM).

Exhibit 12.3. Change in Outcomes for Pregnant Women

Metrics Grouped by Domain		Treated Baseline	Comparison Baseline	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D6: Oral Health Care						
Preventive or Restorative Dental Services	[1]	37.9%	39.8%	2.2%*	1.6%	-0.5%
Periodontal Exam for Adults^	[2]	64.4%	61.4%	-1.2%	-4.4%	-3.3%
D8: Emergency Department, Hospital, and Institutional Care Use						
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	112.7	122.2	-0.7	-7.4*	-6.7*
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	56.2	52.9	3.4	-3.2	-6.6
D11: Spending						
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$1,033	$960	-$56*	-$89*	-$33
Total Spending Per Member, Per Month	[0] ↓	$1,151	$1,075	-$44	-$87*	-$44
LTSS Spending Per Member, Per Month	[0] ↓	$9	$13	$5	$4	-$1
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$159	$69	-$45*	-$56*	-$12
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$992	$1,006	$1	-$31	-$32
Substance Use Disorder Spending Per Member, Per Month	[0] ↓	$142	$52	-$44*	-$55*	-$11

Conclusion

Project 3C's main objective was to increase access to oral health services to prevent or control oral disease progression. Two ACHs chose Project 3C for implementation, citing particularly limited access to oral health services in their regions.

Both target populations demonstrated increases in the use of preventive or restorative dental services over the observation period. There were also decreases in PMPM spending among individuals residing in Project 3C ACHs compared to individuals residing in other ACHs, although we cannot attribute spending decreases to the impact of Project 3C efforts alone.

There are several reasons why the observed changes were not larger in magnitude. First, although the analysis focuses on the two ACHs who officially selected Project 3C, the other seven ACHs reported implementing oral health strategies in the context of other MTP projects or supporting other regional oral health efforts. Concurrent activities in ACHs not formally participating in the project may have led to similar improvements in some outcomes among individuals residing in these ACHs compared to individuals residing in the two participating ACHs, affecting difference-in-difference estimates. Second, ACHs shared that some patients delayed or deferred non-emergency dental care, which may have limited the efficacy and reach of Project 3C efforts. Finaly, the strategies that ACHs implemented do not directly address the issue of low Apple Health acceptance rates by dentists in some regions. Increasing Apple Health payments may more directly encourage dentists and oral health providers to accept Apple Health enrollees for treatment.

Health Improvement Project 3D

This chapter presents results of the summative evaluation of MTP Initiative 1 Health Improvement Project 3D, **"Chronic Disease Prevention and Control."**

We provide background on the topic area, then summarize the changes to care that Project 3D was designed to produce. Through key informant interviews and reviews of program documents collected during the evaluation period, we then describe project implementation through 2022. We also provide results from analyses of health care claims data to inform whether and how health outcomes changed for key populations through this initiative.

Background

Chronic diseases are both prevalent and costly, responsible for an estimated seven out of 10 deaths in the United States.[70] Approximately 60% of American adults have at least one chronic condition, and 42% have multiple chronic conditions.[71] Uncontrolled chronic disease is the leading cause of avoidable hospitalizations; in 2017, they drove an estimated $4.9 billion in avoidable costs to Medicaid.[72]

Effectively addressing chronic conditions depends on the success and integration of multidisciplinary services, care coordination, and population health management strategies within a health system.[73,74] HIT can help identify people at risk for new chronic diseases and monitor them over time.[75] These same services, tools, and strategies can reduce avoidable hospitalizations and ED visits, which help control the cost of care.

Interventions to improve outcomes for patients with chronic conditions can be targeted to individuals, organizations, or entire health systems. A common intervention, self-management support, helps individual patients manage their health through chronic disease education and other activities. These programs are associated with significant improvements in patient outcomes, particularly for certain chronic diseases like diabetes and hypertension. [76] More comprehensive approaches, such as delivery system redesigns and decision supports, have been broadly tested and associated with improved outcomes. The success of these interventions often depends on implementation logistics and may be limited to specific conditions or outcomes.[76]

MTP Project Toolkit Guidance

The objective of Project 3D was to integrate health system and community approaches to improve chronic disease management and control. The MTP Project Toolkit identified Apple Health enrollees (adults and children) with or at risk for arthritis, cancer, chronic respiratory disease (asthma), diabetes, heart disease, obesity, and stroke as the target population for this HIP. The Toolkit focused on those populations experiencing the region's greatest chronic disease burden.

The evidence-based Chronic Care Model[77] was identified to inform ACH efforts for projects in this area. Chronic Care Model change strategies outlined in the Project Toolkit are described below.

- **Self-management support strategies and resources,** such as patient motivational interviewing, action plans, chronic disease education, and home monitoring, to equip people to monitor and manage their chronic conditions
- **Delivery system design strategies** to promote interdisciplinary, team-based care and enhance care planning and care management activities

- **Decision support strategies,** such as the development of new workflows or clinical guidelines, training on evidence-based practices, or access to new tools such as guidelines and prompts embedded within EHR systems
- **Clinical information systems strategies** to facilitate population health management, including tools such as automated reminders, patient registries, information exchanges, and reports
- **Community-based resources and policy strategies,** such as community paramedicine, local collaborations on tobacco cessation, food access, and physical activity
- **Health care organization strategies,** including quality improvement processes, leadership engagement, and financial alignment of payments and performance

ACHs were encouraged to focus on more than one chronic condition under the Chronic Care Model. Examples of specific strategies to consider included:

- **Stanford Chronic Disease Self-Management Program.**[78] An interactive program for adults with at least one chronic health condition that focuses on disease management skills, including decision-making, problem-solving, and action planning.
- **Centers for Disease Control and Prevention (CDC)-recognized National Diabetes Prevention Programs.**[79] A partnership of public and private organizations that works to make it easier for people at risk for type 2 diabetes to participate in evidence-based lifestyle change programs to reduce their disease risk.
- **Community Paramedicine models.**[80,81] A locally designed, community-based, collaborative model of care that leverages the skills of paramedics and emergency medical services (EMS) systems to address care gaps identified through a community-specific health care needs assessment.

Project 3D Implementation Evaluation

Participating ACHs

While participation in Project 3D was optional, all nine ACHs selected it for implementation. Project 3D included several metrics and toolkit strategies aligned with other project areas, and ACHs saw potential alignment between strategies that promoted chronic disease management and the required Project 2A-Bi-Directional Integration.

Target Population Selection

The MTP Project Toolkit designated Apple Health enrollees with chronic conditions as the target population. However, as ACHs worked to align Project 3D strategies with partner interests, some ACHs expanded outside of the target populations outlined in the MTP Project Toolkit to include other groups like people with opioid use disorder (OUD).

Qualitative Methods

Sample. We examined Project 3D from the viewpoint of ACH leaders and ACH partner organizations. We conducted 12 interviews with ACH representatives, one to two per ACH. We interviewed executive directors and program managers who were purposively selected for their knowledge about contracts with partner organizations and their experience with Project 3D. We interviewed 34 leaders at medical partner organizations (e.g., primary care practices, Federally Qualified Health Centers [FQHCs], hospital systems) and 20 interviews with leaders at behavioral health agencies to learn about their experiences working with their ACH on Project 3D.

Data Collection. We completed semi-structured interviews between May 2019 and June 2023. Interviews were conducted iteratively, and we interviewed ACH leaders before partner organization leaders, allowing our team to use what we learned from ACH leader interviews to inform questions we explored with later participants.

Analysis. We used a deductive approach, as we wanted to identify, categorize, and describe the implementation support strategies ACHs used for Project 3D and, to the extent possible, the specific chronic disease-related changes ACH partner organizations made.

Limitations. Interviews with ACH leaders and program managers covered multiple topics related to Domain 1 and other HIPs. ACHs may have promoted interventions or provided additional implementation support not disclosed during interviews. Some Project 3D interventions, like the CDC-recognized National Diabetes Prevention Programs and Community Paramedicine models, involved community-based organizations to implement these interventions who were not interviewed as part of the evaluation design.

ACHs Provided Support to Partners for Project 3D

ACHs reported that they had:

Promoted the Chronic Care Model. Some ACHs provided practice coaching and facilitation to help their partners implement care delivery changes and adopt attributes of the Chronic Care Model. For example, GCACH worked with partners to implement the Patient Centered Medical Home model, which focused on team-based care management, care coordination, care continuity, and developing quality improvement processes.

Partner organizations reported increasing their use of registries to identify, track, stratify, and conduct outreach to patients with chronic conditions to ensure they received timely preventive services and treatment. They revised clinical workflows to offer same-day access to appointments. They also implemented new screening protocols for chronic diseases like diabetes and implemented population health strategies like empanelment.

Other ACHs provided education and training about the Chronic Care Model. These ACHs educated partners through learning collaboratives, encouraging the adoption of some or all model components appropriate for a partner organization's capacity for change or clinical environment.

Promoted self-management and prevention programs. ACHs varied on which self-management strategies they prioritized, but their efforts included building awareness among primary care and behavioral health partners to increase referral rates to self-management programs like Chronic Disease Self-Management and the Diabetes Prevention Program. These programs were typically hosted by community-based organizations and were intended to support ongoing education and behavior change for people with chronic diseases such as hypertension and diabetes.

Promoted the Community Paramedicine model. Some ACHs that selected this model facilitated conversations between clinical partners, fire departments, and EMS. Others provided funding for information-sharing tools or for paramedics and emergency medical technicians to operate in expanded roles. These redefined roles were designed to better address the needs of Apple Health enrollees with complex social needs and chronic health conditions who frequently used emergency services and EDs for non-acute issues.

Encouraged partners to align their Project 3D efforts with other projects by implementing shared strategies. For example, the Community Paramedicine model was an intervention used in Project 2D, and the Pathways Care Coordination System from Project 2B was used to coordinate care for patients with chronic conditions.

ACHs also provided trainings and educational opportunities that were not explicitly tied to an intervention in the MTP Toolkit. These learning collaboratives included education and discussion of OUD as a chronic disease, trainings on treating co-occurring diseases like diabetes and depression, motivational interviewing, and chronic disease management in behavioral health settings.

Other Factors May Have Influenced Project 3D Implementation

Partnering providers used ACH funding to pay for services like outreach, population health management, and risk stratification. ACH funding was critical for implementing care delivery changes, as partnered organizations reported difficulty billing or generating enough revenue through fee-for-service payment models to fully cover staff time to conduct these activities. While this did not impact implementation during the evaluation period, it may influence provider organizations' ability to sustain these change efforts.

Not all ACHs used practice coaching or facilitation to help their partners implement care delivery changes; however, partner organizations that worked with ACHs that used this implementation strategy reported making concrete care delivery changes for managing chronic disease.

Some Project 3D strategies were reliant on workforce development, including community-based self-management programs and community paramedicine. Certified peer trainers led community-based self-management programs, while community paramedicine required the development of new skill sets in the existing workforce. Workforce shortages, particularly in rural areas, limited the potential of such programs in some regions.

Self-management classes were less popular during the COVID-19 PHE. When partners switched their in-person groups and classes to virtual meetings, they experienced challenges continuing to engage patients and encourage participation in Chronic Disease Self-Management and the Diabetes Prevention Program.

The Community Paramedicine model required partnerships with county fire and rescue departments. ACHs experienced varying success in establishing these partnerships, which led to county-level variability in Project 3D progress.

Project 3D benefited from health information technology and exchange tools to share patient information across clinical and community-based organizations. This functionality was not widely available during the study period, which limited two-way communication about referrals, cross-sector collaboration, and partner ability to monitor and measure patient engagement and the effectiveness of self-management programs.

In addition to the factors outlined here, Chapter 14 describes cross-cutting findings that impacted multiple HIPs.

Quantitative Evaluation Approach

Since all nine ACHs opted to participate in Project 3D, there was not a suitable comparison group available. We assessed changes among enrollees of all ACH regions using pre-post analysis.

We estimated three types of changes. First, we measured changes in outcomes from the pre-intervention period, which we refer to as "baseline," (January 2017-December 2018) to the peak COVID-19 PHE years, "peak PHE years," (January 2020-December 2021), recognizing that these years might be the most disrupted by the COVID-19 PHE. Second, we measured changes in outcomes from the baseline period to 2022, the final year of our evaluation of the MTP demonstration (January 2022-December 2022), and the year when the most disruptive impacts of the COVID-19 PHE may have dissipated. Finally, we measured changes between the peak PHE years and 2022, which may indicate resilience and recovery as the health system emerged from the PHE. We adjusted for regional differences in Apple Health enrollees' age, gender, urban and rural residence, and a limited set of Chronic Illness and Disability Payment System (CDPS) risk indicators that could otherwise explain observed differences across regions. See Appendix B for methodological details.

Target Populations. Using the populations that ACHs described as intended beneficiaries of Project 3D as a guide, we focused our analysis on two specific populations.

1. People with diabetes, asthma, chronic obstructive pulmonary disease (COPD), or cardiovascular conditions
2. People with type 2 diabetes

For the first population, we selected Apple Health enrollees with diagnoses for the following conditions: diabetes, asthma, COPD, or cardiovascular disease. We used CMS' Chronic Conditions Warehouse definitions to identify any claims with these diagnosis codes in any care setting. (SWACH also included a focus on chronic pain in the population they prioritized for their 3D work, but our analysis did not capture this population.)

For our second study population, people with type 2 diabetes, we used a similar method, relying on CMS' Chronic Conditions Warehouse to flag this condition. We focused our analysis on the population with type 2 diabetes because, although there was variation across ACHs, most ACHs identified this group as the intended beneficiaries of their activities.

Summative Evaluation Results

We present the results of our evaluation of Health Improvement Project 3D, "Chronic Disease Prevention and Control" below. These results reflect changes from the baseline period, 2017-2018, through the peak PHE years, 2020-2021, and the final year of the evaluation, 2022.

Outcomes are presented for the two populations of interest: (1) people with diabetes, asthma, COPD, or cardiovascular conditions; and (2) people with type 2 diabetes. A guide to reading results describes how to interpret tables (see Chapter 5, How to Read this Section: Health Improvement Projects). The Data Appendix displays changes in outcomes for the two target populations across all nine ACHs.

Analysis 1: People with Diabetes, Asthma, Chronic Obstructive Pulmonary Disease, or Cardiovascular Conditions

Changes in measures for this population were generally mixed over the observation period, and only one measure did not exhibit a statistically significant change between baseline and 2022 (Exhibit 13.1). In the mental health care domain, the rate of 30-day hospital readmissions for a psychiatric condition worsened between baseline and 2022 (+3.4%). Measures of care for people with these chronic conditions had inconsistent changes, with rates of controller medication for asthma improving from baseline to 2022 (+22.7%), and eye exams for people with diabetes (-3.9%) and kidney health evaluations for people with diabetes (-6.5%) worsening over the same period.

ED and hospital care use measures also demonstrated mixed results. The rates of ED visits (-10.0 visits per 1,000 member months) and adult discharges for acute hospitals (-9.7 visits per 1,000 members) decreased from baseline to 2022, with most of the changes occurring between baseline and peak PHE years. Over the same period, the rate of hospital readmissions within 30 days increased (+0.7%).

Total spending increased between baseline and 2022 (+$179 PMPM). However, spending measures for behavioral health care and SUD care declined (-$31 PMPM and -$10 PMPM, respectively).

Exhibit 13.1. Change in Outcomes for People with Diabetes, Asthma, Chronic Obstructive Pulmonary Disease, or Cardiovascular Conditions

Metrics Grouped by Domain		Baseline	PHE	2022	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D5: Mental Health Care							
30-Day Hospital Readmission for a Psychiatric Condition	[0] ↓	14.1%	18.8%	18.0%	3.8%*	3.4%*	-0.4%
D7: Care for People with Chronic Conditions							
Controller Medication for Asthma	[2]	54.0%	64.3%	75.6%	11.7%*	22.7%*	11.1%*
Eye Exam for People with Diabetes	[2]	41.4%	39.8%	36.1%	-0.3%	-3.9%*	-3.7%*
Kidney Health Evaluation for People with Diabetes	[2]	47.3%	40.9%	40.5%	-6.1%*	-6.5%*	-0.4%
Statin Medication for Cardiovascular Disease	[1]	82.9%	83.8%	82.7%	0.7%	-0.3%	-1.0%
D8: Emergency Department, Hospital, and Institutional Care Use							
Hospital Readmission within 30 Days	[3] ↓	15.5%	16.7%	16.6%	0.8%*	0.7%	0.0%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	103.7	85.5	91.7	-14.6*	-10.0*	4.6*
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	166.1	143.5	134.7	-6.6*	-9.7*	-3.0*
D11: Spending							
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$799	$809	$854	$61*	$111*	$51*
Total Spending Per Member, Per Month	[0] ↓	$1,023	$1,075	$1,145	$106*	$179*	$73*
LTSS Spending Per Member, Per Month	[0] ↓	$95	$129	$149	$36*	$57*	$21*
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$140	$113	$109	-$25*	-$31*	-$6*
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$883	$962	$1,036	$131*	$209*	$79*
Substance Use Disorder Spending Per Member, Per Month	[0] ↓	$55	$44	$45	-$10*	-$10*	$0

Analysis 2: People with Type 2 Diabetes

As with changes observed in the first target population, changes in measures for people with type 2 diabetes were mixed (Exhibit 13.2). The mental health care measure remained relatively stable over the observation period. Measures of care for people with type 2 diabetes had inconsistent changes, with rates of controller medication for asthma improving from baseline to 2022 (+21.6%), while rates of eye exams for people with diabetes (-3.4%) and kidney health evaluations for people with diabetes (-5.4%) worsened over the same period.

Some ED and hospital care measures decreased over the observation period. Decreases were observed for ED visits (-9.3 visits per 1,000 member months) and adult discharges for acute hospitals (-8.8 visits per 1,000 members) between baseline and 2022.

Total spending increased between baseline and 2022 (+$308 PMPM). Over the same period, behavioral health care spending declined (-$61 PMPM).

Exhibit 13.2. Change in Outcomes for People with Type 2 Diabetes

Metrics Grouped by Domain		Baseline	PHE	2022	ΔBL to PHE	ΔBL to 2022	ΔPHE to 2022
D5: Mental Health Care							
30-Day Hospital Readmission for a Psychiatric Condition^	[0] ↓	16.1%	20.4%	20.4%	3.1%	3.3%	0.4%
D7: Care for People with Chronic Conditions							
Controller Medication for Asthma	[2]	49.4%	60.7%	71.7%	11.6%*	21.6%*	9.9%*
Eye Exam for People with Diabetes	[2]	41.8%	40.4%	37.2%	-0.1%	-3.4%*	-3.3%*
Kidney Health Evaluation for People with Diabetes	[2]	47.7%	41.6%	41.9%	-5.8%*	-5.4%*	0.3%
Statin Medication for Cardiovascular Disease	[1]	87.5%	88.4%	87.3%	0.7%	-0.3%	-1.0%
D8: Emergency Department, Hospital, and Institutional Care Use							
Hospital Readmission within 30 Days	[3] ↓	19.6%	19.2%	20.0%	-0.8%	-0.2%	0.6%
Emergency Department Visit Rate (per 1,000 member months)	[8] ↓	114.6	96.1	96.3	-12.1*	-9.3*	2.6
Acute Hospital Use among Adults (per 1,000 members)	[5] ↓	221.7	197.6	180.9	-3.0	-8.8*	-5.9*
D11: Spending							
Total Spending Per Member, Per Month, excluding pharmacy	[0] ↓	$1,226	$1,202	$1,213	$93*	$165*	$76*
Total Spending Per Member, Per Month	[0] ↓	$1,648	$1,706	$1,748	$196*	$308*	$115*
LTSS Spending Per Member, Per Month	[0] ↓	$198	$252	$282	$74*	$115*	$43*
Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$164	$102	$95	-$56*	-$61*	-$5
Non-Behavioral Health Care Spending Per Member, Per Month	[0] ↓	$1,484	$1,604	$1,653	$252*	$369*	$120*
Substance Use Disorder Spending Per Member, Per Month	[0] ↓	$39	$34	$33	-$3	-$4	-$1

Conclusion

All nine ACHs elected to participate in Project 3D and encouraged partners to implement shared strategies to align this work with other project areas. ACHs provided technical assistance to partners to implement chronic disease management toolkit strategies.

Our findings suggest more significant changes in Project 3D measures compared with findings in the MTP Interim Evaluation. We found a significant drop in acute hospitalizations for people with chronic conditions, which we also found in the Interim Evaluation. The results presented here also show a similar drop in acute hospitalizations for the second target population, people with type 2 diabetes. Other Project 3D measures did not change in a uniform direction. Outcomes associated with the management of care for people with chronic conditions had mixed results for both target populations, as did outcomes for spending measures.

There are several potential explanations for these findings. First, ACHs and partners varied on which self-management strategies they prioritized. This may have led to substantial changes in a specific group of patients but mixed results across the whole population. Second, our quantitative analysis did not capture some ACH-defined target populations. For example, one ACH focused on chronic pain and OUD, and our analyses may not have captured improvements in this population. Third, ACHs noted that workforce shortages, virtual self-management classes during the COVID-19 PHE, and limited HIT functionality may have hindered Project 3D efforts. In addition, some measures may be directly related to patient and physician behavior during the PHE. For example, kidney health evaluation requires a blood test, which involves a visit to a lab. Physicians and providers might have delayed these exams during the PHE if they were routine or if previous exams showed healthy kidney measures. Finally, some measures, such as statin prescribing, were already quite high, and there may be ceiling effects where additional improvements would have been particularly difficult.

Health Improvement Work Across MTP Initiative 1

Chapter 14 includes:

- A summary of five factors that impacted ACH health improvement work across MTP initiative 1.
- A table charting notable changes in Health Improvement Project (HIP) outcomes across the Interim Report and Summative Report

Factors that Influenced Health Improvement Projects Across MTP 1.0

1. **The background, skills, and expertise of each individual ACH varied widely; this variation influenced the effectiveness of their partnerships and change efforts.** Some ACHs emerged out of public health agencies, equipping them with data analytics, quality improvement and evaluation experience. Such experience positioned these ACHs to contribute effectively to practice facilitation and transformation work. Other ACHs started as non-profit community-based organizations with established connections and relationships with social services organizations. These ACHS tended to prioritize advocacy and community-based social justice work with provider organizations.

2. **ACH attention and efforts were dispersed across a large number and wide range of projects; this made it difficult for ACHs to affect MTP-designated outcomes.** ACHs were tasked with supporting partner organizations to implement a broad set of initiatives and projects, which diffused their focus from individual projects to outcome measures. Some ACHs and their partners expressed a desire for the MTP demonstration to include fewer components, as they believed they could have focused their work and made a bigger impact on fewer target areas and outcome measures. Additionally, while MTP included multiple domains and eight distinct project areas, community partners did not describe conceptualizing care delivery this way. ACHs attempted to address partners' differing interests and workflows and strategically align some of their project efforts.

3. **ACHs and their partners engaged in activities that were not included in the MTP Toolkit or tied to established outcome measures.** While ACHs were tasked with implementing projects with partners, they demonstrated other valuable contributions to their regions. Therefore, some of the highest-value services the ACH provided were not necessarily the actions from the MTP Toolkit and may not have led to changes in established MTP outcome measures.

    - **ACHs served as convening organizations.** Partners described the importance of ACHs holding large meetings connecting area organizations, especially before the COVID-19 PHE. This allowed partners to learn from and about each other and begin the early work of building relationships. While these meetings were seen as initial steps towards integration and health system transformation and provided a valued space to connect that did not exist prior to the ACHs, they may have been insufficient to drive near-term outcome changes.

    - **ACHs served as motivators to change.** ACHs were not able to implement care changes but were able to provide motivation to provider organizations to do this work. Partners said their ACHs encouraged them to commit to work they were already considering. ACH motivation, accountability, and financial support helped move organizations from contemplation to action.

- **ACHs distributed funds and resources.** ACHs provided technical assistance and funding necessary to implement partner projects. For example, one ACH chose the Collaborative Care Model intervention from the list of bidirectional integration strategies in the MTP Toolkit and provided technical assistance and resources to contracted partners to support the adoption and implementation of the model. Sometimes ACH funding and technical assistance were not clearly tied to outcome changes but were still important in promoting public health efforts for their communities. For example, during COVID-19 ACHs were critical in securing and distributing supplies to provider organizations, and some ACHs worked on improving health equity.

Changes Across Evaluation Reports

The table below highlights notable changes across the Interim Report and Summative Report analyses.

Exhibit 14.1. Changes Across Evaluation Reports: Health Improvement Projects

HIP	Target Populations	Interim Report (baseline to 2019)	Summative Report (baseline to 2022)
2A: Bi-Directional Integration of Primary Care and Behavioral Health Services (all ACHs)	1 Any Behavioral Health Condition 2 Comorbid Behavioral Health Conditions and Chronic Physical Health Conditions	**SDOH domain:** across both target populations, measures **worsened**, except Arrest Rate which improved moderately	**SDOH domain:** across both target populations, all measures **improved**
		Mental Health Care domain: across both target populations, measures **mixed**, though the majority of measures **worsened**	**Mental Health Care domain:** across both target populations, measures were **mixed**, though a majority of measures **worsened**
		Substance Use Disorder domain: • Target population 1: all measures **improved** • Target population 2: three measures **improved**, two unchanged	**Substance Use Disorder domain:** across both target populations, all measures **improved**
2B: Community-Based Care Coordination (5 ACHs)	1 Comorbid Behavioral Health Conditions and Chronic Physical Health Conditions 2 High-risk pregnant women	**SDOH domain:** • Target population 1: all **worsened,** except Employment was unchanged • Target population 2: unchanged	**SDOH domain:** • Target population 1: mixed • Target population 2: unchanged
		Care for People with Chronic Conditions domain: across both target populations, measures were unchanged	
2C: Transitional Care (5 ACHs)	1 Discharged from hospital with any chronic condition 2 *NA – target population changed across Interim Report and Summative Report*	**SDOH domain:** • Target population 1: homelessness measure **improved**	**SDOH domain:** • Target population 1: homelessness measure **improved**
		Mental Health Care domain: • Target population 1, mostly unchanged, one measure worsened (Mental Health Treatment Penetration)	**Mental Health Care domain:** • Target population 1: one measure **worsened**
		Substance Use Disorder domain: Target population 1: three measures **worsened**	**Substance Use Disorder domain:** across both target populations, measures were unchanged

HIP	Target Populations	Interim Report (baseline to 2019)	Summative Report (baseline to 2022)
2D: Diversion Interventions (3 ACHs)	**1** Three or more ED visits **2** Five or more ED visits	**Access to Primary and Preventative Care domain:** across both target populations, measures did not change	**Access to Primary and Preventative Care domain:** • Target population 1: Well-Care Visits Ages 3 to 21 **worsened** • Target population 2: Adults' Access to Primary Care **improved**
		Mental Health Care domain: mostly unchanged across both target populations	**Mental Health Care domain:** mostly unchanged across both target populations
		Emergency Department, Hospital, and Institutional Care Use domain: • Target population 1: no change • Target population 2: one measure **improved**	**Emergency Department, Hospital, and Institutional Care Use domain:** across both target populations, unchanged
3A: Addressing the Opioid Use Public Health Crisis (all ACHs)	**1** All Medicaid-enrolled adults ages 19-64 **2** People with opioid use disorder	**Mental Health Care domain:** mostly unchanged	**Mental Health Care domain:** across both target populations, measure (30-Day Hospital Readmission for a Psychiatric Condition) **worsened**
		Emergency Department, Hospital, and Institutional Care Use domain: • Target population 1: Ratio HCBS Care use to Nursing Facility Use **improved** • Target population 2: three measures **improved**	**Emergency Department, Hospital, and Institutional Care Use domain:** • Target population 1: all measures **improved**, except for Hospital Readmission within 30 days • Target population 2: three measures **improved**
		Opioid Prescribing and Opioid Use Disorder Treatment: across both target populations, all measured **improved**	**Opioid Prescribing and Opioid Use Disorder Treatment:** Three of four measures **improved** for target population 1, all four measures **improved** for target population 2

HIP	Target Populations	Interim Report (baseline to 2019)	Summative Report (baseline to 2022)
3B: Addressing the Opioid Use Public Health Crisis (3 ACHs)	**1** Women of reproductive age **2** Pregnant women	**Prevention and Wellness domain:** across both target populations, measure was unchanged	**Prevention and Wellness domain:** • Target population 1: one measure (Chlamydia Screening for Women) **worsened** • Target population 2: unchanged
		Mental Health Care domain: • Target population 1: one measure (Mental Health Treatment Penetration) **worsened** • Target population 2: unchanged	**Mental Health Care domain:** across both target populations, one measure (Mental Health Treatment Penetration) **worsened**
		Emergency Department, Hospital, and Institutional Care Use domain: across both target populations, measures were unchanged	**Emergency Department, Hospital, and Institutional Care Use domain:** • Target population 1: mixed, one measure improved, one worsened • Target population 2: one measure (Emergency Department Visit Rate) **improved**
3C: Access to Oral Health Services **(2 ACHs)**	**1** All Apple Health enrollees **2** Pregnant women	**Oral Health Care domain:** • Target population 1: mixed • Target population 2: unchanged	**Oral Health Care domain:** • Target population 1: mixed • Target population 2: one measure **improved**
		Emergency Department, Hospital, and Institutional Care Use domain: across both target populations, measures were unchanged	**Emergency Department, Hospital, and Institutional Care Use domain:** • Target population 1: mixed • Target population 2: one measure (Emergency Department Visit Rate) **improved**
3D: Chronic Disease Prevention and Control (all ACHs)	**1** People with diabetes, asthma, COPD, cardiovascular conditions **2** People with type 2 diabetes only	**Mental Health Care domain:** across both target populations, measures were unchanged	**Mental Health Care domain:** • Target population 1: measure **worsened** • Target population 2: unchanged
		Care for People with Chronic Conditions domain: across both target populations, measures were mostly unchanged (target population 1 saw a slight improvement in one measure)	**Care for People with Chronic Conditions domain:** across both target populations, measures were mixed
		Emergency Department, Hospital, and Institutional Care Use domain: • Target population 1: two measures improved, one unchanged • Target population 2: unchanged	**Emergency Department, Hospital, and Institutional Care Use domain:** • Target population 1: mixed (two measure improved, one worsened) • Target population 2: mixed (two measures improved, one remained unchanged)

Notes, Challenges, and Lessons Learned

Several factors contextualize ACH HIP evaluation findings.

The Value of Clearly Defined Target Population. Given limits in data access, ACHs employed a population health-informed approach in their HIP work because defining a targeted population for each intervention was not feasible. This more diffuse intervention likely made it more difficult to see clear impact across individual HIPs.

- Future implementers of similar programs should strongly consider the benefits of more narrowly defined intervention target populations
- In the upcoming MTP 2.0 demonstration waiver, Health-Related Social Needs (HRSN) services will be delivered to Apple Health enrollees who are in the relevant covered population and meet defined clinical and social risk factors.

The Value of Linked Datasets. As client lists were not available, it was impossible for us to identify in our data which Apple Health enrollees received specific HIP interventions.

- Future implementers of similar programs should consider current data infrastructure and explore future linkage opportunities to facilitate real-time monitoring and strong impact evaluation designs.
- In the upcoming MTP 2.0 demonstration waiver, Washington state is working towards linking HRSN service and Community Hub referral data to Medicaid enrollee claims data.

More accountability is needed to monitor the achievement of ACHs and regional partners, and to connect these achievements with outcomes. Key informants from ACHs and provider organizations appreciated the funding they received and the flexibility HCA permitted. However, ACHs also reported that there were not enough reporting requirements. Reporting requirements would have given ACH leaders a mechanism for monitoring partners' activities and achievements to ensure they stayed on track and demonstrated progress. ACH leaders expressed a desire for this type of monitoring and accountability. Monitoring progress would have also fostered learning among ACHs about the impact of their investments across organizations.

Collaboration was limited among MCOs, ACHs, and provider organizations, which may impact partners' ability to sustain their health transformation efforts. MCOs, ACHs, and provider organizations did not come together to plan how these three organizations would work together strategically. While MCO employees served on the ACH boards, this may not have been enough collaboration to facilitate communication and partnership between MCOs, ACHs, and provider organizations. This limited collaboration contributed to limited planning for sustainability and a disconnect between what provider organizations implemented with ACH support during MTP and what roles, services, and care delivery changes MCOs were comfortable paying for and sustaining. Greater tracking and monitoring of innovations would help to ensure these services are worthy expenditures. Furthermore, provider organizations will continue to rely on grants and temporary funding to sustain the health transformation efforts they started during MTP without continued funding or revised MCO contracts to reimburse for these new services.

MTP Initiative 2

This chapter presents an evaluation of the Washington MTP Initiative 2 – Long-Term Services and Supports (LTSS). Initiative 2 consists of two programs: Medicaid Alternative Care (MAC) and Tailored Supports for Older Adults (TSOA), both of which provide support to older adults and their family caregivers. The MAC and TSOA programs share a common objective of providing a limited set of supportive services for people with functional limitations and their unpaid caregivers. Both programs share the foundational goal of intervening early, thereby delaying or mitigating the need for more intensive and expensive traditional LTSS. The MAC program offers services to people already enrolled in Apple Health. TSOA creates a new eligibility category and benefit package for people age 55 or older who are "at risk" of needing LTSS but who would otherwise be ineligible for Apple Health on the basis of financial criteria.

Chapter 15 includes:

- Analysis of MAC and TSOA program participants surveys (Summary from Interim Report)
- Enrollment in MAC and TSOA programs
- Descriptive analysis of outcomes among MAC and TSOA program participants
- Regression analysis of outcomes among MAC program participants

Changes Across Evaluation Reports

Summative analyses of the MAC and TSOA program did not notably depart from interim analyses. Early evidence that MAC participants had fewer adverse health outcomes following enrollment was observable in summative analyses.

KEY FINDINGS

- ***Traditional LTSS Use Among TSOA Program Participants.*** *Within the initial six months of enrollment in the TSOA program, only a small proportion of participants transitioned to Apple Health, with an even smaller portion utilizing traditional LTSS, suggesting that the TSOA program effectively delayed the initiation of traditional LTSS use. Over an extended period of enrollment in the TSOA program, there was an observed upward trend in LTSS expenditures, although the magnitude of the increase was relatively modest.*
- ***MAC and TSOA Program Enrollment.*** *Since their official launch in September 2017, the MAC and TSOA programs steadily increased enrollment over the 5-year demonstration period. However, enrollment in the TSOA program surpassed that of the MAC program, serving nearly 10,000 participants compared to approximately 400 in the MAC program over the 5-year demonstration period.*
- ***MAC Program Participants' Outcomes.*** *Participation in the MAC program was associated with a 22% reduction in 30-day hospital readmission rate. MAC participation did not result in statistically significant changes in any LTSS expenditures.*

Recommendations

Based on the key findings from the evaluation, we propose the following recommendations:

1. **Refine financial incentives for MAC program enrollment.** Given the overlap in eligibility and benefits with traditional Apple Health services, which offer more extensive service hours at no cost, prospective MAC participants may see limited incentives to enroll. The state should consider revising the financial incentives or benefit structure to make the MAC program more appealing. This could involve adjusting asset and income thresholds or enhancing the services offered within the MAC program to provide a clearer advantage over standard Apple Health services.
2. **Expand and promote caregiver support measures.** Caregivers play a critical role in the TSOA program's success, and their support correlates strongly with improved outcomes for participants. Expanding services and supports available to caregivers—such as respite care, training, and mental health services—could improve caregiver retention and effectiveness. Promoting these benefits could also attract more participants to the TSOA program, particularly those with informal caregivers.
3. **Implement targeted outreach strategies.** Implementing targeted outreach strategies catering to underrepresented groups could help increase enrollment. These efforts might include multilingual education campaigns, partnerships with community organizations serving diverse populations, and tailored messaging that addresses specific barriers or misconceptions about the programs.

The Tailored Supports for Older Adults (TSOA) and Medicaid Alternative Care (MAC) Programs

Background

Washington State's rapidly aging population represents a notable demographic shift. By 2040, the state is projected to be home to 2.3 million older adults aged 65 years and older.[82] Of those individuals, the population older than 85 — who typically require more extensive assistance for daily activities (i.e., long-term care) due to functional limitations — is expected to reach half a million.[82] Notably, the majority of long-term care for people aged 65 years and older in Washington is provided by unpaid family caregivers. These caregivers, while indispensable, often encounter high levels of mental and physical stress related to the strain of their unpaid caregiving responsibilities.[83]

Apple Health's traditional long-term services and supports (LTSS) program provides coverage for nursing facility care and home and community-based services (HCBS). HCBS services are offered through Medicaid waivers and amendments to the Medicaid state plans. To qualify for LTSS, which includes both nursing facility care and HCBS, Apple Health enrollees must meet specific financial and functional criteria. Those with assets and incomes below a certain threshold qualify for cost-free LTSS through Medicaid. In contrast, individuals exceeding these financial thresholds may still receive LTSS in the form of HCBS but must pay for a portion of the services while the state covers the rest of the costs. Additionally, the state has the right to reclaim part of the LTSS costs from the estate following their death, a process known as estate recovery.[84,85]

Washington State's approach to LTSS is innovative. In terms of financing, the state proactively advocated for HCBS as a more cost-effective alternative to nursing facility services. In 2020, HCBS expenditure accounted for 75.1% of the state's Medicaid LTSS spending, surpassing the national average of 62%.[86] Additionally, the state has a history of investing in supports for unpaid family caregivers, who represent a sizable segment of the long-term care workforce. In 2000, the state implemented the Family Caregiver Support program, offering a range of services for unpaid caregivers.[87]As an upstream financial investment in LTSS, Washington is the first state to pass legislation for a public long-term care insurance program, set to provide most residents up to $36,500 inflation-adjusted benefits in inflation-adjusted benefits for long-term care starting in 2026.[88]

MTP Initiative 2 Approach to Change

Building on the state's predecessor program, the Family Caregiver Support Program, MTP created two alternatives to traditional LTSS for older adults and their caregivers in September in 2017: Tailored Supports for Older Adults (TSOA) and Medicaid Alternative Care (MAC).

The TSOA and MAC programs share a common objective: to provide a limited set of supportive services for people with functional limitations and their unpaid caregivers. Both programs aim to intervene early, thereby delaying or mitigating the need for more intensive and expensive traditional LTSS. The MAC program offers services to people already enrolled in Apple Health, while TSOA establishes a new eligibility category for people age 55 or older who are "at risk" of needing LTSS but who would otherwise be ineligible for Apple Health on the basis of financial criteria.

Both programs offer supportive services for informal caregivers of individuals who need LTSS but are not yet using traditional LTSS (see Exhibit 15.1). The TSOA program also serves people without an informal caregiver. Eligibility is reassessed every six months. Unlike traditional LTSS, neither MAC nor TSOA require cost-sharing or potential estate recovery from participants.

The supportive services available to MAC and TSOA participants are similar. These include caregiver training, counseling, and respite care or home-delivered meals to relieve caregiver burden. Exhibit 15.2 describes the types of supportive services provided by both programs.

Exhibit 15.1: Who Is Eligible for MAC and TSOA?

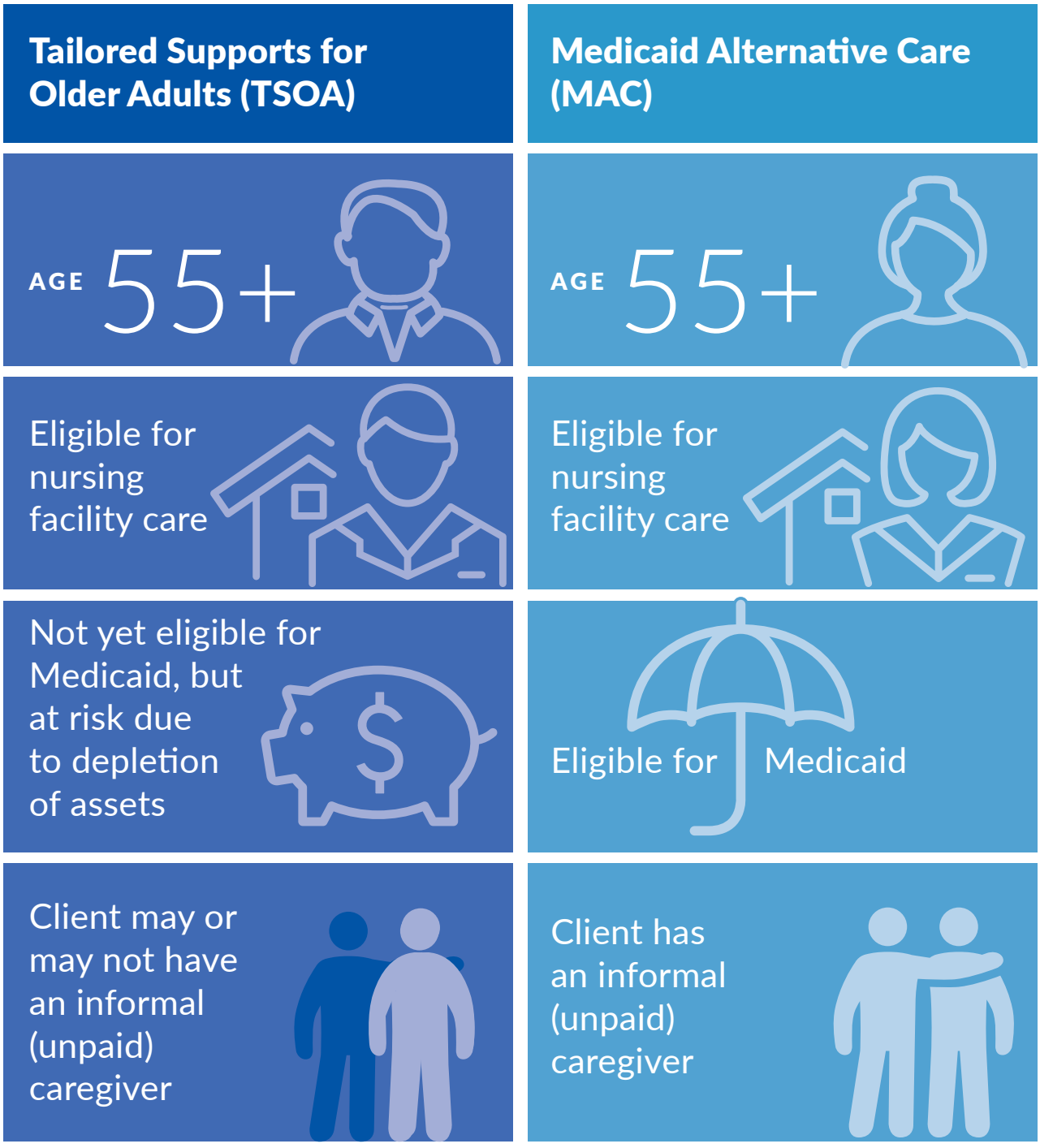


Exhibit 15.2. Types, Recipients, and Dollar Limits of MAC and TSOA Services

	MAC	TSOA
TYPE OF SUPPORTIVE SERVICES PROVIDED	• Caregiver assistance services including help with housework, errands, or yardwork; respite care; home-delivered meals; or minor home repairs. • Training and education to help caregivers gain skills and knowledge through support groups, consultation, or group trainings. • Specialized medical equipment and supplies (e.g., assistive technology, emergency response systems, or durable medical equipment). • Health maintenance and therapy supports, including adult day centers, exercise programs, or counseling.	Same services available in MAC. Additional services: Personal Assistance Services to individuals without an informal caregiver. For example, personal care, home-delivered meals, limited transportation, and nursing delegation.
RECIPIENT OF SUPPORTIVE SERVICES	Adult unpaid caregivers of MAC participants	Adult unpaid caregivers of TSOA participants TSOA participants without unpaid caregivers
DOLLAR LIMIT FOR SUPPORTIVE SERVICES[1]	**STEP 1:** Up to $250 (lifetime limit)	**STEP 1:** Up to $250 (lifetime limit)
	STEP 2: Up to $500 annually	**STEP 2:** Up to $500 annually
	STEP 3: Up to $4,908 in a six-month period (an average of $810 per month)	**STEP 3:** Up to $4,908 in a six-month period (an average of $810 per month)

The dollar limit applies to rates from January 1 to June 30, 2024. The dollar limit for Step 3 decreased in January 1, 2024 from $4,980 to $4,908. This reduction was a result of a legislature request to gradually decrease the COVID pandemic enhanced add-on rate by 20% every 6 months until it is completely phased out. The COVID pandemic enhanced add-on rate is expected to be fully phased out by July 1, 2024.[1]

Evaluation Approach

Quantitative Methods

Our Initiative 2 evaluation approach across the demonstration period comprised four distinct analyses. First, we analyzed the results of surveys with individuals enrolled in MAC or TSOA programs and measured care recipients' satisfaction with the program. Second, we employed a descriptive analysis to evaluate enrollment and disenrollment rates within the MAC and TSOA programs. Third, we conducted a descriptive analysis to assess adverse health events and the utilization of traditional LTSS among participants in the MAC and TSOA programs. Finally, we performed a regression analysis examining adverse health events, traditional LTSS utilization, and LTSS expenditures specifically associated with the MAC program.

Across the demonstration evaluation period, our Initiative 2 analyses were grounded in the following four hypotheses. Hypothesis 1 and hypothesis 2 apply to the self-report survey analyses; hypothesis 3 and hypothesis 4 apply to the descriptive and regression analyses. Because there were not any new self-report survey data collected after the MTP Interim report, we summarize the interim report analyses in this chapter to offer context to the Summative Report reader.

Hypothesis 1: From baseline to 6-month follow-up, caregivers will show decreased self-report measures of caregiving burden and increased self-report measures of physical and mental health status and quality of life.

Hypothesis 2: From baseline to 6-month follow-up, care recipients, including TSOA individuals without unpaid caregivers, will show increased self-report measures of physical and mental health status and quality of life.

Hypothesis 3: TSOA program participation led to a reduction in traditional LTSS use and any LTSS expenditures.

Hypothesis 4: MAC program participation was associated with a reduction in adverse health events, traditional LTSS use, and any LTSS expenditures.

Limitations. Our methods have several limitations. First, we could not conduct a regression analysis for the TSOA program. TSOA participants were not enrolled in Apple Health, which prevented us from using Medicaid claims to measure their basic characteristics, including age, sex, race and ethnicity, dual-eligible status, or health conditions. Access to these basic characteristics was essential to conduct a regression analysis. *In the MTP 2.0 evaluation, we intend to obtain Medicare claims data for TSOA participants. If successful, as long as TSOA participants were enrolled in Medicare, we will be able to assess the impact of TSOA on participant outcomes.*

Second, we excluded MAC program participants enrolled in Medicare Advantage plans from our regression analyses of three outcomes (hospitalizations, emergency department visits, and readmissions). This further reduced the sample size of MAC program participants for those analyses. With the relatively small sample size of MAC program participants, the changes in their outcomes became quite volatile over time, rendering them unreliable. *In the MTP 2.0 evaluation, we intend to obtain Medicare Advantage encounter data so that we will be able to assess the impact of the MAC program and the TSOA program on participants enrolled in Medicare Advantage plans.*

Finally, we deliberately chose not to match on previous utilization measures to prevent potential bias stemming from regression to the mean. However, based on Exhibit 15.13 and our examination of trends, it appears that MAC participants and the comparison group may have had different experiences in terms of ED visits, hospitalizations, and readmissions during the pre-enrollment period. This discrepancy raises potential concerns regarding their comparability.

Evaluation Results – Interim Report Survey Analyses

In the fall of 2019, the Washington State Department of Social and Health Services surveyed 46 MAC program participants (22 care recipients and 24 informal caregivers), 548 TSOA pair program participants (218 care recipients and 430 caregivers), and 325 TSOA individual program participants. We analyzed these survey results to measure care recipients' satisfaction with the program.

In general, survey results suggest that both MAC and TSOA programs have successfully targeted people with high needs for supportive care, and satisfaction with both programs has been similarly high. TSOA and MAC care recipients and caregivers reported being satisfied with the program application process, and with services provided by the program. Care recipients indicated that these programs helped them avoid moving to a nursing home or assisted living facility. TSOA and MAC caregivers reported that the program provided them with a respite, reducing the physical and mental toll of caregiving. However, TSOA and MAC caregivers were less likely than care recipients to believe these programs would help prevent the need for more intensive support in a nursing home or assisted living facility. Both TSOA and MAC care recipients and caregivers reported opportunities to improve the program, including improvements to scheduling, service hours, and communication with the agency and TSOA/MAC program staff.

We did not conduct additional survey analyses for the Summative Report. See Chapter 11 of the Interim Report for complete methodology and results.[89]

Summative Evaluation Results – Enrollment

Both the MAC and TSOA programs officially launched in September 2017. During the period from September 2017 to December 2022, the MAC program enrolled 426 unique individuals. The TSOA program saw a total enrollment of 9,898 unique individuals, with 3,299 participants in the TSOA-pair program (in which both older adults and their unpaid caregivers receive services) and 6,599 participants in TSOA-individual program (in which only older adults receive services without unpaid caregivers). See Exhibit 15.3 and Exhibit 15.4.

Exhibit 15.3. Enrollment in MAC and TSOA from Program Launch to the End of the Demonstration Period

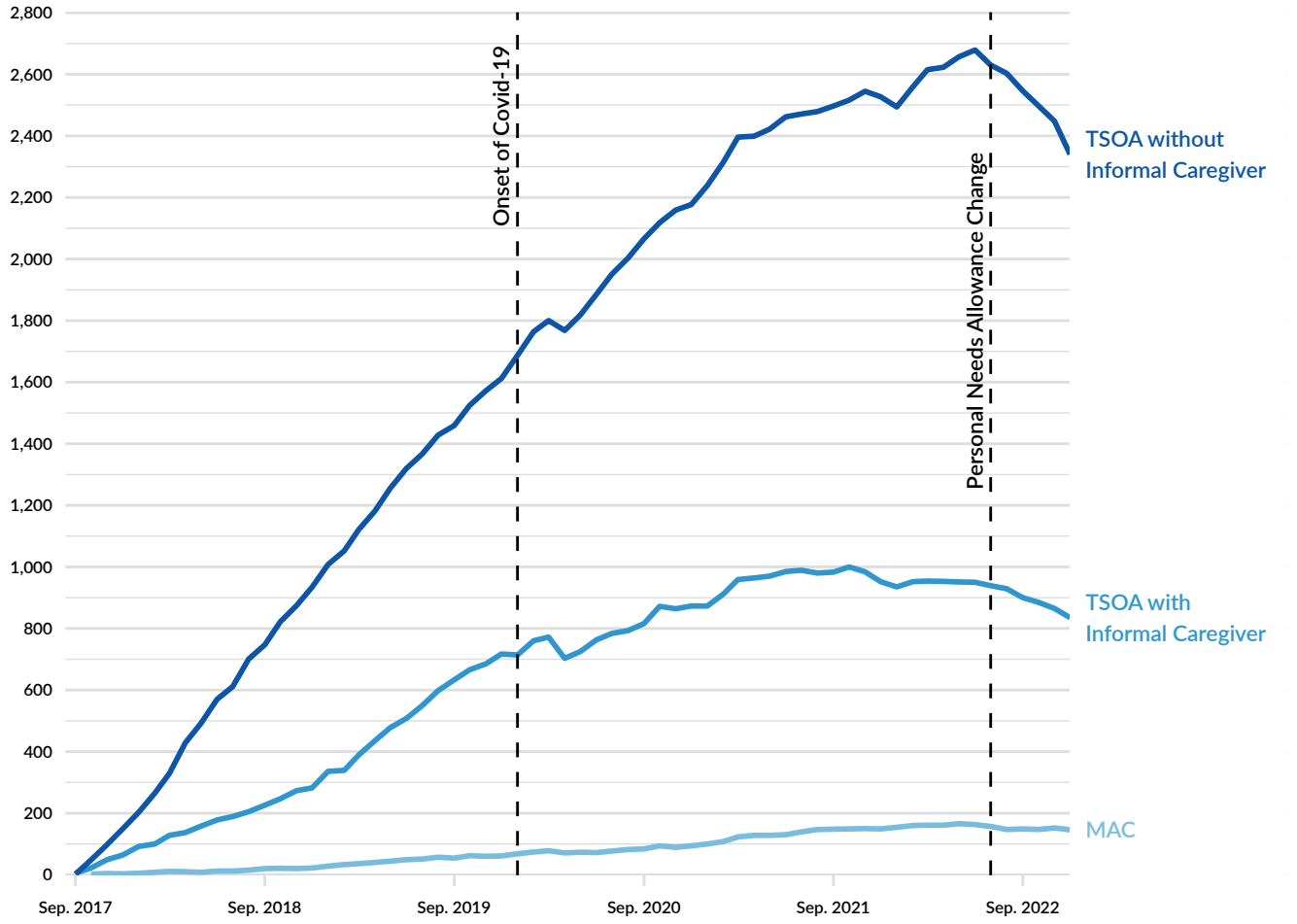
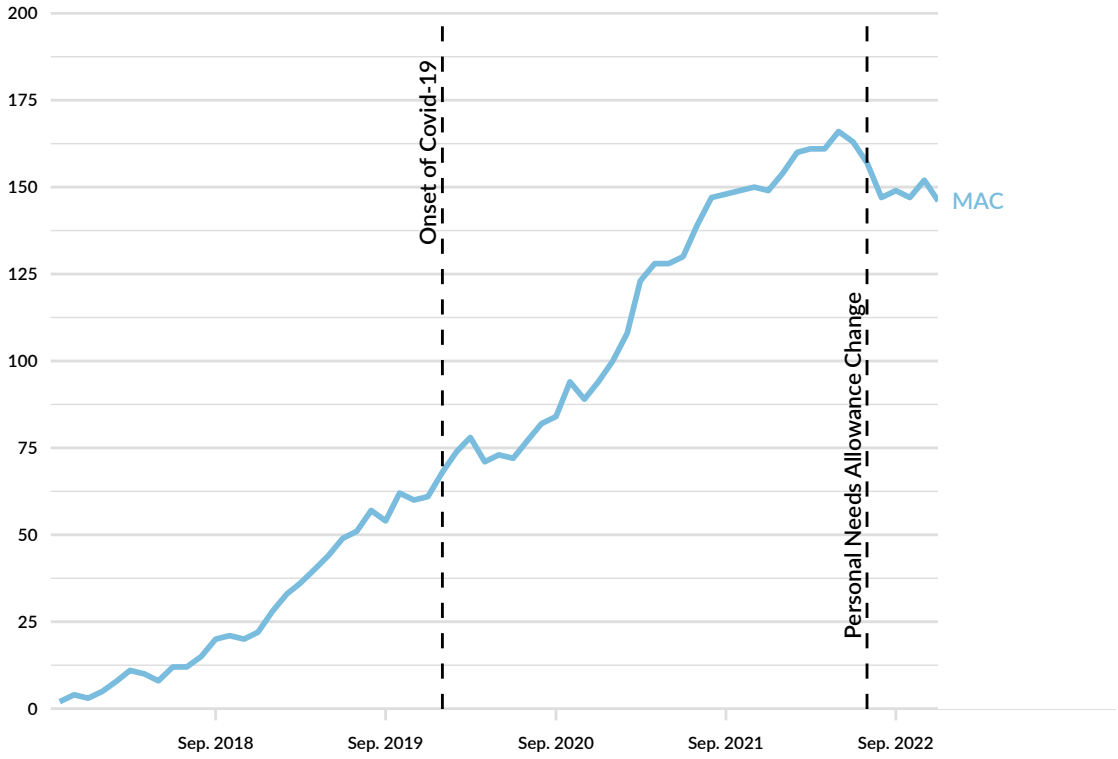


Exhibit 15.4. Enrollment in MAC from Program Launch to the End of the Demonstration Period



The lower enrollment in the MAC program may be explained by the fact that a significant portion of the Apple Health enrollees who would have benefitted from the MAC program had limited assets and incomes that already made them also eligible to receive Apple Health in-home services at no cost. Consequently, these individuals may have had little incentive to enroll in MAC, as they had access to alternative, traditional LTSS options with no charge and more service hours, such as Apple Health in-home services.[89] In contrast, TSOA program enrollment offered a new opportunity for individuals with higher assets and incomes who were responsible for paying the high costs of in-home services to receive no-cost TSOA services.

Enrollments in MAC and TSOA programs have shown a consistent upward trend over time, with two notable exceptions. Following the onset of the COVID-19 pandemic, program enrollment decreased slightly. However, enrollment rebounded within a few months. A more notable decline occurred after July 2022, following the change in the personal needs allowance for Apple Health in-home service users, which increased from $1,071 to $2,523.90 This decline persisted until the end of our study period in December 2022.

The personal needs allowance represents a monthly amount that each beneficiary is allowed to retain from their income while receiving Apple Health in-home services.[91]This allowance plays a crucial role in covering basic necessities such as rents or mortgage, food, and utility bills.

Therefore, a low personal needs allowance can deter individuals from utilizing Apple Health in-home services. It is possible that participants in the TSOA and MAC programs may have found Apple Health in-home services, which typically provide more service hours, to be more financially accessible after the increase in the personal needs allowance. Some TSOA participants may have opted to enroll in Apple Health to transition from the TSOA program to Apple Health in-home services.

Enrollment Duration

Approximately 35 percent of MAC participants discontinued their enrollment within 3 months of service initiation, and 45 percent within 6 months (Exhibit 15.5). Roughly 20 percent and 35 percent of participants opted to discontinue their enrollment within the same 3- and 6-month time frames for the TSOA individual program. In the cases of the TSOA pair program, roughly 25 percent and 45 percent of participants chose to discontinue their enrollment within 3 and 6 months of initiating services.

Exhibit 15.5. Enrollment Duration in MAC and TSOA Program from Program Launch to the End of the Demonstration Period

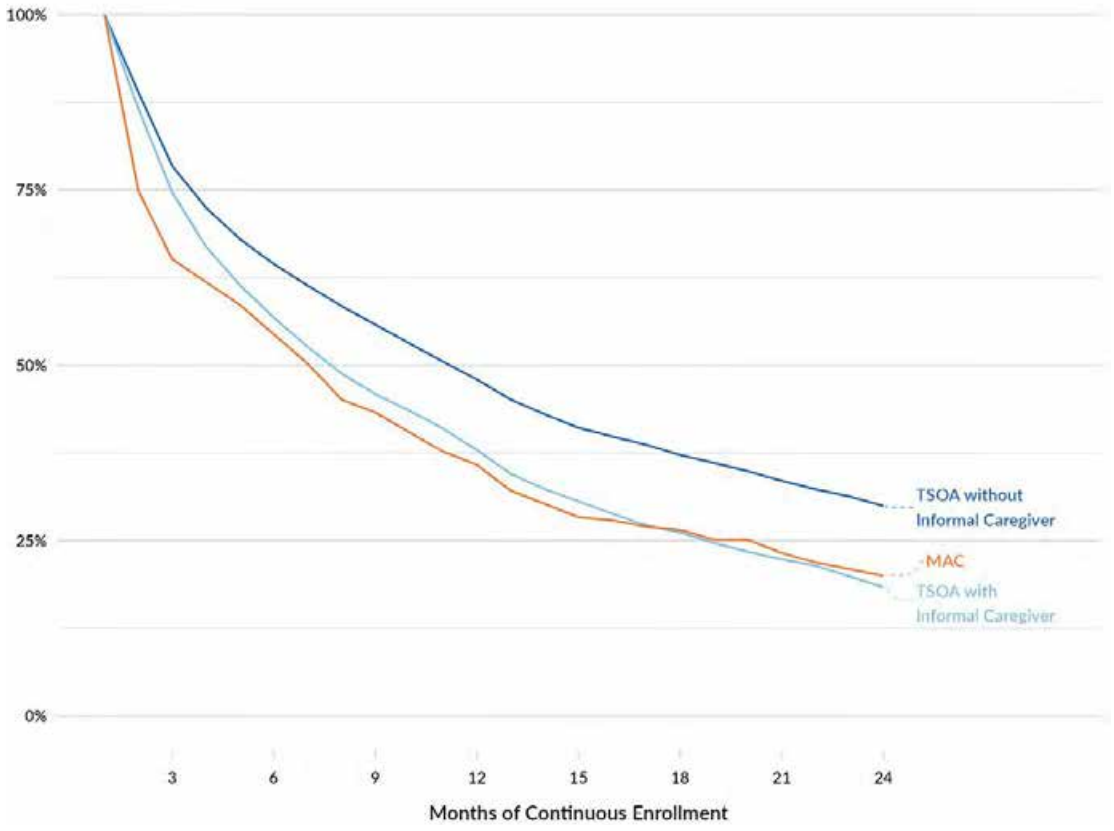


Exhibit 15.6 compares these program enrollment characteristics for MAC and TSOA program participants. Consistent with findings in Exhibit 16.5, we observed that MAC and TSOA pair programs participation was typically shorter in duration than participation in the TSOA individual program. On average, MAC and TSOA pair program participants were enrolled in their programs for 12.0 months, while TSOA individual program participants used services for a longer period, averaging 15.1 months. To facilitate quick access to services while the in-depth, official program application is in process, both MAC and TSOA offer enrollment via presumptive eligibility. This presumptive status allows individuals to quickly start receiving services based on a quick prescreening of functional and financial eligibility. Presumptive eligibility approves MAC and TSOA benefits for up to approximately 60 days.[92,93] Twenty-seven percent of MAC program participants and roughly 45 percent of TSOA program participants enrolled with presumptive status. Before switching to official participation status, presumptive status lasted about two months for all MAC, TSOA individual, and TSOA pair programs.

Exhibit 15.6. Enrollment Characteristics Among MAC and TSOA Participants

Program enrollment	MAC (N= 277)	TSOA without an informal caregiver (N= 4,828)	TSOA with an informal caregiver (N= 2,456)
Length of program enrollment (in months) mean (sd)	12.0 (10.6)	15.1 (14.2)	12.0 (12.4)
% of people who started in presumptive status, N(%)	76 (27.4)	2,103 (43.6)	1,099 (44.7)
Duration in presumptive status before switching to the actual status (in months) mean (sd)	2.3 (2.4)	2.0 (2.0)	1.9 (1.6)

This table includes MAC and TSOA program participants between September 2017 and July 2022 (six months before the end of our latest data). We restricted MAC program participants to those who were enrolled in Apple Health for at least six months before their MAC program participation. Both MAC and TSOA program participants had to participate in the program for at least 6 months to be included.

Summative Evaluation Results – MAC and TSOA Program Participant Outcomes

The MAC and TSOA programs offer a limited range of supportive services for people with functional limitations and their unpaid caregivers. The overarching goals of these programs focused on reducing adverse health events and mitigating the need for more intensive and expensive, traditional LTSS. To assess if the MAC and TSOA programs effectively met these goals, we conducted: (1) descriptive analyses of program participant outcomes, including adverse health events and use of traditional LTSS, at enrollment and at six- and twelve-months post-enrollment in the MAC and TSOA programs, and (2) regression analyses to examine adverse health events and use of traditional LTSS associated with MAC program enrollment.

Metric Selection

We used Medicaid medical/LTSS and Medicare fee-for-service (FFS) claims to examine the outcome measures displayed in Exhibit 15.7.

Exhibit 15.7. Metric Selection for MAC and TSOA Evaluation Measures

Outcome Measures	Target
Outpatient Emergency Department Visits per 1,000 Member Months (NCQA HEDIS or similar state-defined alternative)	↓
Inpatient Admissions per 1,000 Member Months (NCQA HEDIS IHU or similar state-defined alternative)	↓
Plan All-Cause 30-day Readmission Rates (NCQA HEDIS PCR)	↓
Initiation of In-Home Service Use (derived from LTSS claim data currently integrated into the state's ICDB	↓
Assisted Living Facility Entry (derived from LTSS claim data currently integrated into the state's ICDB).	↓
Nursing Facility Entry (state-defined measure derived from nursing home claim data currently integrated into the state's ICDB)	↓
Death (state-defined measure derived from death certificate records currently integrated into the state's ICDB)	↓
Apple Health Enrollment Among TSOA Program Participants	↓
LTSS Expenditures (including MAC/TSOA and traditional LTSS expenditures from ALTSA table, year 2022 inflation-adjusted)	↓

Descriptive Analyses

Our descriptive analyses included people who began receiving MAC and TSOA between September 2017 (when MAC/TSOA were implemented) and June 2022 (six months prior to the end of our dataset). For the descriptive analysis of the MAC program, we restricted the study population to MAC program participants who had been enrolled in Apple Health for at least six months before their enrollment in MAC to reliably evaluate their baseline adverse health events.

Our study population included 277 MAC participants, 2,456 TSOA participants with an informal caregiver, and 4,828 TSOA participants without an informal caregiver. Exhibit 15.8 displays the demographic characteristics of MAC program participants during the year they joined the MAC program. On average, MAC participants were 71.5 years old. The majority identified themselves as White (51.3%) or Asian (27.4%), with Hispanic participants comprising 11.2% of the population. Most participants lived in urban areas (86.8%) and were enrolled in Medicare (i.e., dual-eligible individuals) (75.8%). TSOA participants were not enrolled in Apple Health; thus, we do not have enrollment files by which we could describe their demographic characteristics.

Exhibit 15.8. Demographics at Baseline (i.e., characteristics during the year participants joined the program) Among MAC Program Participants

	MAC (N= 277)
AGE	71.5 (10.0)
SEX	
Male	87 (31.4%)
Female	190 (68.6%)
RACE[1]	
Asian	76 (27.4%)
Black	11 (4.0%)
White	142 (51.3%)
All Other Races, Not Provided	48 (17.3%)
HISPANIC	
Yes	31 (11.2%)
No	222 (80.1%)
Not Provided	24 (8.7%)
RURAL/URBAN	
Rural	36 (13.2 %)
Urban	241 (86.8%)
MEDICARE ENROLLMENT (%)	
Not dually eligible	67 (24.2%)
Dually eligible [2]	210 (75.8%)

[1] All other races were aggregated into "all other races" because their numbers fell below the reporting threshold.
[2] Dually eligible includes both full and partial dual-eligible individuals. We aggregated them into one category because the number of partial dual-eligible individuals fell below the reporting threshold.

Exhibit 15.9 displays emergency department visit rates (per 1,000-member months), hospitalization rates (per 1,000-member months), and readmission rates (%) among MAC program participants at baseline and 0-6 and 7-12 months after enrollment in the MAC program. Additionally, we examined death rates (%) among MAC and TSOA program participants at 0-6- and 7-12-months post-enrollment in the programs. We excluded those who were enrolled in Medicare Advantage (defined as dual eligibility with a third-party liability flag during the study period) when the outcome was ED visits, hospitalization, and 30-day readmission rates.

At baseline, MAC participants exhibited emergency department visit rates of 100 per 1,000 member months, hospitalization rates of 53 per 1,000 member months, and 30-day readmission rates of 11% in the previous six months. Within 0-6 months post-MAC enrollment, emergency department visits decreased from 100 to 64 per 1,000 member months, and hospitalizations decreased from 53 to 26 per 1,000 member months. However, the 30-day readmission rate increased from 11% to 24%. Subsequently, at 7-12 months post-enrollment, emergency department visits rose from 64 to 74 per 1,000 member months but remained lower than baseline.

Within the MAC program, 5.8% of participants died within 6 months of enrollment. For those in the TSOA individual and TSOA pair programs, the mortality rates were 3.1% and 3.7%, respectively. Within TSOA, there was a slight decline in mortality rates observed from 7 to 12 months after enrollment, with the TSOA individual program decreasing to 2.9% and the TSOA pair program to 3.0%.

Exhibit 15.9. Adverse Health Events Before and After MAC and TSOA Program Participation

Adverse Health Events for Six Months Prior to Enrollment	MAC (N= 138)	TSOA without Informal Caregiver	TSOA with Informal Caregiver
ED Visits (per 1,000 mm)	100	NA[1]	NA
Hospitalization (per 1,000 mm)	53	NA	NA
30-day Readmission Rates (%)	11	NA	NA

Adverse Health Events for 0-6 Months Following Enrollment	MAC (N= 96)[3]	TSOA without Informal Caregiver (N= 4,828)	TSOA with Informal Caregiver (N= 2,456)
ED Visits (per 1,000 mm)	64	NA	NA
Hospitalization (per 1,000 mm)	26	NA	NA
30-day Readmission Rates (%)	24	NA	NA
Death[4] (N/%)	11 (5.8)	117 (3.1)	72 (3.7)

Adverse health events for 7-12 months following enrollment	MAC (N= 63)[5]	TSOA without Informal Caregiver (N= 3,474)	TSOA with Informal Caregiver (N= 1,572)
ED Visits (per 1,000 mm)	74	NA	NA
Hospitalization (per 1,000 mm)	***[7]	NA	NA
30-day Readmission Rates (%)	***	NA	NA
Death[6] **(N/%)**	***	65 (2.9)	30 (3.0)

[1] NA is not available; TSOA participants are not enrolled in Apple Health [2] mm is member-month. [3] In these analyses, we further restricted our study population to those who were enrolled in Apple Health for at least six months after the program participation, to allow enough time to measure program participants' outcomes. [4] We restricted the death analysis to those enrolled before Q3 2021 (2 quarters before our last death data, which is available through 12/31/2021) MAC N=191, TSOA Individual N=3,786, TSOA Paired N=1,946 [5] In these analyses, we further restricted our study population to those who were enrolled in Apple Health for at least 12 months after the program participation. [6] We restricted the death analysis to those enrolled before Q1 2021 (4 quarters before our last death data, which is available through 12/31/2021) MAC N=87, TSOA Individual N=2,219, TSOA Paired N=1,008 7 *** Censored due to cell size <10

Given that the primary goal of the MAC and TSOA programs was to meet client's needs while mitigating the need for more intensive, traditional LTSS provided by the Apple Health program, we also examined how Apple Health enrollment, initiation of traditional LTSS use, and LTSS expenditures (which aggregate all MAC/TSOA/traditional LTSS expenditures) changed within 0-6 and 7-12 months of individuals' program participation (see Exhibit 15.10). Within the initial 0-6 and subsequent 7-12 months of enrollment, approximately 6-7% of MAC participants transitioned from the MAC program to receiving traditional in-home services. The average LTSS expenditures decreased as individuals' MAC enrollment duration extended, dropping from $49.14 to $38.73 per member per month.

Approximately 9.7% of TSOA individual program participants became enrolled in Apple Health within 0-6 months and 7-12 months of their TSOA enrollment. However, not all participants initiated traditional LTSS services, such as in-home, community-based, or nursing facility services.

The longer duration of TSOA individual program enrollment was accompanied by an upward trend in LTSS expenditures, rising from $34.80 (per member per month) within 0-6 months of enrollment to $42.63 within 7-12 months of enrollment. TSOA pair program participants displayed a similar pattern in Apple Health enrollment and LTSS use. However, the percentage of individuals enrolled in Apple Health was higher than TSOA individual program participants.

Exhibit 15.10. Apple Health Enrollment, Initiation of Traditional LTSS use, and LTSS Expenditures Among MAC and TSOA Participants

Measured in 0-6 months After Program Enrollment	MAC (N= 277)	TSOA without informal caregiver (N= 4,828)	TSOA with informal caregiver (N= 2,456)
TSOA participants Who Later Enrolled in Apple Health, [1] N(%)	NA[2]	467 (9.7)	259 (10.5)
Traditional LTSS Use			
Initiation of In-Home Services	16 (5.8)	172 (3.6)	92 (3.7)
Initiation of Community-Based LTSS	***	76 (1.6)	47 (1.9)
Nursing Facility Entry	***	126 (2.6)	72 (2.9)
LTSS Spending Per Member, Per Month ($)	49.14	34.80	46.14
Measured in 7-12 months after program enrollment	**MAC (N= 203)**	**TSOA without informal caregiver (N= 3,474)**	**TSOA with informal caregiver (N= 1,572)**
TSOA participants Who Later Enrolled, N(%)	NA[2]	338 (9.7)	190 (12.1)
Traditional LTSS Use			
Initiation of In-Home Services	15 (7.4)	167 (4.8)	84 (5.3)
Initiation of Community-Based LTSS	***3	55 (1.6)	50 (3.2)
Nursing Facility Entry	***3	99 (2.8)	41 (2.6)
LTSS Spending Per Member, Per Month ($)	38.73	42.63	62.60

[1] We excluded cases involving individuals enrolled in Medicaid for partial benefits (such as QMB-only, QI01, SLMN, QDWI, and family planning) as well as those enrolled in the Medically Needy Program. TSOA participants had the option to enroll in the Medically Needy Medicaid Program.[94] [2] NA is not applicable [3] *** Censored due to cell size <10

Given the considerable impact of the COVID-19 PHE on older adults' LTSS use,[95] we conducted separate analyses for the TSOA program using data from pre- and post-onset of the COVID-19 PHE (See Exhibit 15.11). Our findings suggest a consistent pattern in Apple Health enrollment, initiation of traditional LTSS use, and LTSS expenditures before and after the onset of COVID-19, with one notable exception. Prior to the pandemic, we observed an upward trend in LTSS expenditures when a participant was enrolled in the TSOA individual program for a longer duration, with expenditures increasing from $31.35 per member per month within 0-6 months of enrollment to $48.57 within 7-12 months. However, post-COVID-19, this LTSS expenditures increase for participants with longer duration in the program was notably smaller, rising from $37.33 per member per month within 0-6 months post-enrollment to $38.55 within 7-12 post-enrollment.

Exhibit 15.11. Apple Health Enrollment, Initiation of Traditional LTSS Use, and LTSS Expenditures Among TSOA Participants Before and After the Onset of COVID 19[1]

	TSOA without Informal Caregiver		TSOA with Informal Caregiver	
Measured in the First 6 months of Program Enrollment	**Pre-COVID-19 Period (N= 2,043)**	**Post-COVID-19 Period (N= 2,785)**	**Pre-COVID-19 Period (N= 1,057)**	**Post-COVID-19 Period (N= 1,399)**
TSOA participants Who Later Enrolled in Apple Health, [2] N(%)	205 (10.0)	262 (9.4)	107 (10.1)	152 (10.9)
Traditional LTSS Use				
Initiation of In-Home Services	76 (3.7)	96 (3.4)	36 (3.4)	56 (4.0)
Initiation of Community-Based LTSS	31 (1.5)	45 (1.6)	17 (1.6)	30 (2.1)
Nursing Facility Entry	57 (2.8)	69 (2.5)	37 (3.5)	35 (2.5)
LTSS Spending Per Member, Per Month ($)	31.35	37.33	41.25	49.84
	TSOA without Informal Caregiver		**TSOA with Informal Caregiver**	
Measured in Months 7-12 of Program Enrollment (among those enrolled 6 continuous months)	**Pre-COVID-19 Period (N= 1,415)**	**Post-COVID-19 Period (N= 2,059)**	**Pre-COVID-19 Period (N= 640)**	**Post-COVID-19 Period (N= 932)**
TSOA participants Who Later Enrolled in Apple Health, N(%)	149 (10.5)	189 (9.2)	74 (11.6)	116 (12.4)
Traditional LTSS Use				
Initiation of In-Home Services	62 (4.4)	105 (5.1)	30 (4.7)	54 (5.8)
Initiation of Community-Based LTSS	23 (1.6)	32 (1.6)	16 (2.5)	34 (3.6)
Nursing Facility Entry	53 (3.7)	46 (2.2)	22 (3.4)	19 (2.0)
LTSS Spending Per Member, Per Month ($)	48.57	38.55	63.20	62.19

[1] The onset of COVID-19 is defined as after January 1, 2020 [2] We excluded cases involving individuals enrolled in Medicaid for partial benefits (such as QMB-only, QI01, SLMN, QDWI, family planning) as well as those enrolled in the Medically Needy Program. TSOA participants had the option to enroll in the Medically Needy Medicaid Program.[94]

Our analyses had several limitations. First, in our descriptive analyses, we could not assess a certain set of participant outcomes, such as emergency department visits, hospitalizations, and readmissions, for TSOA participants. TSOA participants were at risk of Medicaid enrollment but were not enrolled in Medicaid. Therefore, we could not use Medicaid claims to examine those outcomes. Second, due to the small sample size, it was infeasible to conduct separate analyses for the MAC program using data before or after the onset of COVID-19 onset. However, we conducted separate analyses for the TSOA program using data from pre- and post-onset of the PHE. Finally, approximately 70% of MAC participants were enrolled in Medicare, making them dual-eligible individuals. Because Medicare is the primary payer for dual-eligible individuals, access to Medicare data is crucial for understanding acute health events such as hospitalizations and emergency department visits within the MAC population. While we had access to data from Medicare FFS, we had no access to data from Medicare Advantage plans. Therefore, it was necessary to exclude MAC program participants enrolled in Medicare Advantage plans from our descriptive analyses of three outcomes (hospitalizations, emergency department visits, and readmissions).

Exhibit 15.12. Demographic and Health Characteristics of MAC Participants and Matched Comparison Group

	MAC (N = 205)[1]	Comparison (N = 615)[1]	Pre-matching comparison (N = 3,580,313)[1]
AGE			
55-64 years	58 (28%)	190 (31%)	2,271,824 (63%)
65-74 years	55 (27%)	185 (30%)	890,106 (25%)
75-84 years	74 (36%)	201 (33%)	340,649 (9.5%)
85+ years	18 (8.8%)	39 (6.3%)	77,734 (2.2%)
SEX			
Female	135 (66%)	399 (65%)	1,972,462 (55%)
Male	70 (34%)	216 (35%)	1,607,787 (45%)
Unknown	0 (0%)	0 (0%)	64 (<0.1%)
RACE			
Asian	65 (32%)	195 (32%)	355,296 (9.9%)
White	96 (47%)	288 (47%)	2,361,455 (66%)
All other races, not provided[2]	44 (21%)	132 (21%)	863,562 (24%)
HISPANIC			
Yes	29 (14%)	69 (11%)	352,206 (9.8%)
No	162 (79%)	507 (82%)	2,769,783 (77%)
Not Provided	14 (6.8%)	39 (6.3%)	458,324 (13%)
RURAL/URBAN			
Rural	19 (9.3%)	57 (9.3%)	391,943 (11%)
Urban	186 (91%)	558 (91%)	3,188,370 (89%)
MEDICARE ENROLLMENT			
Not dually eligible	42 (20%)	116 (19%)	1,844,210 (52%)
Dually eligible[3]	163 (80%)	499 (81%)	1,736,103 (48%)
HEALTH RISK CHARACTERISTICS			
Mean Chronic Illness and Disability Payment (CDPS) Risk Score (range: 0-16)	2.30 (2.69)	2.30 (2.68)	0.77 (1.64)
Mean Number of LTSS Risks (range: 0-9)	1.50 (1.63)	1.24 (1.30)	0.28 (0.75)

[1] N (%); Mean (SD) [2] All other races were aggregated because their numbers fell below the reporting threshold. [3] Dually eligible includes both full and partial dual-eligible individuals. We aggregated full and partial dual-eligible individuals into one category because the number of partial dual-eligible individuals fell below the reporting threshold.

Regression Analyses

Our regression analyses used a difference-in-difference approach that compared outcomes for MAC participants before and after enrollment to outcomes of a similar comparison group that did not enroll in MAC during the same time period. We measured changes for MAC participants from a pre-intervention period (the last four quarters before MAC enrollment) to a post-intervention period (the first and second quarters following MAC enrollment). We compared these changes for MAC participants to a matched comparison group, adjusting estimates to account for differences in beneficiary characteristics that could affect the trajectory of outcomes over time.

We identified MAC participants as all Apple Health enrollees enrolled in MAC from Q3 2017 to Q2 2022. For each MAC enrollee, we identified three comparable persons not enrolled in MAC but with similar demographics (age, sex, race and ethnicity, rural residence, Medicare enrollment) and health risk characteristics (CDPS risk score, substance use disorder, and risk for LTSS use) during the quarter right before MAC program enrollment. Our final study population included 205 MAC program participants and 615 individuals in the matched comparison group. MAC program participants and individuals in the matched comparison group had similar demographic characteristics and health status for variables that we matched on. In contrast, the comparison group before matching (which included all non-participants in the MAC program aged 55 or older) had substantially different characteristics from MAC program participants (See Exhibit 15.12). (Note: characteristics of MAC program participants in Exhibit 15.12 differ from those shown in Exhibit 15.8 because the regression and descriptive analysis included different sets of MAC program participants.) See Appendix B for a full definition of ICD-10 diagnosis codes used to define LTSS risks. We also assessed trends in all outcomes over time for MAC participants and the comparison group to ensure that trends for each group were similar before they enrolled in the MAC program. Exhibit 15.13 displays average outcome levels during the pre-and post-enrollment period for MAC participants and the comparison group, along with difference-in-differences estimates.

Exhibit 15.13. The Association Between MAC Program Participation and Outcomes

		MAC Participants		Comparison Group		Δ Pre to Post Period
		Pre	Post	Pre	Post	
Emergency Department Visit Rate (per 1,000 member months) ^	↓	103.3	58.7	59.4	54.6	-40.9
Hospitalizations (per 1,000 member months) ^	↓	46.9	27.5	16.0	21.4	-24.8
Hospital Readmission within 30 Days ^^	↓	19.4	7.0	16.4	21.0	-22.1
Initiation of HCBS Use (%) ^	↓	0.2	4.8	0.5	2.2	2.9
Nursing Facility Entry (%) ^	↓	0.6	1.8	0.1	0.6	0.7
LTSS Spending Per Member, Per Month ^	↓	61.9	79.3	60.1	29.5	48.0

MAC participation was associated with a decline in hospitalization and readmissions and an increase in HCBS initiation. However, a review of trends suggested that the difference-in-differences estimate for hospitalization may reflect temporary changes among MAC participants rather than program effects. Specifically, hospitalizations for MAC participants increased substantially just before enrollment and then declined following enrollment, whereas trends in hospitalization were stable for the comparison population.

Conclusion

We summarize our findings in accordance with the hypotheses we set out to measure:

Hypothesis 1: From baseline to 6-month follow-up, caregivers will show decreased self-report measures of caregiving burden and increased self-report measures of physical and mental health status and quality of life. Our findings from the Interim Report supported this hypothesis. TSOA and MAC care caregivers reported that they were satisfied

with services provided by the program. They also reported that TSOA and MAC programs helped them avoid moving to a nursing home or assisted living facility.

Hypothesis 2: From baseline to 6-month follow-up, care recipients, including TSOA individuals without unpaid caregivers, will show increased self-report measures of physical and mental health status and quality of life. Our findings from the Interim Report supported this hypothesis. TSOA and MAC care caregivers reported that the program provided them with a respite, reducing the physical and mental toll of caregiving.

Hypothesis 3: TSOA program participation led to a reduction in traditional LTSS use and any LTSS expenditures. Our findings were mixed in our assessment of this hypothesis. Within the initial six months of enrollment in the TSOA program, only a small proportion of participants transitioned to Apple Health, with an even smaller portion utilizing traditional LTSS, suggesting that the TSOA program effectively delayed the initiation of traditional LTSS use. Over an extended period of enrollment in the TSOA program, LTSS expenditures trended upward. However, the magnitude of these increases was relatively modest.

Hypothesis 4: MAC program participation was associated with a reduction in adverse health events, traditional LTSS use, and any LTSS expenditures. Our findings were mixed in our assessment of this hypothesis. Participation in the MAC program was associated with a 22% reduction in 30-day hospital readmission rate. However, MAC participation did not result in statistically significant changes in any LTSS expenditures.

In summary, by delivering a limited set of supportive services for people with functional limitations and their unpaid caregivers, the MAC/TSOA initiative appears to have succeeded in delaying the traditional reliance on LTSS and decreasing adverse health events. However, the MAC program encountered challenges with low enrollment. Over five years, it has served roughly 400 individuals, while the TSOA program has reached nearly 10,000 individuals. The MAC program's low enrollment may be attributed to the limited incentives for prospective participants compared to Medicaid in-home services. Conversely, the TSOA program appears to offer more compelling incentives for enrollment.

Moving forward, the state should consider addressing the challenges of low enrollment, particularly within the MAC program, and the relatively high disenrollment rates observed in both the MAC and TSOA programs. Furthermore, ongoing monitoring and evaluation are crucial to ensure the continued positive impact of both programs on the individuals they serve.

MTP Initiative 3

This section evaluates Washington's MTP Initiative 3, Foundational Community Supports (FCS). Initiative 3 consists of two programs: FCS Supportive Housing and FCS Supported Employment.

Chapter 16 includes:

- Assessment of associations between FCS program participation and measures including employment, housing, healthcare utilization and healthcare quality.
- Description of findings from qualitative interviews with program administrators and representatives of FCS provider organizations.
- Information about the FCS Supportive Housing and Supported Employment programs and their implementation.

Notes Across Evaluation Reports

Summative analyses of the FCS program varied in several areas from interim analyses. FCS Supported Employment consistently showed improvements in employment rates across both interim and summative analyses. The impact of the FCS Supported Housing was ambiguous in both interim and summative analyses. Interim analyses for participants enrolled in both FCS programs indicated modest improvements in several health care access and utilization metrics, with the caveat of small sample size; summative analyses indicate stronger improvements in health care access and utilization measures, in addition to improvements in employment.

KEY FINDINGS

Our evaluation of the FCS initiative includes the following findings:

- **Provider network and enrollment.** *The network of contracted FCS providers expanded throughout implementation and included 580 providers as of February 2024. Approximately 6,500 people were enrolled in FCS Supportive Housing as of January 2023, and 2,500 were enrolled in FCS Supported Employment. Another 2,000 people were enrolled in both programs.*
- **Homelessness**. *Participation in FCS Supportive Housing was associated with a slight decline in homelessness overall, an increase in people transitioning out of homelessness, and a substantial decline in people becoming newly homeless. However, the decline in homelessness was not robust to sensitivity analyses and may reflect ongoing improvements in the housing situation of chronically homeless FCS Supportive Housing participants that were unrelated to program participation.*
- **Healthcare utilization and care quality**. *FCS participation was associated with improvements in multiple healthcare utilization and care quality measures, most notably antidepressant medication treatment and acute hospital use, but these findings were sensitive to the alternative sample specification.*
- **Employment**. *Participation in FCS Supported Employment or both FCS Supportive Housing and Supported Employment was associated with moderate to large improvements in employment.*
- **Arrest rate**. *Participation in any of the FCS programs was associated with declines in the arrest rate. However, this result was sensitive to an alternative sample specification using a more comprehensive selection of variables to create a matched comparison group.*
- **Stratification by program entry and COVID period.** *The evidence of program effects was similar for FCS participants accessing the program through HCA compared to the full population. In contrast, we found less association between the FCS program and our outcome measures among enrollees accessing the program through ALTSA. The lack of more program effects in these analyses could reflect differences in the population or a comparatively small sample size. Most associations between program participation and outcomes did not change significantly between the pre-PHE and post-COVID-19 PHE periods.*
- **Administrative burden**. *In many cases, the duration of program benefits for participants was insufficiently short. Though renewal was possible, it increased the administrative burden. Billing for FCS services had specific documentation requirements that were challenging for some FCS providers.*
- **Housing supply**. *Access to the housing stock was restricted. Some providers successfully leveraged existing relationships with landlords; others purchased or leased housing to improve housing access.*
- **COVID-19 PHE**. *The COVID-19 PHE disrupted former in-person contacts with clients and prospective landlords and reduced available housing, creating further challenges to house FCS participants.*

Recommendations

Based on the key findings from the evaluation, we propose the following recommendations:

1. **Review FCS benefit specification and renewal process.** The state should consider extending the current benefit duration and total amount of support because a large majority of FCS enrollees require a longer duration and more hours of support than currently specified. The state should also review the renewal process to identify possible simplifications. These efforts could increase the continuity of FCS service delivery and, thus, successful FCS program participation.

2. **Provide technical billing assistance.** Interview participants reported that FCS service providers, especially social services organizations, sometimes struggled to comply with billing requirements. The state should reach out to FCS providers to offer educational material and technical assistance. The state should also review the current billing process to identify possible simplifications.

3. **Monitor and further examine homelessness among FCS participants, especially those enrolled in FCS Supportive Housing.** We found evidence that the FCS Supportive Housing program may improve the housing situation of participants. However, we could not rule out the possibility that observed improvements may have been unrelated to program participation. A better understanding of the types of services that lead to improvement in housing among this population could help identify effective strategies. The state should consider reaching out to FCS providers who were particularly successful in securing housing for their clients to learn more about their strategies.

Foundational Community Supports

Some Medicaid beneficiaries with complex physical and behavioral health conditions have high social support needs.[96] In particular, these individuals can be at increased risk of homelessness and substance use disorder and experience barriers to employment.[97] Recognizing this population is historically underserved by health systems that may be unequipped to meet their needs through traditional models of health care, Washington implemented the Foundational Community Supports (FCS) program as part of MTP, which included two new sets of benefits: supportive housing and supported employment.

Supportive Housing

Based on the federal Substance Abuse and Mental Health Services Administration's supportive housing model, the FCS Supportive Housing program combines housing services (e.g., assistance with finding housing or financial support for obtaining housing) with health care services such as behavioral health treatment.98–100 Predominantly intended for people with mental illness and substance use disorders who are unhoused or otherwise unstably housed and unable to maintain housing without supportive services, the model combines low-barrier housing assistance, health care, and supportive services to support individuals and families lead more stable lives.

The FCS Supportive Housing program allows the state to reimburse contracted providers a per diem rate for services that include assistance in finding or applying for housing or negotiating with landlords. (The FCS Supportive Housing program was not designed to provide direct rent assistance or replace other housing supports that Medicaid beneficiaries may have been eligible to receive).

Supported Employment

The FCS Supported Employment program is based on the Individual Placement and Support (IPS) model, which helps individuals with serious mental illness who desire employment find and maintain jobs of their choosing.[101] The model emphasizes the integration of employment and health services in community settings, with competitive employment as a goal. The program does not provide or supplement wages directly to participants. FCS services include vocational assessments and job coaching, job seeking or job placement assistance, and skill building for employment retention.[102]

MTP Initiative 3 Approach to Change

Washington designed the new FCS program within the larger MTP. Two agencies, the Health Care Authority (HCA) and the Aging and Long-Term Support Administration (ALTSA), collaborated to oversee Washington's FCS program. HCA oversees about 80 percent of total program enrollees; ALTSA oversees the remaining 20 percent. These agencies serve different populations. ALTSA typically serves older clients with functional disabilities who are dually eligible for Medicaid and Medicare and who may receive nursing home care. The program also serves adults with serious mental illness. HCA serves the general Apple Health (Medicaid) population. These agencies also oversee the program differently. ALTSA beneficiaries are first assigned to a trained ALTSA case manager who screens for program eligibility and determines which services are needed (e.g., housing, employment, or other community resources). HCA relies on the FCS third-party administrator (Amerigroup) for these functions.

Amerigroup is one of Washington's five MCOs. In this role, Amerigroup makes final program eligibility determinations for both HCA and ALTSA's FCS enrollees and manages a provider network of over 600 agencies

across the state. As an MCO, Amerigroup also connects participants to providers in the community and manages other related programs like the Transition Assistance Program. Housing and Employment specialists at provider network agencies directly support and help clients find housing and employment.

Eligibility for FCS services is based on both risk and needs-based criteria (Exhibit 16.1). Apple Health enrollees who are eligible for both FCS Supportive Housing and Supported Employment may enroll in both programs.

Exhibit 16.1. Eligibility Criteria for Foundational Community Supports Supportive Housing and Supported Employment

Criteria	Supportive Housing	Supported Employment
RISK CRITERIA (MUST MEET AT LEAST ONE)	• Chronic homelessness • Frequent institutional contacts or multiple instances of residential care • Frequent turnover of caregiver • Predictive Risk Intelligence (PRISM) score of 1.5 of higher	• Unable to obtain or maintain employment due to age, physical or mental disability or impairment • Frequent episodes of inpatient SUD treatment • Mental health or SUD diagnosis at risk of deterioration
NEEDS-BASED CRITERIA (MUST MEET AT LEAST ONE)	• Mental health need for improvement, stabilization or prevention of deterioration of function resulting from he presence of a mental illness or a long-continuing or indefinite complex physical condition • Need for outpatient SUD treatment • Need for assistance with three or more activities of ADL; or need for hands-on assistance with one or more ADL	• Mental health need for improvement, stabilization or prevention of deterioration of function resulting from the presence of a mental illness • Need for outpatient SUD treatment • Need for assistance with three or more activities of ADL; or need for hands-on assistance with one or more ADL • Physical impairments requiring assistance with basic work-related activities

MTP Initiative 3 Implementation

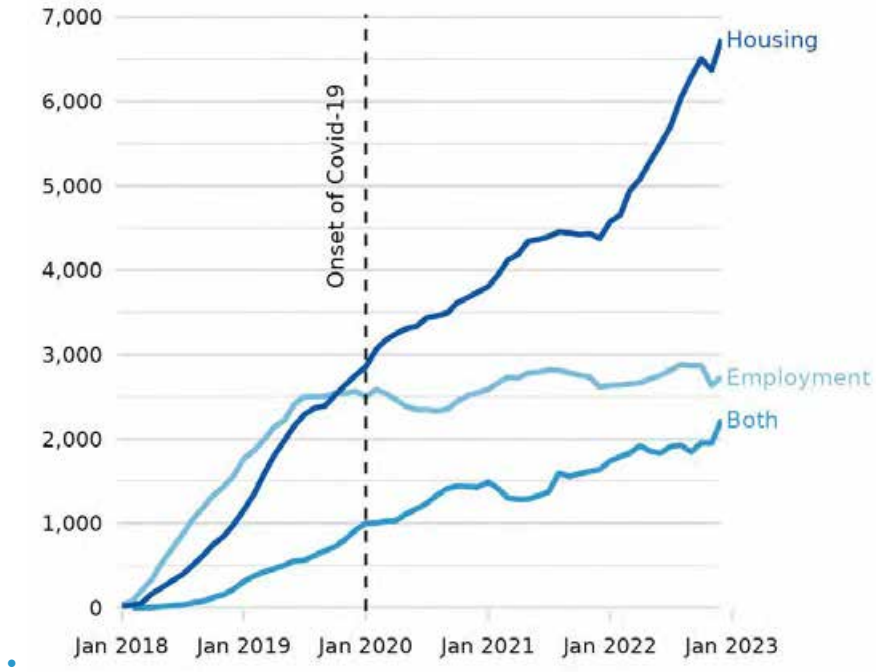
Building the FCS Network

In early implementation, the FCS program experienced difficulties establishing a network of contracted FCS providers; these challenges were greatest in rural areas. Though provider engagement was initially slow, the FCS program network increased across the demonstration period. As of February 2024, 427 sites across Washington provided both supportive employment and supportive employment services, 82 sites provided just supportive employment, and 71 organizations provided just supportive housing services.

FCS Client Enrollment and Service Delivery

The FCS program launched in January 2018. Between 2018 and mid-2019, enrollment increased gradually at a similar pace to about 2,500 participants each for both FCS supportive housing (henceforth FCSH) and FCS supported employment (henceforth FCSE; Exhibit 15.3). Enrollment in FCSE remained largely stable, whereas enrollment for FCSH continued to increase to approximately 7,500 by January 2023. Enrollment in both programs (henceforth FCSB) increased gradually to approximately 2,000 enrollees by January 2023 (Exhibit 16.2).

Exhibit 16.2. Enrollment in FCS Programs Over Time



Upon enrollment, FCS enrollees received an initial assessment, followed by a job or housing search, job or housing placement, and maintenance activities (Exhibit 16.3).

Exhibit 16.3. Supportive Housing and Supported Employment Steps

ASSESSMENT	JOB OR HOUSING SEARCH	JOB OR HOUSING PLACEMENT	MAINTENANCE
• Getting to know client • Completing paperwork and documentation • Helping clients establish cell phones and email	• Determining housing voucher eligibility • Looking for available housing • Connecting with landlords • Getting on housing waiting lists • Looking for available jobs • Connecting with employers	• Job carving with employers • Building relationships with landlords or employers	• Ongoing communication with landlords or employers • Conducting job site or home visits to mediate or support

These steps were customized and aligned with clients' preferences, needs, and interests. For example, some clients needed support establishing cell phone and email accounts to apply for jobs, while others required assistance identifying positions aligned with their interests and speaking with potential employers. Some enrollees at this stage also benefitted from "job carving," which is defined as working with the client and employer to modify an existing job description when a potential applicant cannot perform all duties outlined in the original job description. Once connected with a job or housing, some clients needed minimal ongoing support, while others needed more support, including the specialist's in-person support at job sites and during engagement with landlords.

The FCS Supported Employment benefit permits participants to receive up to 30 hours of services across a six-month period, with options for reauthorization or higher levels of support for participants deemed to have exceptional needs.[103]

Evaluation Approach

Quantitative Methods

The quantitative evaluation approach used a difference-in-differences method that compared outcomes for FCS enrollees before and after enrollment in FCS to outcomes of a similar comparison group that did not enroll in FCS during the same time period. We measured changes for FCS enrollees from a pre-intervention period to a post-intervention period. We selected the last two quarters before the first FCS enrollment as pre-intervention period because they reflected the situation of FCS participants just before enrollment; we selected the third and fourth post-enrollment quarter following first FCS enrollment to ensure a sufficient enrollment time for program effects to be salient. We compared these changes for FCS enrollees to a matched comparison group (described below), adjusting estimates to account for differences in patient characteristics that could affect the trajectory of outcomes over time. For this analysis, we excluded individuals with missing information for variables used in the matching approach. Our analysis also focused on individuals' first enrollment episode because the pre-enrollment period of subsequent enrollment episodes might have been affected by previous enrollment.

We identified FCS enrollees as all Apple Health enrollees who received any FCS service between 2018 and 2022. We distinguished between FCS enrollees who (i) enrolled in supportive housing, (ii) enrolled in supported employment, and (iii) enrolled in both programs.

For every individual in each FCS program group (housing, employment, or both), we identified a person not enrolled in FCS but with comparable demographic and health risk characteristics, using a matching approach similar to the one specified in a preliminary evaluation report of the FCS conducted by Washington State's DSHS. 104 We selected FCS participants and matched Apple Health enrollees who were fully enrolled in Apple Health during the four quarters preceding and following first FCS enrollment.

We did not match on prior utilization measures for our main analysis to avoid possible bias from regression to the mean.[105,106] However, we included a matching approach with key utilization measures as a sensitivity check in our analysis. These were the ED visit rate, arrest rate, employment rate, acute hospital utilization, and chronic homelessness at enrollment. We noted important differences where these were apparent in the results below.

Primary outcome measures included homelessness (currently without housing; whether someone transitioned out of homelessness; whether someone transitioned into homelessness) and employment. Secondary measures included the arrest rate, a measure of access to primary care, ED, hospital and institutional care use measures, and quality measures for mental health, chronic conditions, and SUD – including measures specific to opioid use disorder (OUD).

For each of the three FCS program groups, we further stratified our analysis by system affiliation, separating ALTSA-affiliated enrollees from other Apple Health enrollees served through the HCA (i.e., "HCA-affiliated"). We identified ALTSA-affiliated beneficiaries as Apple Health enrollees who received a Comprehensive Assessment Reporting Evaluation (CARE) within 15 months prior to their first FCS service receipt. All other FCS enrollees were considered HCA-affiliated. We also stratified by pre- and post-COVID-19 PHE period (PHE period), which included FCS participants enrolled before 2019 and after 2020, respectively. For the FCSH population, we further stratified by chronic homelessness

status, defined as being without housing for at least 12 months prior to program entry or four episodes of homelessness in the past 3 years totaling at least 12 months.

We focused on the following four hypotheses:

Hypothesis 1. The FCS program will improve housing and employment among participants.

Hypothesis 2. The FCS program will reduce the risk of criminal justice involvement among participants.

Hypothesis 3. The FCS program will reduce high-intensive care (i.e., ED visits, inpatient admissions, and institutional long-term services and support utilization) among participants.

Hypothesis 4. The FCS programs will increase engagement in supportive preventative care, such as mental health or substance use treatment services, consistent with improved beneficiaries' ability to manage their physical and behavioral health conditions.

Limitations. Our quantitative approach had several limitations. First, outcome trends of the matched comparison group may not adequately reflect counterfactual outcome trends of FCS enrollees, had they not enrolled in the program. We addressed this concern by assessing the sensitivity of results to two matching approaches. Second, we excluded individuals with missing information for variables used for matching, and focused on the first enrollment period. While these exclusions were necessary for our analytic approach, they resulted in a smaller sample size and thus, reduced power. Third, the use of quarterly frequency might have affected results because of continuous enrollment.

Qualitative Methods

Key informants from the ALTSA, HCA, and Amerigroup were interviewed between June and December 2021. Participants were program administrators or individuals with experience delivering technical assistance to service providers. Participants were asked about their experiences providing assistance to program participants and working with provider organizations; they were also asked about model fidelity and implementation successes and challenges.

Key informants from provider organizations that delivered FCS were interviewed between January and February 2022. Provider organizations were purposefully selected to vary on characteristics such as organization type, size, and location. Participant selection and interview guide questions were informed by the administrator interviews. They focused on learning about the clients the organization served, their experiences with billing and providing supportive housing and employment, and how they assessed FCS program success.

All interviews were conducted by an experienced interviewer, followed a semi-structured guide, were approximately 45-60 minutes in duration, recorded, professionally transcribed, and checked for accuracy. The team used an iterative and inductive approach to analyze data, meeting as a group to analyze early interviews to understand emerging findings and develop a codebook. Next, one team member analyzed the remaining data, developed analytic memos, and met weekly with the team to discuss the data. Data were analyzed a second time to conduct a comparative analysis to identify similarities and differences across organizations.

Summative Evaluation Results

Characteristics of the Study Population

The study population included 5,598 people who were enrolled in the supportive housing program, 4,639 people who were enrolled in the supported employment program, 2,368 people who were enrolled in both programs, and, for each of these groups, the same number of matched non-FCS enrollees (Exhibit 15.3). Sample sizes were smaller compared to enrollment numbers because of exclusions noted above. Most FCS enrollees accessed the program through HCA. FCSH enrollees were more likely to be older, female, Black, and experienced chronic homelessness compared to the other two FCS groups. They also had the highest average CPDS score. Compared to the FCSH and FSCB enrollees, FCSE enrollees were more likely to be enrolled in ALTSA and Asian or Hispanic. FCSB enrollees were more likely to be diagnosed with a substance use disorder and classified as American Indian or Alaska Native compared to the other two groups. The FCS and comparison population had balanced demographics, system affiliation, and health risk characteristics. FCS participants were more likely to reside in rural areas and to be chronically homeless than individuals in the comparison group.

Exhibit 16.4. Characteristics of the Study Population

Characteristic	FCS Housing, N = 5,598[1]	Housing Matched Comparison, N = 5,598[1]	FCS Employment, N = 4,639[1]	Employment Matched Comparison, N = 4,639[1]	FCS Both, N = 2,368[1]	Both Matched Comparison, N = 2,368[1]	All Non-Participant Member-Quarters N = 8,854,1371
AGE %							
18-24 years	5.7%	5.7%	15%	15%	11%	11%	16%
25-34 years	21%	21%	29%	29%	31%	31%	25%
35-44 years	23%	23%	23%	23%	27%	27%	20%
45-54 years	24%	24%	19%	19%	20%	20%	16%
55-64 years	22%	22%	13%	13%	9.8%	9.8%	17%
65+ years	4.4%	4.4%	1.5%	1.5%	1.1%	1.1%	6.8%
SEX %							
Female	59%	48%	52%	51%	55%	49%	57%
Male	41%	52%	48%	49%	45%	51%	43%
Unknown	0%	0%	0%	0%	0%	0%	<0.1%
RACE %							
American Indian/ Alaska Native	6.8%	6.8%	4.1%	4.1%	7.1%	7.1%	4.4%
Asian	0.6%	0.6%	1.8%	1.8%	0.9%	0.9%	5.8%
Black	11%	11%	9.3%	9.3%	8.5%	8.5%	8.0%
Hawaiian or Pacific Islander	1.0%	1.0%	1.3%	1.3%	0.8%	0.8%	2.6%
White	75%	75%	75%	75%	76%	76%	65%
All Other Races, Not Provided	5.6%	5.6%	8.9%	8.9%	6.4%	6.4%	14%

Exhibit 16.4. Characteristics of the Study Population (continued)

Characteristic	FCS Housing, N = 5,598[1]	Housing Matched Comparison, N = 5,598[1]	FCS Employment, N = 4,639[1]	Employment Matched Comparison, N = 4,639[1]	FCS Both, N = 2,368[1]	Both Matched Comparison, N = 2,368[1]	All Non-Participant Member-Quarters N = 8,854,1371
HISPANIC %							
Yes	8.7%	8.8%	11%	11%	9.9%	9.8%	14%
No	87%	76%	82%	72%	86%	76%	74%
Not Provided	4.2%	15%	7.2%	17%	4.2%	14%	11%
RURAL/URBAN %							
Rural	13%	9.4%	15%	9.3%	12%	8.8%	11%
Urban	87%	91%	85%	91%	88%	91%	89%
Missing	122	69	70	67	48	33	228,414
SYSTEM AFFILIATION %							
ALTSA-affiliated	16%	16%	18%	18%	9.2%	9.2%	
HCA-affiliated	84%	84%	82%	82%	91%	91%	
HEALTH RISK CHARACTERISTICS %							
Mean CDPS Risk Score	2.14	2.14	1.64	1.64	1.85	1.85	0.63
SUD Diagnosis	34%	34%	24%	24%	45%	45%	6.8%
SMI/SED Diagnosis	39%	18%	39%	18%	40%	21%	12%
Chronically Homeless	32%	11%	12%	9.3%	29%	12%	6.1%

[1] %; Mean

People Receiving FCS Supportive Housing Services

Enrollment in FCSH was associated with a small decline in homelessness, a small increase in people transitioning out of homelessness, and a moderate decline in people transitioning into homelessness (Exhibit 16.5). The FCSH population had a much higher rate of homelessness than the comparison population, consistent with higher rates of chronic homelessness. They also experienced an increase in homelessness prior to enrollment, followed by a strong decline after enrollment, while homelessness declined slightly over time for the comparison population (Exhibit 16.6). FCSH enrollment was further associated with reductions in the arrest rate, ED visits and acute hospital use, and improvements in antidepressant medication treatment. However, measures of mental health treatment penetration, substance use disorder treatment for people with treatment need, initiation in alcohol or other drug treatment, and opioid use disorder treatment for people with treatment needs got worse for FCSH enrollees compared to those not enrolled in the program. Of these substance use disorder treatment for people with treatment need and initiation in alcohol and other drug treatment improved for FCSH participants and their comparison group. However, the improvement was greater for the comparison group, resulting in a negative association between program entry and these outcomes.

In sensitivity analyses that included pre-enrollment utilization measures to create the matched sample, FCSH participation was associated with a decline in transitioning into homelessness and an increase in ED visits. Associations for other measures were not statistically significant.

Exhibit 16.5. Changes in Outcomes for Participants in FCS Supportive Housing Services

		FCS Participants		Comparison Group		Δ Pre to Post Period
		Pre	Post	Pre	Post	
Homelessness	↓	51.5	48.0	15.7	14.0	-1.9
Transition Out of Homelessness		8.9	11.2	10.2	9.4	3.2
Transition In to Homelessness	↓	13.4	5.6	1.8	1.2	-7.1*
Employment (Age 18 to 64)		24.7	23.3	39.5	38.6	-0.4
Arrest Rate (Age 18 to 64)	↓	23.7	16.3	10.5	8.2	-4.9*
Adults' Access to Primary Care		88.5	90.7	85.6	88.6	-0.8
Mental Health Treatment Penetration		70.3	73.0	54.6	56.9	0.3
Antidepressant Medication for Adults (12 Weeks) ^		49.9	50.8	65.4	59.3	6.0
Antidepressant Medication for Adults (6 Months) ^		34.3	36.7	52.1	43.3	10.1*
Antipsychotic Medication for People with Schizophrenia ^		49.3	50.5	59.1	53.7	6.1
30-Day Hospital Readmission for a Psychiatric Condition ^	↓	9.5	9.2	7.4	10.0	-4.0
Controller Medication for Asthma ^		41.8	43.2	46.4	51.2	-2.1
Eye Exam for People with Diabetes		36.0	32.5	41.8	38.5	-0.2
Hemoglobin A1c Testing for People with Diabetes		69.7	67.5	79.3	77.0	-0.1
Nephropathy Screening for People with Diabetes		84.2	82.9	86.0	87.4	-2.7
Emergency Department Visit Rate (per 1,000 member months)	↓	236.0	217.3	101.5	109.3	-26.5*
Acute Hospital Use among Adults (per 1,000 members)	↓	177.1	177.5	102.5	133.5	-27.4*
Hospital Readmission within 30 Days	↓	9.3	9.4	8.0	7.8	-0.4
Ratio of Home and Community-Based Care Use to Nursing Facility Use ^^		***	***	***	***	***
Substance Use Disorder Treatment for People with Treatment Need		54.4	55.8	60.6	68.5	-6.7*
Alcohol or Other Drug Treatment: Initiation		47.3	47.4	49.9	55.3	-4.7
Alcohol or Other Drug Treatment: Engagement		19.7	20.7	26.7	26.1	2.5
People with an Opioid Prescription >= 50mg MED ^	↓	28.1	26.1	35.7	29.9	5.8

Stratifying by chronic homelessness status. There was no association between FCSH participation and homelessness when stratifying by chronic homelessness status, but homelessness rates among the chronically homelessness population in the FCHS and comparison group declined substantially (Exhibits 16.7 and 16.8). Thus, the overall decline in homelessness for FCSH participants relative to the comparison group in our main analysis may be a result of the fact that FCSH participants were more likely to be chronically homeless prior to program entry relative to the comparison population (32 percent versus 11 percent, Exhibit 16.4).

Exhibit 16.6. Trends in Homelessness for the FCS Supportive Housing and Comparison Population

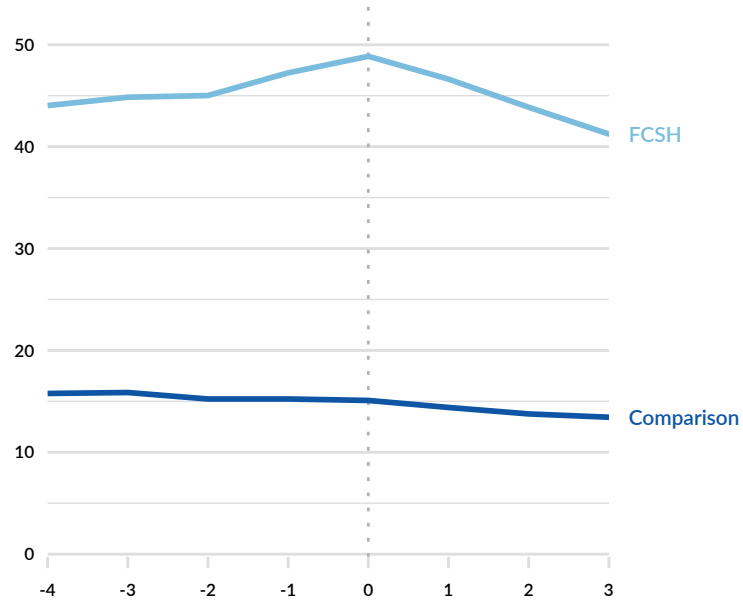


Exhibit 16.7. Trends in Homelessness for the FCS Supportive Housing and Comparison Population who were Chronically Homeless at Enrollment

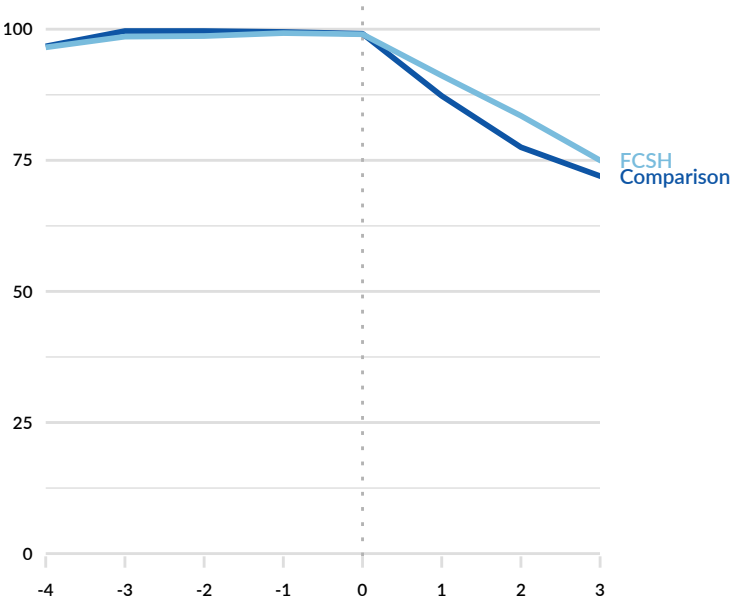
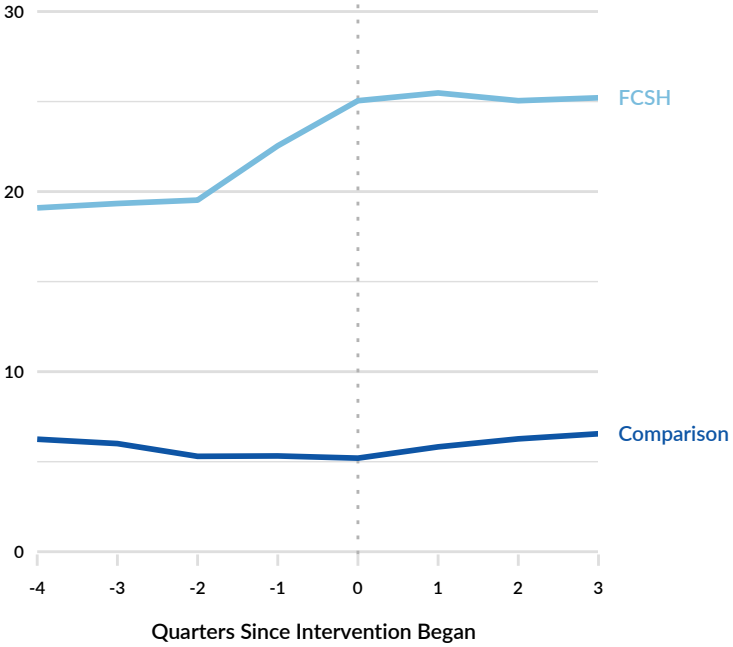


Exhibit 16.8. Trends in Homelessness for the FCS Supportive Housing and Comparison Population who were Not Chronically Homeless at Enrollment



Stratifying by entry point. Results for those who entered FCSH through HCA were similar to findings for the overall population. Among individuals who accessed FCSH through ALTSA, associations between program participation and homelessness, transitioning out of homelessness,, the arrest rate, antidepressant medication for adults, substance use disorder treatment for people with treatment need and OUD treatment for people with treatment need were not statistically significant. Other results were similar compared to the full sample.

Exhibit 16.9. Changes in Outcomes for HCA Participants in FCS Supportive Housing Services

		FCS Participants		Comparison Group		Δ Pre to Post Period
		Pre	Post	Pre	Post	
Homelessness	↓	51.5	48.0	15.7	14.0	-1.9
Transition Out of Homelessness		8.9	11.2	10.2	9.4	3.2
Transition In to Homelessness	↓	13.4	5.6	1.8	1.2	-7.1*
Employment (Age 18 to 64)		24.7	23.3	39.5	38.6	-0.4
Arrest Rate (Age 18 to 64)	↓	23.7	16.3	10.5	8.2	-4.9*
Adults' Access to Primary Care		88.5	90.7	85.6	88.6	-0.8
Mental Health Treatment Penetration		70.3	73.0	54.6	56.9	0.3
Antidepressant Medication for Adults (12 Weeks) ^		49.9	50.8	65.4	59.3	6.0
Antidepressant Medication for Adults (6 Months) ^		34.3	36.7	52.1	43.3	10.1*
Antipsychotic Medication for People with Schizophrenia ^		49.3	50.5	59.1	53.7	6.1
30-Day Hospital Readmission for a Psychiatric Condition ^	↓	9.5	9.2	7.4	10.0	-4.0
Controller Medication for Asthma ^		41.8	43.2	46.4	51.2	-2.1
Eye Exam for People with Diabetes		36.0	32.5	41.8	38.5	-0.2
Hemoglobin A1c Testing for People with Diabetes		69.7	67.5	79.3	77.0	-0.1
Nephropathy Screening for People with Diabetes		84.2	82.9	86.0	87.4	-2.7
Emergency Department Visit Rate (per 1,000 member months)	↓	236.0	217.3	101.5	109.3	-26.5*
Acute Hospital Use among Adults (per 1,000 members)	↓	177.1	177.5	102.5	133.5	-27.4*
Hospital Readmission within 30 Days	↓	9.3	9.4	8.0	7.8	-0.4
Ratio of Home and Community-Based Care Use to Nursing Facility Use ^^		***	***	***	***	***
Substance Use Disorder Treatment for People with Treatment Need		54.4	55.8	60.6	68.5	-6.7*
Alcohol or Other Drug Treatment: Initiation		47.3	47.4	49.9	55.3	-4.7
Alcohol or Other Drug Treatment: Engagement		19.7	20.7	26.7	26.1	2.5

16.10. Changes in Outcomes for ALTSA Participants in FCS Supportive Housing Services

		FCS Participants		Comparison Group		Δ Pre to Post Period
		Pre	Post	Pre	Post	
Homelessness	↓	20.9	17.8	13.1	11.9	-2.0
Transition Out of Homelessness ^		18.8	22.2	7.9	9.2	1.8
Transition In to Homelessness	↓	7.5	2.6	1.4	1.1	-4.6*
Employment (Age 18 to 64)		5.1	3.1	24.1	21.9	0.2
Arrest Rate (Age 18 to 64)	↓	6.6	5.8	5.7	5.1	-0.2
Adults' Access to Primary Care		96.9	96.2	87.7	93.3	-6.3*
Mental Health Treatment Penetration ^		69.2	70.9	46.3	50.1	-2.2
Antidepressant Medication for Adults (12 Weeks) ^		63.4	61.2	72.8	64.3	2.3
Antidepressant Medication for Adults (6 Months) ^		51.0	48.9	67.2	49.0	12.3
Antipsychotic Medication for People with Schizophrenia ^^		65.2	70.0	66.0	53.9	18.2
30-Day Hospital Readmission for a Psychiatric Condition ^^	↓	***	***	***	***	***
Controller Medication for Asthma ^^		37.7	64.7	45.9	63.6	24.2
Eye Exam for People with Diabetes ^		41.8	42.1	46.1	49.2	-2.9
Hemoglobin A1c Testing for People with Diabetes ^		71.7	75.6	79.9	79.3	4.4
Nephropathy Screening for People with Diabetes ^		90.6	92.3	87.2	90.0	-1.6
Emergency Department Visit Rate (per 1,000 member months)	↓	356.3	327.1	106.3	137.8	-60.8
Acute Hospital Use among Adults (per 1,000 members)	↓	382.0	363.6	169.9	283.6	-126.6*
Hospital Readmission within 30 Days ^	↓	12.9	14.1	9.6	8.0	3.3
Ratio of Home and Community-Based Care Use to Nursing Facility Use ^^		92.1	95.7	68.2	72.5	-7.1
Substance Use Disorder Treatment for People with Treatment Need ^		28.8	32.8	33.1	41.9	-3.6
Alcohol or Other Drug Treatment: Initiation ^		54.6	49.2	44.5	52.4	-15.0*
Alcohol or Other Drug Treatment: Engagement ^		10.2	9.9	13.0	11.3	1.4
People with an Opioid Prescription >= 50mg MED ^^	↓	38.6	34.4	19.7	20.6	-2.3
People with an Opioid Prescription >= 90mg MED ^^	↓	***	***	***	***	***
Opioid Use Disorder Treatment for People with Treatment Need ^		39.1	41.8	53.0	55.8	1.2

Stratifying by PHE period. The association between FCSH participation and employment improved from the pre- to post-PHE periods (Exhibit 16.11). Associations for other measures did not exhibit statistically significant differences between the pre- and post-COVID-19 PHE period.

Exhibit 16.11. Changes in the Association Between FCS Supportive Housing Participation, Pre- and Post-COVID-19 PHE Period

		Difference in Differences		
		Pre-PHE (2017-2019)	Post-PHE (2020-2022)	Δ
Homelessness	↓	-3.4	-1.1	2.3
Transition Out of Homelessness		5.8	1.2	-4.6
Transition In to Homelessness	↓	-7.0	-6.2	0.8
Employment (Age 18 to 64)		-4.5	2.0	6.4*
Arrest Rate (Age 18 to 64)	↓	-3.4	-4.6	-1.2
Adults' Access to Primary Care		-0.4	-2.5	-2.1
Mental Health Treatment Penetration		2.1	-1.2	-3.3
Antidepressant Medication for Adults (12 Weeks)		6.4	3.5	-3.6
Antidepressant Medication for Adults (6 Months)		8.2	10.7	2.2
Antipsychotic Medication for People with Schizophrenia ^		9.3	7.5	-1.5
30-Day Hospital Readmission for a Psychiatric Condition ^	↓	1.6	-4.6	-5.7
Controller Medication for Asthma ^		-0.2	2.4	4.0
Eye Exam for People with Diabetes		0.4	-1.2	-1.5
Hemoglobin A1c Testing for People with Diabetes		-0.5	2.9	3.3
Nephropathy Screening for People with Diabetes		0.4	-4.2	-4.6
Emergency Department Visit Rate (per 1,000 member months)	↓	-24.5	-36.2	-11.7
Acute Hospital Use among Adults (per 1,000 members)	↓	-37.2	-47.3	-10.2
Hospital Readmission within 30 Days	↓	3.2	-1.4	-4.6
Ratio of Home and Community-Based Care Use to Nursing Facility Use ^		***	***	***
Substance Use Disorder Treatment for People with Treatment Need		-4.0	-7.5	-3.5
Alcohol or Other Drug Treatment: Initiation		-5.0	-6.4	-1.3
Alcohol or Other Drug Treatment: Engagement		1.2	3.0	1.9
People with an Opioid Prescription >= 50mg MED ^	↓	-1.7	9.7	10.7
People with an Opioid Prescription >= 90mg MED ^	↓	1.1	1.5	-1.0
Opioid Use Disorder Treatment for People with Treatment Need		-0.9	-4.4	-3.5

People Receiving FCS Supported Employment Services

Enrollment in FCSE was associated with a substantial improvement in employment of 11.1 percentage points (Exhibits 16.12 and 16.13). Other improvements associated with program participation included reductions in transitioning into homelessness the arrest rate, 30-day hospital readmissions for a psychiatric condition, acute hospital use and 30-day hospital readmissions, and increases in antipsychotic and antidepressant medication treatment as well as engagement in alcohol or other drug treatment. Program participation was associated with relative decreases in adult access to primary care, substance use disorder treatment for people with treatment need and OUD treatment for people with treatment need. While all three measures improved for the FCSE group over time, improvements were stronger for the matched comparison population, resulting in these negative associations.

In sensitivity analyses that included pre-enrollment utilization measures to create the matched sample, FCSE participation remained strongly associated with increased employment. Other results were more sensitive to the alternative sample specification. Specifically, homelessness was positively associated with FCSE enrollment, the arrest rate was not associated with FCSE participation, and FCSE participation was generally not associated with measures of healthcare utilization, with the exception of increased engagement in alcohol or other drug treatment and decreased access to primary care.

Exhibit 16.12. Changes in Outcomes for Participants in FCS Supported Employment Services

		FCS Participants		Comparison Group		Δ Pre to Post Period
		Pre	Post	Pre	Post	
Homelessness	↓	21.1	20.0	13.4	12.9	-0.7
Transition Out of Homelessness		13.9	12.2	9.0	9.6	-2.2
Transition In to Homelessness	↓	3.8	1.7	2.1	0.9	-1.0*
Employment (Age 18 to 64)		38.9	48.8	43.1	41.8	11.1*
Arrest Rate (Age 18 to 64)	↓	12.6	8.5	8.4	7.0	-2.6*
Adults' Access to Primary Care		93.5	94.2	85.2	89.4	-3.5*
Mental Health Treatment Penetration		83.1	86.3	58.0	60.2	0.9
Antidepressant Medication for Adults (12 Weeks) ^		56.8	58.1	64.1	60.9	3.5
Antidepressant Medication for Adults (6 Months) ^		44.3	44.7	54.4	46.3	7.6
Antipsychotic Medication for People with Schizophrenia ^		68.6	72.4	70.7	59.4	16.5*
30-Day Hospital Readmission for a Psychiatric Condition ^	↓	11.6	9.3	5.0	8.9	-8.2*
Controller Medication for Asthma ^		56.5	59.8	48.5	57.7	-2.5
Eye Exam for People with Diabetes ^		48.2	47.4	42.6	43.0	-1.4
Hemoglobin A1c Testing for People with Diabetes ^		79.4	80.1	78.2	80.0	-1.0
Nephropathy Screening for People with Diabetes ^		86.4	85.1	83.3	85.0	-2.9
Emergency Department Visit Rate (per 1,000 member months)	↓	129.5	115.4	89.9	97.9	-22.0*
Acute Hospital Use among Adults (per 1,000 members)	↓	84.9	87.6	83.7	111.6	-25.5*
Hospital Readmission within 30 Days ^	↓	9.7	7.6	7.3	8.6	-4.5*
Ratio of Home and Community-Based Care Use to Nursing Facility Use ^^		98.7	99.5	89.2	83.6	8.8
Substance Use Disorder Treatment for People with Treatment Need		50.0	54.8	53.5	60.2	-4.1*
Alcohol or Other Drug Treatment: Initiation		42.7	47.1	48.8	48.6	4.5
Alcohol or Other Drug Treatment: Engagement		20.3	25.4	24.0	23.3	6.0*
People with an Opioid Prescription >= 50mg MED ^	↓	24.2	18.8	30.1	28.5	0.4
People with an Opioid Prescription >= 90mg MED ^	↓	9.6	7.2	14.0	11.8	-1.4
Opioid Use Disorder Treatment for People with Treatment Need		59.0	60.3	70.6	73.1	-3.8

Stratifying by entry point. Program participation was associated with improvements in employment and arrests for individuals who accessed FCSE through either ALTSA or HCA. Other results were also fairly similar for these two groups compared to the full sample. There were fewer significant associations for FCSE participants who accessed services through ALTSA, however, this result may reflect a smaller sample size.

Exhibit 16.13. Trends in employment for the FCS Supported Employment and Comparison Population

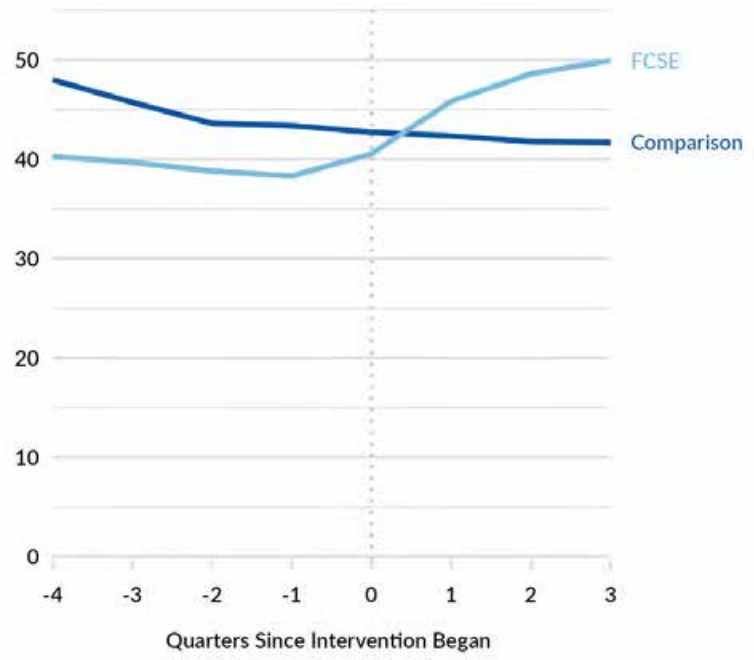


Exhibit 16.14. Changes in Outcomes for HCA Participants in FCS Supported Employment Services

		Pre	Post	Pre	Post	
Homelessness	↓	24.0	23.1	14.1	13.5	-0.4
Transition Out of Homelessness		13.1	12.0	8.9	9.2	-1.3
Transition In to Homelessness	↓	4.6	2.0	2.1	0.9	-1.4*
Employment (Age 18 to 64)		44.8	55.3	44.1	42.9	11.7*
Arrest Rate (Age 18 to 64)	↓	14.3	9.9	9.5	7.7	-2.6*
Adults' Access to Primary Care		93.3	94.1	85.1	89.4	-3.4*
Mental Health Treatment Penetration		85.1	88.9	59.0	62.0	0.8
Antidepressant Medication for Adults (12 Weeks) ^		55.7	57.4	61.4	60.1	2.9
Antidepressant Medication for Adults (6 Months) ^		42.7	43.7	51.3	46.1	6.3
Antipsychotic Medication for People with Schizophrenia ^		63.5	65.4	71.4	60.2	13.7
30-Day Hospital Readmission for a Psychiatric Condition ^	↓	9.8	7.9	4.3	6.8	-5.9
Controller Medication for Asthma ^		58.0	59.5	45.6	56.5	-6.0
Eye Exam for People with Diabetes ^		47.2	44.7	40.5	42.2	-4.5
Hemoglobin A1c Testing for People with Diabetes ^		83.4	83.9	77.9	80.2	-2.1
Nephropathy Screening for People with Diabetes ^		85.4	83.4	81.2	84.0	-4.6
Emergency Department Visit Rate (per 1,000 member months)	↓	122.1	109.0	89.1	95.2	-19.1*
Acute Hospital Use among Adults (per 1,000 members)	↓	69.4	72.4	74.1	100.6	-23.3*
Hospital Readmission within 30 Days ^	↓	8.8	6.7	7.2	7.9	-3.7
Ratio of Home and Community-Based Care Use to Nursing Facility Use ^^		***	***	***	***	***
Substance Use Disorder Treatment for People with Treatment Need		53.6	58.1	57.0	64.6	-4.6*
Alcohol or Other Drug Treatment: Initiation		42.0	47.7	49.3	48.7	6.5*
Alcohol or Other Drug Treatment: Engagement		21.2	26.5	24.5	24.8	5.3
People with an Opioid Prescription >= 50mg MED ^	↓	24.4	16.4	28.2	29.2	-4.5
People with an Opioid Prescription >= 90mg MED ^	↓	9.9	5.5	15.4	14.0	-3.6
Opioid Use Disorder Treatment for People with Treatment Need		61.9	62.6	73.1	76.1	-4.1

Exhibit 16.15. Changes in Outcomes for ALTSA Participants in FCS Supported Employment Services

		FCS Participants		Comparison Group		Δ Pre to Post Period
		Pre	Post	Pre	Post	
Homelessness	↓	8.3	6.2	10.4	10.2	-1.9
Transition Out of Homelessness ^		24.8	16.2	9.6	12.1	-10.9
Transition In to Homelessness	↓	***	***	***	***	***
Employment (Age 18 to 64)		13.0	19.8	38.6	37.1	8.3*
Arrest Rate (Age 18 to 64)	↓	5.2	2.4	3.9	3.8	-2.8*
Adults' Access to Primary Care		94.4	94.5	85.6	89.4	-3.7*
Mental Health Treatment Penetration ^		74.2	73.6	53.9	52.0	1.0
Antidepressant Medication for Adults (12 Weeks) ^		64.6	64.8	73.4	64.9	3.8
Antidepressant Medication for Adults (6 Months) ^		55.9	54.2	65.1	47.3	8.9
Antipsychotic Medication for People with Schizophrenia ^^		77.0	85.8	67.6	55.8	25.7
30-Day Hospital Readmission for a Psychiatric Condition ^^	↓	***	***	***	***	***
Controller Medication for Asthma ^^		50.8	60.8	58.6	63.3	19.3
Eye Exam for People with Diabetes ^		49.9	52.6	47.3	45.0	5.2
Hemoglobin A1c Testing for People with Diabetes ^		73.0	73.2	78.8	79.6	0.3
Nephropathy Screening for People with Diabetes ^		88.0	88.3	88.3	87.4	0.7
Emergency Department Visit Rate (per 1,000 member months)	↓	162.3	144.1	93.2	110.0	-34.8
Acute Hospital Use among Adults (per 1,000 members)	↓	153.6	155.2	126.3	160.6	-35.0
Hospital Readmission within 30 Days ^	↓	11.9	10.1	7.6	11.1	-7.2
Ratio of Home and Community-Based Care Use to Nursing Facility Use ^^		98.7	99.6	80.0	74.1	11.3
Substance Use Disorder Treatment for People with Treatment Need ^		28.7	32.8	30.8	33.0	-1.7
Alcohol or Other Drug Treatment: Initiation ^		47.7	41.9	45.4	48.3	-6.8
Alcohol or Other Drug Treatment: Engagement ^		13.1	16.8	20.5	13.2	10.9
People with an Opioid Prescription >= 50mg MED ^^	↓	23.7	23.0	35.0	26.9	11.0
People with an Opioid Prescription >= 90mg MED ^^	↓	***	***	***	***	***
Opioid Use Disorder Treatment for People with Treatment Need ^		40.0	43.4	46.0	46.5	-2.4

Stratifying by COVID-19 PHE period. The association between FCSE participation and homelessness and transitioning out of homelessness improved between the pre- and post-PHE period, whereas the association between FCSE participation and access to primary care and substance use disorder treatment for people with treatment need got worse between the pre- and post-PHE period.

Exhibit 16.16. Changes in the Association Between FCS Supported Employment Participation During Pre- and Post-COVID-19 PHE Period

		Pre-PHE (2017-2019)	Post-PHE (2020-2022)	Δ
Homelessness	↓	0.9	-2.1	-3.0
Transition Out of Homelessness		-5.3	1.4	6.5
Transition In to Homelessness	↓	-1.4	-0.6	0.8
Employment (Age 18 to 64)		10.2	11.9	1.8
Arrest Rate (Age 18 to 64)	↓	-3.5	-1.8	1.7
Adults' Access to Primary Care		-1.6	-5.2	-3.6*
Mental Health Treatment Penetration		-2.2	2.5	4.6
Antidepressant Medication for Adults (12 Weeks)		4.4	3.0	-2.0
Antidepressant Medication for Adults (6 Months)		8.8	6.7	-2.6
Antipsychotic Medication for People with Schizophrenia ^		18.2	14.6	-3.0
30-Day Hospital Readmission for a Psychiatric Condition ^	↓	-11.0	-7.3	4.0
Controller Medication for Asthma ^		-8.6	0.8	15.9
Eye Exam for People with Diabetes ^		-4.2	2.0	5.8
Hemoglobin A1c Testing for People with Diabetes ^		0.1	-2.8	-2.9
Nephropathy Screening for People with Diabetes ^		0.6	-7.4	-7.7
Emergency Department Visit Rate (per 1,000 member months)	↓	-30.1	-14.6	15.5
Acute Hospital Use among Adults (per 1,000 members)	↓	-28.7	-22.6	6.1
Hospital Readmission within 30 Days	↓	-6.8	-2.6	4.0
Ratio of Home and Community-Based Care Use to Nursing Facility Use ^		***	***	***
Substance Use Disorder Treatment for People with Treatment Need		-1.1	-6.8	-5.8
Alcohol or Other Drug Treatment: Initiation		6.5	2.3	-3.9
Alcohol or Other Drug Treatment: Engagement		5.2	6.3	0.7
People with an Opioid Prescription >= 50mg MED ^	↓	-0.5	3.1	4.2
People with an Opioid Prescription >= 90mg MED ^	↓	-4.0	3.2	7.1
Opioid Use Disorder Treatment for People with Treatment Need		-0.8	-5.9	-5.4

People Receiving Both FCS Supportive Housing and Supported Employment Services

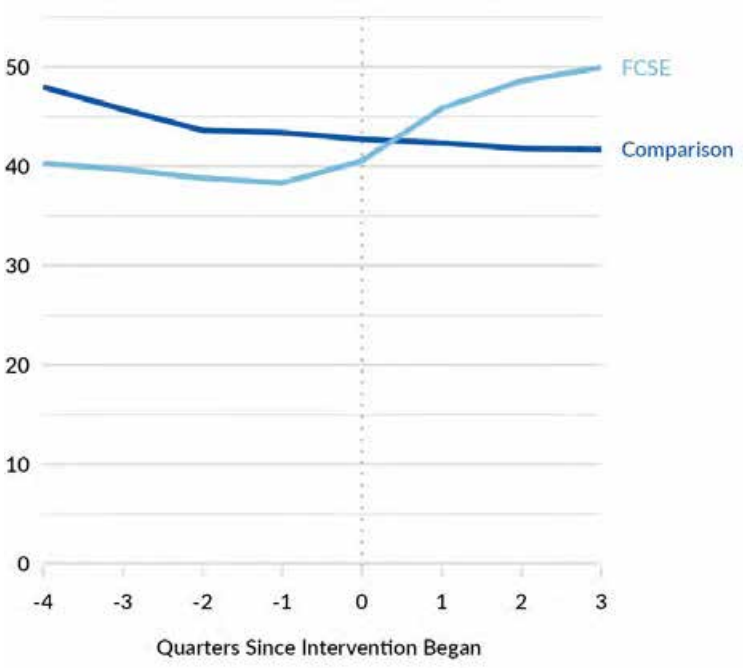
Enrollment in FCSB was associated with a moderate increase in homelessness but a decrease in transitioning into homelessness, an increase in employment, and a decrease in the arrest rate (Exhibit 16.17). Homelessness for the FCSB population increased prior to program entry relative to the comparison population and then declined, and the positive association thus likely reflected increases not associated with the program (Exhibit 16.18). Other improvements associated with program participation included increases in antidepressant and antipsychotic medication treatment and engagement in alcohol and other drug treatment, as well as a decline in acute hospital use.

Exhibit 16.17. Changes in Outcomes for Participants Enrolled in FCS Supportive Housing and Supported Employment Services

		FCS Participants		Comparison Group		Δ Pre to Post Period
		Pre	Post	Pre	Post	
Homelessness	↓	45.6	47.8	17.4	16.2	3.4*
Transition Out of Homelessness ^		10.1	10.5	11.3	9.9	1.9
Transition In to Homelessness	↓	13.0	6.7	2.6	1.4	-5.1*
Employment (Age 18 to 64)		39.6	45.9	43.3	41.7	7.9*
Arrest Rate (Age 18 to 64)	↓	28.6	21.3	13.6	11.4	-5.1*
Adults' Access to Primary Care		89.6	94.3	85.5	89.8	0.5
Mental Health Treatment Penetration		77.3	84.3	58.0	62.8	2.2
Antidepressant Medication for Adults (12 Weeks) ^		49.1	54.0	60.5	57.0	7.0
Antidepressant Medication for Adults (6 Months) ^		34.1	38.2	49.6	39.0	13.2*
Antipsychotic Medication for People with Schizophrenia ^		50.6	51.0	66.4	53.5	14.7
30-Day Hospital Readmission for a Psychiatric Condition ^	↓	10.6	10.7	11.2	11.1	0.0
Controller Medication for Asthma ^^		45.1	50.5	37.8	47.5	-9.9
Eye Exam for People with Diabetes ^		37.2	42.4	37.3	37.5	4.9
Hemoglobin A1c Testing for People with Diabetes ^		76.8	76.6	76.6	77.7	-1.4
Nephropathy Screening for People with Diabetes ^		84.8	87.9	81.5	85.1	-1.0
Emergency Department Visit Rate (per 1,000 member months)	↓	255.0	241.2	104.0	112.9	-20.6
Acute Hospital Use among Adults (per 1,000 members)	↓	139.1	132.4	93.3	136.5	-49.5*
Hospital Readmission within 30 Days ^	↓	9.6	10.2	9.5	7.9	1.8
Ratio of Home and Community-Based Care Use to Nursing Facility Use ^^		94.3	96.3	75.9	71.1	15.5
Substance Use Disorder Treatment for People with Treatment Need		58.5	67.2	63.5	73.3	-1.6
Alcohol or Other Drug Treatment: Initiation ^		45.5	51.7	46.5	55.3	-2.5
Alcohol or Other Drug Treatment: Engagement ^		21.4	29.5	25.5	25.8	8.5*
People with an Opioid Prescription >= 50mg MED ^^	↓	21.0	23.9	33.3	29.4	6.1
People with an Opioid Prescription >= 90mg MED ^^	↓	***	***	***	***	***
Opioid Use Disorder Treatment for People with Treatment Need		60.2	60.4	72.7	75.2	-2.9

In sensitivity analyses that included pre-enrollment utilization measures to create the matched sample, FCSB participation was associated with an increase in homelessness, ED visits, and engagement in alcohol or other drug treatment. Other results were not statistically significant.

Exhibit 16.18. Changes in Outcomes for HCA Participants Enrolled in FCS Supportive Housing and Supported Employment Services



Stratifying by entry point. Results for those who entered FCSB through HCA were similar to findings for the overall population. Findings were more mixed for those who accessed FCSB through ALTSA. Specifically, program participation was associated with improvements in antidepressant medication, eye exams for people with diabetes, and acute hospital use. However, mental health treatment penetration and initiation in alcohol or other drug treatment were negatively associated with program participation. Some of these findings might reflect chance due to small sample sizes for measures of specific populations (see Appendix for details). Results for acute hospital use and substance use treatment for people with treatment needs reflected diverging trends for the FCSB and comparison population, with these outcomes declining for the FCSB group but increasing for the comparison group between the pre- and post-enrollment period (Exhibits 16.21 and Exhibit 16.22)

Exhibit 16.19. Changes in Outcomes for ALTSA Participants enrolled in FCS Supportive Housing and Supported Employment Services

		FCS Participants		Comparison Group		Δ Pre to Post Period
		Pre	Post	Pre	Post	
Homelessness	↓	48.1	50.7	17.8	16.6	3.9*
Transition Out of Homelessness ^		9.9	10.5	11.9	10.4	2.1
Transition In to Homelessness	↓	14.0	7.3	2.7	1.5	-5.5*
Employment (Age 18 to 64)		41.7	48.5	44.4	42.3	8.9*
Arrest Rate (Age 18 to 64)	↓	30.7	23.0	14.4	12.0	-5.2*
Adults' Access to Primary Care		88.8	93.9	85.3	89.6	0.8
Mental Health Treatment Penetration		76.8	84.9	58.5	63.0	3.6
Antidepressant Medication for Adults (12 Weeks) ^		48.1	52.2	59.2	56.2	6.4
Antidepressant Medication for Adults (6 Months) ^		33.3	36.3	48.6	38.7	12.4*
Antipsychotic Medication for People with Schizophrenia ^		45.8	44.5	64.9	52.4	11.9
30-Day Hospital Readmission for a Psychiatric Condition ^	↓	11.0	10.5	10.9	12.2	-3.0
Controller Medication for Asthma ^^		43.3	46.7	34.6	45.4	-11.2
Eye Exam for People with Diabetes ^		34.8	37.0	32.8	34.3	0.9
Hemoglobin A1c Testing for People with Diabetes ^		78.0	77.6	75.1	78.3	-4.2
Nephropathy Screening for People with Diabetes ^		82.9	87.7	79.6	84.7	-0.9
Emergency Department Visit Rate (per 1,000 member months)	↓	248.1	232.6	104.6	115.0	-22.8
Acute Hospital Use among Adults (per 1,000 members)	↓	121.4	126.5	87.6	121.7	-28.7
Hospital Readmission within 30 Days ^	↓	9.0	9.8	9.4	8.2	1.3
Ratio of Home and Community-Based Care Use to Nursing Facility Use ^^		***	96.7	76.4	83.1	***
Substance Use Disorder Treatment for People with Treatment Need		59.9	69.3	65.6	75.7	-1.3
Alcohol or Other Drug Treatment: Initiation ^		45.1	51.7	47.3	55.1	-1.0
Alcohol or Other Drug Treatment: Engagement ^		21.3	30.2	26.4	26.2	9.7*
People with an Opioid Prescription >= 50mg MED ^^	↓	18.7	24.7	34.5	32.0	9.0
People with an Opioid Prescription >= 90mg MED ^^	↓	***	***	***	***	***
Opioid Use Disorder Treatment for People with Treatment Need		60.9	61.8	73.8	76.2	-2.4

Stratifying by COVID-19 PHE period. The association between program participation and transitioning into homelessness as well as access to primary care got worse between the pre- and post-PHE periods.

Exhibit 16.20. Changes in the Association Between FCS Supportive Housing and Supported Employment Participation During Pre- and Post-COVID-19 PHE Period

		FCS Participants		Comparison Group		Δ Pre to Post Period
		Pre	Post	Pre	Post	
Homelessness ^	↓	21.1	19.7	12.8	12.4	-0.9
Transition Out of Homelessness ^^		***	***	***	***	***
Transition In to Homelessness ^	↓	***	***	***	***	***
Employment (Age 18 to 64) ^		18.3	19.6	32.3	35.3	-1.6
Arrest Rate (Age 18 to 64) ^	↓	8.0	4.6	5.5	5.5	-3.4
Adults' Access to Primary Care ^		97.6	98.4	87.7	91.5	-3.0
Mental Health Treatment Penetration ^		82.3	78.4	52.4	60.4	-11.9
Antidepressant Medication for Adults (12 Weeks) ^^		60.3	81.0	69.2	64.2	23.9
Antidepressant Medication for Adults (6 Months) ^^		43.1	67.2	56.9	41.5	34.7*
Antipsychotic Medication for People with Schizophrenia ^^		***	***	***	***	***
30-Day Hospital Readmission for a Psychiatric Condition ^^	↓	***	***	***	***	***
Controller Medication for Asthma ^^		***	***	***	***	***
Eye Exam for People with Diabetes ^^		45.0	60.0	57.7	50.5	22.7
Hemoglobin A1c Testing for People with Diabetes ^^		73.0	73.4	83.3	75.0	8.9
Nephropathy Screening for People with Diabetes ^^		91.0	88.6	89.7	86.8	-1.2
Emergency Department Visit Rate (per 1,000 member months) ^	↓	323.9	325.5	98.5	92.1	2.0
Acute Hospital Use among Adults (per 1,000 members) ^	↓	314.2	190.4	150.2	282.8	-254.2*
Hospital Readmission within 30 Days ^^	↓	13.1	13.1	10.5	6.0	5.3
Ratio of Home and Community-Based Care Use to Nursing Facility Use ^^		***	***	***	***	***
Substance Use Disorder Treatment for People with Treatment Need ^		38.0	34.9	31.8	36.0	-6.8
Alcohol or Other Drug Treatment: Initiation ^^		52.7	51.8	32.0	57.8	-29.8*
Alcohol or Other Drug Treatment: Engagement ^^		***	***	***	***	***
People with an Opioid Prescription >= 50mg MED ^^	↓	***	***	***	***	***
People with an Opioid Prescription >= 90mg MED ^^	↓	***	***	***	***	***
Opioid Use Disorder Treatment for People with Treatment Need ^^		47.3	34.4	48.3	48.3	-9.3

Exhibit 16.21. Trends in Acute Hospital Use (per 1,000 members) for ALTSA Participants Enrolled in FCS Supportive Housing and Supported Employment Services

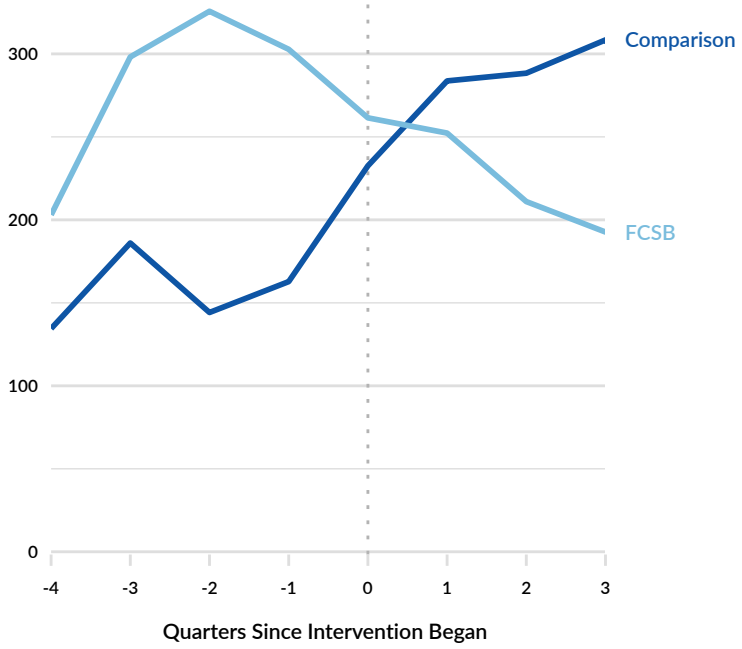


Exhibit 16.22. Trends in Substance Use Disorder Treatment for People with Treatment Need for ALTSA Participants Enrolled in FCS Supportive Housing and Supported Employment Services

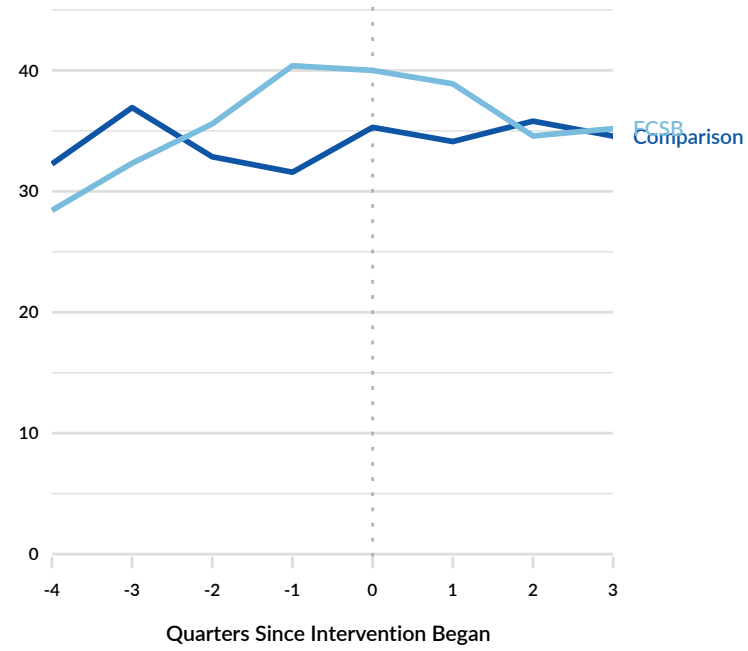


Exhibit 16.23. Changes in the Association Between FCS Supportive Housing and Supported Employment Participation During Pre- and Post-COVID-19 PHE Period

		Pre-PHE (2017-2019)	Post-PHE (2020-2022)	Δ
Homelessness	↓	3.8	3.2	-0.7
Transition Out of Homelessness		2.2	1.3	-1.1
Transition In to Homelessness	↓	-8.9	-2.9	6.1*
Employment (Age 18 to 64)		4.7	10.0	5.3
Arrest Rate (Age 18 to 64)	↓	-3.6	-6.0	-2.5
Adults' Access to Primary Care		3.1	-1.2	-4.3
Mental Health Treatment Penetration		3.6	2.3	-1.3
Antidepressant Medication for Adults (12 Weeks) ^		16.2	0.7	-15.4
Antidepressant Medication for Adults (6 Months) ^		20.7	7.9	-13.6
Antipsychotic Medication for People with Schizophrenia ^		22.9	7.9	-13.8
30-Day Hospital Readmission for a Psychiatric Condition ^	↓	3.7	0.4	-0.7
Controller Medication for Asthma ^^		-0.1	-11.6	-7.6
Eye Exam for People with Diabetes ^		3.8	6.1	1.3
Hemoglobin A1c Testing for People with Diabetes ^		-1.8	-1.7	-0.4
Nephropathy Screening for People with Diabetes ^		-3.8	0.6	4.0
Emergency Department Visit Rate (per 1,000 member months)	↓	-27.4	-16.3	11.3
Acute Hospital Use among Adults (per 1,000 members)	↓	-58.5	-43.8	14.6
Hospital Readmission within 30 Days ^	↓	4.8	-0.3	-4.6
Ratio of Home and Community-Based Care Use to Nursing Facility Use ^^		***	***	***
Substance Use Disorder Treatment for People with Treatment Need		1.6	-3.7	-5.3
Alcohol or Other Drug Treatment: Initiation		-3.9	-2.0	1.7
Alcohol or Other Drug Treatment: Engagement		6.1	10.6	4.1
People with an Opioid Prescription >= 50mg MED ^^	↓	14.2	-8.2	-20.1
People with an Opioid Prescription >= 90mg MED ^^	↓	***	***	***
Opioid Use Disorder Treatment for People with Treatment Need		0.3	-5.1	-5.2

FCS Program Implementation

Program Design

Client Needs and Program Design

Key informants from provider organizations reported that the six-month and 30 hours of support that the FCS benefit offered was, in their experience, insufficient to get clients housing and employment. These clients were often transient and living with behavioral health issues that could stall progress and prevent them from consistently engaging in services. As such, service providers needed time to help clients find housing or employment. For example, among enrollees entering the program between January 1, 2018, and June 30, 2020, more than 70% had more than six months of consecutive enrollment in FCS. While service providers could apply for an "Exception to the Rule" justification and request additional time, key informants reported that approvals took months, exceeding the six-month limit, and led to service and billing lapses. Service providers reported minimal use of the "Exception to the Rule" and found applying for a renewal easier.

Service providers also reported that housed or employed beneficiaries required renewals to receive maintenance services (e.g., support keeping their housing or job). Renewing every six months was the only mechanism by which organizations were permitted to continue to bill for these services. The renewal process was perceived to be an administrative burden that contributed to coverage and service lapses, as well as delays or denials of reimbursement for rendered services.

Provider Organization Experience

Provider organizations had variable access to housing stock. While the program provided housing support, the support was susceptible to housing stock levels, which, while low overall, varied across the state. More experienced organizations leveraged prior relationships with landlords to secure client housing. These organizations also purchased buildings or globally leased units, which allowed them to better control and access housing. Smaller and less experienced organizations did not have the established relationships, expertise, and funding to make these acquisitions or obtain financing to keep units in good condition.

Fidelity reviews functioned as learning collaboratives. Supportive housing and employment programs were designed based on national programs, as described above, and there was an effort to adhere to these models. State administrators and the provider organizations delivering client services were aware of these programs but did not have processes in place to ensure fidelity to these models. Instead, state administrators reported using "fidelity reviews" to share best practices, train and teach organizations about the models, and provide opportunities for self-assessment and reflection. The service providers that we interviewed found the fidelity reviews useful. State administrators and service providers reported that there was not a mechanism in the program's design to assure and measure consistency across participating sites or fidelity to the national programs' models.

Organizations' experiences with implementing FCS varied. FCS services were provided by three types of organizations: traditional health care organizations (e.g., primary care practices), behavioral health agencies, and social service organizations. Organizations differed in what services they provided (supportive housing, supportive employment, or both) and in their prior experience delivering these services. Some organizations had been providing similar services for years, making the program a natural addition. Others were delivering these services for the first time and had to build new skills. This experience made a difference in how organizations implemented FCS.

Billing was particularly challenging for social service organizations. Billing for FCS has a unique structure and documentation requirements that most provider organizations found challenging to learn. Billing was particularly difficult for social service organizations. Organizations that had never billed for Medicaid services spent administrative time and resources learning the billing system and conducting resubmissions. They also experienced denied claims and reimbursement delays, which were challenging to endure financially. Additionally, the billing system was complicated and varied between the supportive housing and employment programs. Provider organizations that were not sensitive to the billing structure, which only permitted billing in specific increments, were potentially losing revenue that would be important to sustaining their programs.

Reimbursable services needed to be tied to beneficiaries. By participating in FCS, provider organizations took on additional housing and employment support services. While these organizations were paid for this work when they were tied to a beneficiary, important and time-consuming tasks, including outreach and relationship-building with landlords and employers, were not billable services unless they were connected to a specific beneficiary. Therefore, some of the efforts necessary for the success of FCS were not reimbursable, which service providers reported was a financial challenge.

Notes, Challenges, and Lessons Learned

Several factors contextualize FCS evaluation findings:

FCS Supported Employment Demonstrated Strongest Improvements in Outcomes. Several factors may have contributed to the success of the FCS Supported Employment program specifically:

FCS Supported Employment provider familiarity with Medicaid billing. FCS Supported Employment providers delivering IPS services were generally more experienced with Medicaid billing processes compared to their counterparts in FCS-Housing, which eased the transition and allowed for quicker integration into the MTP/FCS structure. This familiarity likely may have reduced administrative barriers and enabled more rapid scaling and impact.

Future implementers should consider providing additional supports to service providers with fewer transferable skills that would prepare them for the steep learning curve commonly experienced by groups new to Medicaid billing.

FCS Supported Employment is grounded in a strongly established evidence base and infrastructure. Individual Placement and Support (IPS), the employment model used within FCS-Employment, has been in place for over 20 years and is backed by a strong research foundation originating from Dartmouth University. This longstanding evidence base has facilitated a smoother implementation process and widespread buy-in from employment support providers. Additionally, IPS has a structured fidelity review process, an implementation manual, and centralized training resources—all of which have contributed to consistent delivery and quality oversight.

FCS Supported Employment metrics—such as job placement and retention—are generally more straightforward to track and report than housing stability or clinical outcomes.

FCS Supported Employment benefitted from training and development capacity. During program ramp-up, FCS Supported Employment training was centralized, which supported consistency. Trainers and supervisors had access to structured guidance and action plans through IPS. In contrast, Permanent Supportive Housing (PSH) services under FCS-Housing have not yet had access to the same level of coordinated infrastructure, which may have contributed to more varied implementation experiences.

Future implementers of similar programs should consider centralizing implementation-related training and develop structured guidance whenever possible.

In MTP 2.0, Washington State is working to support more consistent and coordinated infrastructure for the FCS Supported Housing program.

FCS Supported Employment-ALTSA efforts to increase utilization rates. In response to lower than anticipated utilization rates of FCS Supported Employment services among ALTSA clients, ALTSA program managers explicitly shifted their focus from increasing enrollment to increasing utilization rates. ALTSA program managers pursued this goal through working to understand root causes of barriers to service utilization. One of the top barriers identified was client nonresponse to service provider outreach.

Future implementers should consider building strong relationship with service providers, in addition to other strategies that will support clients with more barriers to transitioning from program enrollment to service utilization. This may include state staff capacity to follow up with clients over time and offer support. It may also include compensating service providers for making enrolled client outreach attempts—which was not a billable service under MTP's FCS.

Future implementers should consider addressing both clients and providers need for supports around benefit planning.

The COVID-19 PHE impacted FCS implementation. The COVID-19 PHE had various impacts on FCS at different time points throughout its implementation. Supportive housing and employment training activities were previously offered in person, which was essential for making connections with prospective landlords and employers. Meetings with clients were also previously held in person and were important for building relationships with clients. During the pandemic, the shift to virtual meetings may have impacted landlord, employer, and client engagement.

The COVID-19 PHE led to increased housing prices and reduced turnover in housing units, making it more difficult to house individuals. For supportive employment, service provider staff noted that potential employers, such as retailers and restaurants, closed temporarily or permanently due to COVID-19-related restrictions, reducing staff and hours and making new job placements challenging. By the end of 2021 and into 2022, the labor market changed. Labor shortages made part-time positions more appealing to employers, which was desirable for supportive employment clients and workers with disabilities. Employers became more willing to hire individuals with different needs or tailored job duties to leverage an individual's specific skills (i.e., light job carving), which could give clients more choices and better job opportunities.

Conclusion

Our summary of quantitative findings follows the hypotheses described above.

Hypothesis 1. The FCS program will improve housing and employment among participants. We found some support for this hypothesis. Participation in FCS Supported Employment was clearly associated with increases in employment. Participation in FCS Supportive Housing was also associated with improvements in housing, but additional analyses suggested that associations may reflect ongoing changes unrelated to program participation.

Hypothesis 2. The FCS program will reduce the risk of criminal justice involvement among participants. We found some evidence in support of this hypothesis. FCS program participation was associated with declines in the arrest rate, however, this finding was sensitive to alternative sample specification using a more comprehensive selection of variables for matching.

Hypothesis 3. The FCS program will reduce high-intensive care (i.e., ED visits, inpatient admissions, and institutional long-term services and support utilization) among participants. We found supportive evidence that participation in the FCS program reduced acute hospital use, however, this result was sensitive to alternative sample specification. Participation in FCS Supportive Housing or Supported Employment was also associated with reductions in ED visits; however, this result was also sensitive to alternative sample specification.

Hypothesis 4. The FCS programs will increase engagement in supportive preventative care, such as mental health or substance use treatment services, consistent with improved beneficiaries' ability to manage their physical and behavioral health conditions. We found support for this hypothesis for some mental health treatment measures, most notable antidepressant medication but not for other measures. Results were again not robust to an alternative sample specification.

Overall, these quantitative findings suggest that the FCS program may have successfully supported Medicaid enrollees with housing and employment needs. However, qualitative findings of program administrators and representatives of FCS provider organizations indicate several barriers, most notably administrative burden and lack of adequate housing supply. According to interview participants, the current benefit duration was perceived to

be too short for most FCS enrollees, and the administrative renewal process created barriers to providing sufficient services. In addition, billing requirements were challenging, especially for social service organizations. The lack of housing supply further restricted FCS providers' ability to place clients into housing. Addressing some of these barriers could further improve the effectiveness of the program.

Evaluation of the FCSH program also revealed substantial and persistent differences in homelessness between FCSH beneficiaries and their matched comparison group, differences in some acuity of need measures, and sensitivity of a number of results to an alternative sample specification that is based on a more comprehensive set of variables for matching. Future evaluation could further refine the match approach to include chronic homelessness and measures of acuity of care need in the main analysis instead of only in sensitivity analyses.

MTP Initiative 4

This section presents an evaluation of the Washington Medicaid Transformation Project Initiative 4 Substance Use Disorder waiver (SUD waiver). The SUD waiver is an amendment to Washington's Section 1115 Waiver that allows the state to receive federal financial participation (FFP) for services provided to Apple Health enrollees with SUD in short-term residential treatment settings called Institution for Mental Diseases (IMD), defined as facilities with more than 16 beds that specialize in residential mental health or SUD treatment.

Chapter 17 includes:

- Information about the historical context of SUD waivers and its implementation in Washington
- Quantitative analyses of measures related to access, utilization, and quality of SUD care, opioid-related overdoses, and provider capacity
- A summary of key qualitative findings from the MTP Midpoint Assessment

Notes Across Evaluation Reports

Across both midpoint and summative analyses of the SUD IMD waiver, evaluation findings varied. In the Midpoint Assessment, of the 25 measures we conducted statistical analyses on, 19 measures improved, three demonstrated no change, and three showed slightly worse performance. Of the three demonstrating no change in the midpoint assessment, two worsened and one improved slightly. All three that worsened in the midpoint continued this trend in the summative. In the Summative Report, we conducted statistical analyses on 39 measures, including nine expenditure measures new to the Summative Report.

KEY FINDINGS

- **Referral to and engagement with treatment.** *The SUD waiver was not associated with uniform improvements in measures related to referral and engagement in treatment. Initiation and engagement in alcohol and other drug treatment improved, and the rate of inpatient or residential SUD services for beneficiaries in Foundational Community Supports increased. In contrast, measures of early intervention and SUD diagnosis and treatment declined, although some of these changes might be attributable to reductions in claims-based measures of SUD prevalence. In addition, the observed decrease in the early intervention measure was large and may partially reflect data quality issues. Therefore, adverse developments in this domain should be interpreted with caution.*
- **Adherence to treatment.** *The SUD waiver was not associated with uniform improvements in measures related to treatment adherence, with some measures improving while others worsening. The use of medications for addiction treatment and withdrawal management improved during the evaluation period. Provider capacity for SUD treatment also increased substantially. However, three measures (treatment in IMDs for SUD, outpatient services, and continuity of pharmacotherapy) got worse. Changes in the measure of continuity of pharmacotherapy were large and may reflect data quality issues.*
- **Emergency department utilization and inpatient visits.** *The SUD waiver was not associated with uniform improvements in measures related to ED and inpatient use. Specifically, three measures improved (ED utilization for SUD, 30-day and 7-day follow-up after ED visits for alcohol, drug abuse or dependence), while three measures got worse (inpatient admissions for SUD, 30-day and 7-day follow-up after ED visits for mental illness).*
- **Access to physical health care.** *SUD waiver implementation was associated with improvements in access to preventive or ambulatory health services; however, this measure declined following the COVID-19 PHE period.*
- **Readmissions.** *The SUD waiver was associated with an increase in hospital readmissions. This trend occurred prior to the onset of the PHE, after which readmissions stabilized. The increase was large – approximately 40 percent relative to readmission levels prior to waiver implementation – and highly statistically significant.*
- **Deaths due to opioids.** *The SUD waiver was largely associated with improvements in prevention measures related to overdose deaths. However, the waiver was not associated with improvements in the number or rate of opioid-related drug overdoses; in fact, overdoses continued to increase throughout the evaluation period, which was characterized by a rapidly accelerating fentanyl crisis.*
- **Health care expenditures.** *The SUD waiver was associated with varied changes in health care expenditures. SUD expenditures in IMDs and expenditures in outpatient and ED settings decreased, whereas total, non-IMD SUD, non-SUD, inpatient, pharmacy, and long-term care expenditures increased.*

Recommendations

Based on the key findings from the evaluation, we recommend the following:

1. **Continue to improve SUD treatment, especially opioid use disorder medication treatment.** Summative evaluation results indicate that the state has made some progress in SUD treatment. However, opioid-related overdoses continued to increase during the evaluation period. Medication treatment for opioid use disorder (OUD) is highly effective. The state should continue its efforts to improve access, engagement, and adherence to such medication. These efforts could include outreach to primary care providers to address remaining reluctance for buprenorphine prescribing and exploring options to reduce existing barriers to methadone treatment. Furthermore, while naloxone has become an increasingly important treatment option for opioid-related overdoses, claims records are not well-suited to monitor the distribution and use of this medication. The state should consider alternative data collection efforts to overcome this limitation (e.g., surveys) and conduct outreach efforts so that more people have naloxone and use it when necessary.

2. **Strengthen early intervention efforts.** Early interventions – which include screening, brief intervention, and referral to treatment – can reduce the number of people with severe SUD and OUD and thus may reduce adverse health outcomes further downstream and alleviate strained provider capacity at more intensive levels of care. Summative evaluation results suggest that early intervention decreased, which is a point of concern. However, the large change in the measure may also reflect data quality issues. The state should investigate why this change occurred and, if substantiated by follow-up analysis, explore strategies to improve early intervention, such as outreach efforts to physicians, nurses, and other health care providers in outpatient settings or increased reimbursement rates for early intervention services.

3. **Identify strategies to reduce inpatient admissions and readmissions.** Inpatient admissions and readmissions increased during the evaluation period, and while follow-up after ED visits related to alcohol and other drugs improved, follow-up after ED visits related to mental health conditions worsened. The substantial increase in readmissions prior to the PHE was especially alarming. The state should comprehensively assess the connection and underlying causes of these changes. Based on such assessments, the state should identify possible interventions, such as reminder systems, telehealth follow-ups, and peer support programs.

4. **Monitor treatment in residential settings, especially IMDs.** We observed mixed changes in the use of residential treatment and, specifically, treatment in IMDs. Moreover, although the average length of stay in IMDs was generally stable during the full evaluation period, it appeared to have increased during the pre-PHE period and decreased following the PHE period. The state should further assess these data to ensure that Apple Health enrollees who would benefit from residential treatment can access this level of care. Such an assessment could include more granular analyses of recurring residential treatment stays or a breakdown of residential and IMD stays by health conditions and demographic categories.

5. **Monitor and evaluate health care spending.** Some spending measures increased while others decreased during the evaluation period. Notably, inpatient spending increased, consistent with negative trends for inpatient stays. The state should continue to monitor health care spending. Such analyses could support and complement future adjustments to the SUD programs based on other recommendations.

Substance Use Disorder Waiver

Background

Treatment of substance use disorder (SUD) requires a continuum of care, ranging from low outpatient services (e.g., abstinence counseling) to high-intensive care in residential or inpatient settings.[107] Until recently, federal regulations prohibited the use of federal financial participation (FFP) for SUD treatment of adults 21-64 in so-called Institutions for Mental Diseases (IMDs), defined as facilities with more than 16 beds that specialize in mental health or SUD treatment.[108] This IMD exclusion was thus considered a barrier to states' providing the full continuum of SUD care.[109,110]

Washington, like other states with Medicaid MCOs, has utilized the "in lieu of" arrangement to receive some federal funds for IMD stays. However, in lieu of payments were restricted to services determined as medically appropriate for stays up to 15 days per month.[111]

In 2015, CMS announced a new opportunity for states to receive FFP for services provided in IMDs through a 1115 waiver.[112] As of November 2023, 34 states and the District of Columbia had applied and received approval for such SUD waivers.[113] Washington received approval for its SUD waiver in the form of an amendment to its larger Section 1115 waiver in July 2018.

THE ASAM CRITERIA

Use of a nationally developed SUD care continuum helps states ensure that a full range of treatment services are available and delivered in adherence to industry standards. The American Society of Addiction Medicine (ASAM) Criteria are one current industry standard for categorizing levels of SUD and co-occurring services and assessing clients for placement in them.

The ASAM Criteria include points along five levels of care, starting at 0.5 (Early Intervention) and going to 4 (Medically Managed Intensive Inpatient). Residential and inpatient services addressed by the SUD waiver occur within Level 3. To determine which level of care is appropriate for an individual, clinicians perform a six-dimensional assessment that includes aspects of psycho-social and physical health characteristics; the sixth dimension also encompasses physical and social environment. For further details, see https://www.asam.org/asam-criteria/about

Implementation

Washington's SUD amendment ("SUD waiver") went into effect on July 1, 2018. It was renewed through June 30, 2028, via Washington's MTP 2.0 extension. The SUD waiver authorized Washington to receive federal financial participation (FFP) for the provision of all Medicaid state plan services, including SUD treatment services provided in residential and inpatient treatment facilities that meet the definition of an IMD for an average of 30 days.

Expenditure authority under the SUD waiver applies to Apple Health enrollees of all ages who receive inpatient SUD services in an IMD. While there are existing exemptions to the IMD exclusion for the <21 and 65+ age ranges, these are subject to facility-type restrictions that Washington's SUD IMDs do not meet. Therefore, this amendment also enables IMD facilities in Washington to receive FFP for previously ineligible individuals younger than 21 and older than 65. Additionally, the waiver applies to services provided to Washington residents enrolled in both managed care and FFS Medicaid, whereas in lieu arrangement only applies to managed care.

SUD IMD MILESTONES

To obtain federal funding under the SUD waiver, Washington agreed to demonstrate progress on the following six milestones identified by CMS: [7]

1. Increasing access to critical levels of care for opioid use disorder (OUD) and other SUDs;
2. Achieving widespread use of evidence-based, SUD-specific patient placement criteria;
3. Using nationally recognized, evidence-based SUD program standards to set residential treatment provider qualifications;
4. Achieving sufficient provider capacity at each level of care, including providers authorized to prescribe medications for opioid use disorder;
5. Implementing comprehensive treatment and prevention strategies to address opioid abuse and OUD; and
6. Improving care coordination and transitions between levels of care.

Evaluation Approach

Our evaluation approach is based on SMI and SUD Waiver Evaluation Design Guidance from CMS. We used a mixed methods approach, combining qualitative and quantitative data. We focused our evaluation on the following seven hypotheses:

Hypothesis 1: The SUD demonstration will increase the percentage of enrollees who are referred to and engage in treatment for OUD and other SUDs.

Hypothesis 2: The SUD demonstration will increase the percentage of enrollees who adhere to treatment of OUD and SUDs.

Hypothesis 3: The SUD demonstration will decrease the rate of ED and inpatient visits within the enrollee population with SUD.

Hypothesis 4: The SUD demonstration will increase the percentage of enrollees with OUD and other SUDs who access physical health care.

Hypothesis 5: Among enrollees receiving care for SUD, the demonstration will reduce readmissions to the same or higher level of care.

Hypothesis 6: The SUD demonstration will decrease the rate of overdose deaths due to opioids.

Hypothesis 7: The SUD demonstration will result in changes in health care spending.

Quantitative Methods

Our primary study populations for our quantitative analysis included all adult Apple Health enrollees ages 18-64 and adult Apple Health enrollees ages 18-64 diagnosed with an SUD. The secondary study population included the subpopulation of Apple Health enrollees ages 18-64 with an OUD diagnosis, the population most affected by expanded access to IMD facilities. Outcome measures included claims-based measures of care quality and utilization, overdose deaths, provider availability, and IMD capacity. Several patient measures were only available at the aggregated level, as noted below.

The analytic approach was a pre-post analysis similar to Initiative 1, with 2017 being the baseline period, 2018-2019 the washout period, 2020-2021 the PHE period, and 2022 serving to assess potential resiliency after the PHE. Unlike Initiative 1, the year 2018 was part of the washout period, and thus excluded from the analysis, because waiver implementation began that year. We reported changes between the baseline period and 2022 (henceforth "evaluation period") and changes between the PHE period and 2022. Regressions were adjusted for covariates (gender, age, rural residency, and Chronic Illness and Disability Payment System [CDPS] indicators). Standard errors were clustered at the primary care service area level.

Limitations. The primary methodological limitation of the quantitative approach was the pre-post design, which did not allow for distinguishing between the effects of the waiver and ongoing changes that would have happened in the absence of the SUD-IMD waiver. Furthermore, quantitative measures might not capture all important changes due to the waiver and thus may only provide an incomplete assessment of how the waiver benefited Apple Health enrollees with SUD. *In the upcoming MTP 2.0 evaluation, we will supplement the pre-post analysis in the MPA with a difference-in-differences analyses in the Summative Report, using the Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF). Such analyses would be restricted to outcomes that can be created in TAF data (e.g., Emergency department visits for SUD).*

Qualitative Methods

Because there were not new qualitative evaluation activities included in the evaluation design for the Summative Report, we reproduced select qualitative findings from Midpoint Assessment of Washington's Section 1115 SUD Amendment report published in December 2020 alongside the new quantitative findings, which reflect quantitative data through the end of the demonstration period. We summarize qualitative methods from the Midpoint Assessment of Washington's Section 1115 SUD Amendment report below:

Sample. The assessment team conducted a series of interviews with key informants representing the SUD providers, MCOs, Tribes, and Apple Health enrollees. In collaboration with HCA, the assessment team identified a list of potential informants with experience-based knowledge of SUD treatment systems affected by the waiver. The team selected informants to represent multiple sectors within the treatment delivery system, including providers (emphasizing residential treatment providers), tribal providers, recovery support organizations, MCOs, and representatives from HCA and the Department of Corrections.

Data Collection. Key informant interviews were conducted with SUD provider organizations (n=6), tribe or Urban Indian Health Program-operated SUD provider organizations (n=1), MCOs (n=2), recovery support organizations (n=3), and state agency staff members (n=2). Interviews lasted approximately one hour and followed a semi-structured guide.

Summative Evaluation Results

Hypothesis 1: The SUD demonstration will increase the percentage of enrollees who are referred to and engage in treatment for OUD and other SUDs.

Performance on Metrics

Progress on referral and engagement was mixed. There was an improvement in initiation and treatment over the demonstration period; initiation of treatment increased significantly by 8.7 percentage points, and the percentage of members who stayed engaged also increased significantly by 4.2 percentage points. However, other measures declined. For example, rates of early intervention dropped and, by 2022, had a rate of 0.3 episodes per 100,000 member months. The percentage of enrollees who had an SUD diagnosis and used any service per year ("SUD Diagnosis: Annually") and the percentage of enrollees who had an SUD diagnosis and used any service per month ("SUD Diagnosis: Monthly") decreased slightly between the baseline year and 2022. Notably, these measures decreased more substantially between the PHE and 2022. One explanation for these decreases is the potential for a lower overall recorded prevalence of SUD in claims data that may have occurred if people disengaged from the health care system during the PHE. One measure, Foundational Community Supports participants with inpatient or residential SUD Services, was only available at the aggregate level. The measure increased substantially during the evaluation period from approximately 0.5 percent to approximately 8.7 percent (Exhibit 17.2).

Exhibit 17.1. Referral to and Engagement in Substance Use Disorder Treatment

Metric	2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
[7] Early Intervention (per 100,000 member months)	0.3	-2.0*	-0.7*	2,164,316
[15] Alcohol or Other Drug Treatment: Initiation	40.5%	+8.7%*	+0.3%	49,642
[15] Alcohol or Other Drug Treatment: Engagement	14.1%	+4.2%*	-1.1%*	49,642
[4] SUD Diagnosis: Annually	7.0%	-0.1%*	-0.7%*	2,164,316
[3] SUD Diagnosis: Monthly	5.3%	-0.5%*	-0.8%*	2,164,316

The population for measures reported in this table included all adult Apple Health enrollees (early intervention; SUD diagnosis) and Apple Health enrollees diagnosed with a new episode of alcohol or drug dependency during the first 10 and 1/2 months of the calendar year (initiation and engagement in alcohol or other drug treatment).

Exhibit 17.2. Foundational Community Supports Participants with Inpatient or Residential SUD Services

Period	Denominator	Percent
SUD Waiver Baseline Year (7/1/2017 – 6/30/2018)	15,449	0.51%
SUD Waiver Year 1 (7/1/2018 – 6/30/2019)	25,895	3.90%
SUD Waiver Year 2 (7/1/2019 – 6/30/2020)	26,145	6.42%
SUD Waiver Year 3 (7/1/2020 – 6/30/2021)	28,819	7.25%
SUD Waiver Year 4 (7/1/2021 – 6/30/2022)	27,219	8.74%

Numbers for this measure were only available by waiver year.

The number of Apple Health providers available for SUD increased from 515 to 9,592 between July 2017 and June 2022, and the number of Apple Health providers available for medication-assisted treatment (MAT) increased from 1,837 to 3,908 during the same period (Exhibit 17.3).

Exhibit 17.3. Provider Capacity to Treat Substance Use Disorder[1]

	Medicaid Provider Availability for Substance Use Disorder	Medicaid Provider Availability for Medication-Assisted Treatment
SUD Waiver Baseline Year (7/1/2017 – 6/30/2018)	515	1837
SUD Waiver Year 1 (7/1/2018 – 6/30/2019)	610	2885
SUD Waiver Year 2 (7/1/2019 – 6/30/2020)	8515	3357
SUD Waiver Year 3 (7/1/2020 – 6/30/2021)	8983	3408
SUD Waiver Year 4 (7/1/2021 – 6/30/2022)	9592	3908

[1]Numbers for this measure were only available by waiver year.

Exhibit 17.4 Licensed SUD IMD Facilities in Washington 2017-2022

Calendar Year	Number of facilities*	Number of beds
2017	21	1817
2018	21	1817
2019	21	1817
2020	21	1817
2021	22	1847
2022	23	1982

Across all calendar years, two facilities (totaling 136 licensed beds) consistently did not accept Medicaid.

Key Informant Perspectives on Assessment and Referral to SUD Treatment

There was consensus among key informants that the American Society of Addiction Medicine (ASAM) criteria for assessment was adopted and seen as the gold standard within the Apple Health SUD treatment systems.

Key informants also generally agreed that the accessibility of medications for OUD in residential treatment facilities had improved in recent years and that the waiver contributed to this trend. However, the availability of waivered providers is limited in some areas of the state, particularly rural areas. These shortages make it difficult for residential facilities to find local prescribers to work with.

One MCO highlighted statewide capacity planning and assessment as an area of focus for future conversations between state agencies, MCOs, provider organizations, and community stakeholders. This planning process could also address coordination with recovery supports beyond medical necessity, which are not covered by MCOs.

Key Informant Perspectives on the SUD Workforce

Key informants noted that although many residential treatment facilities had expanded bed capacity in existing space, the waiver had not prompted them to invest in new facilities or seek state investment for new construction.

They cited uncertainty about the waiver's renewal, a lack of access to capital, and workforce shortages as barriers to expansion.

Interview participants reported notable regional variation in SUD provider capacity across the state, particularly for residential and withdrawal management services. Participants pointed to the higher costs – including facilities, workforce compensation, and other operating expenses – faced by residential providers in urban areas such as King County. However, state payments for residential room and board were the same across all regions of Washington. Some interview participants worried that this discrepancy might incentivize residential providers to move away from high-cost areas to lower-cost regions.

Several key informants indicated that increases in bed capacity were limited by the availability of licensed SUD professionals, of which there was a shortage. Key informants noted several contributing factors to this workforce shortage, including low reimbursement rates of SUD services and the lengthy and difficult process to become a licensed and credentialed SUD professional.

Hypothesis 2: The SUD demonstration will increase the percentage of enrollees who adhere to treatment of OUD and SUDs.

Performance on Metrics

Exhibit 17.5 displays changes in the use of specific services and adherence to treatment. There were important improvements in some measures. For example, medications for addiction treatment increased substantially by 4.9 episodes per 1000 member months between the baseline and 2022. Rates of any SUD treatment and withdrawal management also showed slight increases. On the other hand, the percent of Apple Health enrollees treated in an IMD for SUD and counts of outpatient services declined. Two measures – average length of stay in IMDs, and residential and inpatient services – remained unchanged. Notably, only two measures improved between the PHE and 2022, and most worsened.

Exhibit 17.5. Changes in the Use of Specific Services and Adherence to Treatment

Metric	2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
[5] Treated in an IMD for SUD	0.3%	0.0%*	0.0%*	2,164,316
[6] Any SUD Treatment (per 1,000 member months)	21.5	+1.1*	-3.6*	2,164,316
[36] Average Length of Stay in IMDs (days)	18.7	+1.8	-4.0*	6,144
[12] Medication for Addiction Treatment (per 1,000 member months)	14.0	+4.9*	-1.7*	2,164,316
[8] Outpatient Services (per 1,000 member months)	13.1	-0.5*	-3.0*	2,164,316
[10] Residential and Inpatient Services (per 1,000 member months)	1.1	0.0	-0.2*	2,164,316
[11] Withdrawal Management (per 1,000 member months)	0.5	+0.1*	0.0*	2,164,316

The population for measures reported in this table included adult Apple Health enrollees.

Changes in the use of specific services and adherence to treatment were similar or slightly more positive for measures among those diagnosed with an OUD (Exhibit 17.6). However, the average length of stay in IMDs increased more in this population relative to the larger population of enrollees with SUD (+3.8 days vs. 1.8 days). (Although we code longer lengths of stay as an indication that measures are not moving in the desired direction, that is a subjective judgment, and the fact that individuals OUD had longer stays may reflect better treatment, especially if the state was able to stay under its required 30-day average across all patients).

One measure, continuity of pharmacotherapy for OUD, was only reported for Apple Health enrollees diagnosed with an OUD because it pertained to this population. Changes in the measure of continuity of pharmacotherapy were large – dropping by 45.1 percentage points. Given that these large changes were not reflected elsewhere, they may reflect data quality issues.

Exhibit 17.6. Changes in the Use of Specific Services and Adherence to Treatment Among Enrollees with Opioid Use Disorder

Metric	2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
[5] Treated in an IMD for SUD	5.7%	-1.1%*	+1.5%*	69,764
[6] Any SUD Treatment (per 1,000 member months)	451.0	+52.0*	-17.2*	69,764
[36] Average Length of Stay in IMDs (days)	20.6	+3.8	-3.8	3,996
[12] Medication for Addiction Treatment (per 1,000 member months)	374.9	+102.1*	-9.2*	69,764
[8] Outpatient Services (per 1,000 member months)	273.0	+21.8*	-23.4*	69,764
[10] Residential and Inpatient Services (per 1,000 member months)	20.7	+0.9*	-0.2	69,764
[11] Withdrawal Management (per 1,000 member months)	10.0	+1.4*	+1.0*	69,764
[22] Continuity of Pharmacotherapy for Opioid Use Disorder	12.5%	-45.1%*	-36.3%*	3,088

The population for measures reported in this table included adult Apple Health enrollees with OUD diagnosis.

Key Informant Perspectives on Substance Use Disorder Treatment and Adherence to Treatment

Most key informants believed that the SUD waiver increased access to residential treatment without diminishing the delivery of services at other levels. In providing Apple Health funding for an average of 30 days of treatment, the SUD waiver reduced providers' need to rely on multiple funding sources to support treatment stays longer than 15 days. It also reduced patient anxiety about completing treatment stays. One provider noted that nondisabled, single adult males — who were often last on the priority list — benefitted considerably from the SUD waiver because it created funded sources for SUD services that did not exist before the waiver.

In addition to funding, key informants indicated that waiver flexibility allowed providers more agility to meet clients' "window of willingness" when they first presented with a need for treatment. Previously, providers commonly told clients presenting with a need for SUD treatment that they would need to wait until mid-month so that the provider could stitch together two Apple Health-funded 15-day stays across two separate months. The SUD waiver removed this barrier and improved provider flexibility to start treatment during the client's window of motivation.

However, while removing the 15-day limit led to greater calendar flexibility for admitting clients to residential treatment, MCO prior authorization reviews added new delays. Providers reported that the transition to MCOs that occurred during the state's Integrated Managed Care (IMC) initiative (an initiative unrelated to the SUD waiver) had increased the complexity of the prior authorization process. The resulting delays impacted their ability to provide timely care.

Key informants frequently commented on regional disparities in access to SUD services across the care continuum. A lack of proximity to treatment impacted access to outpatient services, particularly for those lacking transportation options. One key informant described clients driving up to 50 miles to attend outpatient treatment.

Hypothesis 3: The SUD demonstration will decrease the rate of emergency department and inpatient visits within the enrollee population for SUD.

Performance on Metrics

Changes for measures associated with Hypothesis 3 during the evaluation period were uneven (Exhibit 17.7). Follow-up care for ED visits for alcohol and drug use improved between the baseline and 2022 (5.3 percentage points for 30-day follow-up; 5.5 percentage points for 7-day follow-up). However, Follow-up care for ED visits for mental illness worsened – with large drops for 30-day follow-up (-8.9 percentage points) and 7-day follow-up (-11 percentage points). The overall ED visit rate dropped slightly, while inpatient stays increased. Changes were more negative between PHE onset and 2022, with all measures of follow-up rates decreasing during this time period.

Apple Health enrollees diagnosed with an OUD displayed similar patterns, with the exception of inpatient admissions for SUD, which increased both during the evaluation period and between PHE onset and 2022 (Exhibit 17.8). Declines were particularly pronounced for follow-up after ED visits for mental illness for this population, including 30-day follow-up (-14.1 percentage points) and 7-day follow-up (-13.9 percentage points).

Exhibit 17.7. Emergency Department and Inpatient Visits

Metric	2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
[24] Inpatient Stays for SUD (per 1,000 members)	1.6	+0.2*	-0.1*	1,910,145
[23] Emergency Department Visit Rate for SUD (per 1,000 members)	3.5	-0.5*	-0.7*	1,910,145
[17-1] 30-Day Follow-Up After ED Visit for Alcohol/Drug Use	40.1%	+5.3%*	-2.9%*	13,594
[17-2] 30-Day Follow-Up After ED Visit for Mental Illness	65.0%	-8.9%*	-2.1%*	8,369
[17-1] 7-Day Follow-Up After ED Visit for Alcohol/Drug Use	28.2%	+5.5%*	-2.3%*	13,594
[17-2] 7-Day Follow-Up After ED Visit for Mental Illness	52.8%	-11.0%*	-2.4%*	8,369

The population for measures reported in this table included all Apple Health enrollees. The baseline period for metrics 23 and 24 was six months (July 2017 - December 2017) because data before July 2017 for these metrics fell outside mandatory CMS reporting periods.

Exhibit 17.8. Emergency Department and Inpatient Visits Among Enrollees with Opioid Use Disorder

Metric	2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
[24] Inpatient Stays for SUD (per 1,000 members)	22.9	+1.7*	+1.4*	66,479
[23] Emergency Department Visit Rate for SUD (per 1,000 members)	44.2	-5.6*	-4.0*	66,479
[17-1] 30-Day Follow-Up After ED Visit for Alcohol/Drug Use	51.8%	+8.0%*	-4.0%*	5,987
[17-2] 30-Day Follow-Up After ED Visit for Mental Illness	55.6%	-14.1%*	-5.7%*	1,507
[17-1] 7-Day Follow-Up After ED Visit for Alcohol/Drug Use	37.5%	+7.7%*	-3.9%*	5,987
[17-2] 7-Day Follow-Up After ED Visit for Mental Illness	44.2%	-13.9%*	-5.0%*	1,507

The population for measures reported in this table included Apple Health enrollees with OUD diagnosis. The baseline period for metrics 23 and 24 was six months (July 2017 - December 2017) because data before July 2017 for these metrics fell outside mandatory CMS reporting periods.

Hypothesis 4: The SUD demonstration will increase the percentage of enrollees with OUD and other SUDs who access physical health care.

Performance on Metrics

Hypothesis 4 included one measure: access to preventing or ambulatory health services for adult Apple Health enrollees with SUD. This measure improved slightly (1.2 percentage points) during the evaluation period and worsened slightly between the PHE and 2022 for Apple Health enrollees diagnosed with SUD or OUD (Exhibits 17.9 and 17.10).

Exhibit 17.9. Access to Physical Health Care

Metric	2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
[32] Access to Primary Care for Adults with SUD	84.8%	+1.2%*	-1.7%*	103,542

The population for the measure reported in this table included adult Apple Health enrollees with SUD diagnosis.

Exhibit 17.10. Access to Physical Health Care Among Enrollees with Opioid Use Disorder vii

Metric	2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
[32] Access to Primary Care for Adults with SUD	85.5%	+1.8%*	-2.2%*	52,986

The population for the measure reported in this table included adult Apple Health enrollees with OUD diagnosis.

Hypothesis 5: Among enrollees receiving care for SUD, the demonstration will reduce readmissions to the same or higher level of care.

Performance on Metrics

Hypothesis 5 included one measure: readmissions among enrollees with SUD per 100 index hospital stays. Readmissions increased between the baseline and 2022 for Apple Health enrollees with SUD (an increase of 4 readmissions per 100 hospital stays) and OUD (an increase of 4.9 readmissions per 100 hospital stays). These measures were unchanged between the PHE and 2022 (Exhibits 17.11 and 17.12).

Exhibit 17.11. Readmissions Among Enrollees with Substance Use Disorder

Metric	2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
[25] 30-Day Hospital Readmission for SUD (per 100 index stays)	14.2	+4.0*	0.0	6,971

The population for the measure reported in this table included adult Apple Health enrollees with SUD diagnosis.

Exhibit 17.12 Readmissions Among Enrollees with Opioid Use Disorder

Metric	2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
[25] 30-Day Hospital Readmission for SUD (per 100 index stays)	14.7	+4.9*	-0.2	3,982

The population for the measure reported in this table included adult Apple Health enrollees with OUD diagnosis.

Key Informant Perspectives on Care Coordination

Key informants indicated that supporting SUD clients through care transitions was standard practice among providers, with some MCOs also providing support in transition periods. However, there were weaknesses in these linkages. Regional shortages in outpatient capacity and limited data during discharge created uncertain hand-offs and points of risk of losing clients along the treatment continuum. Key informants also noted that the system's limited ability to elicit, record, and share information about social risks and needs – such as the availability of safe and clean housing – made care coordination challenging.

Many key informants highlighted the importance of looking beyond clinical treatment and into other factors affecting their clients' abilities to rebuild healthy lives. Case management and "recovery supports" were identified as areas of greatest need to maximize the state's investment in SUD treatment and produce continued success on waiver milestones. These supports were typically not clinical and not reimbursable by Apple Health but essential to enabling continued and long-term progress in treatment.

The MTP's FCS program offered a promising pathway to address one component of enrollee social determinants of health. By establishing contracts with housing and employment providers to support Apple Health enrollees with behavioral health needs and other risk factors, FCS provided a cohesive infrastructure and framework for coordinating care, including supporting SUD clients as they transitioned back to the community. Educating providers and MCOs on opportunities to engage with these services could support continued progress in the care coordination domain.

Hypothesis 6: The SUD demonstration will decrease the rate of overdose deaths due to opioids.

Performance on Metrics

Hypothesis 6 tests changes in overdose deaths and prevention efforts to reduce those deaths. While prevention measures improved, overdose deaths continued to increase.

Overdose prevention measures improved between the baseline period and 2022 among enrollees with SUD (Exhibit 17.13) and with OUD (Exhibit 17.14). Specifically, the percentage of enrollees with SUD who had a high dosage (>90mg MED) prescription decreased by 4.9 percentage points and the percentage of enrollees with an opioid prescription who were prescribed a sedative declined by 7.1 percentage points (Exhibit 17.13). These patterns were similar when the population was restricted to Apple Health enrollees diagnosed with OUD (Exhibit 17.14). One measure, OUD treatment for people with treatment needs, was only reported for this population because it pertained to Apple Health enrollees diagnosed with an OUD. The measure improved strongly, by 16.6 percentage points.

Exhibit 17.13. Overdose Death Prevention Measures

Metric	2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
[18] People with an Opioid Prescription >90mg MED	12.7%	-4.9%*	-1.3%*	12,822
[21] People with an Opioid Prescription who were Prescribed a Sedative	15.2%	-7.1%*	-1.2%*	10,864

The population for the measure reported in this table included adult Apple Health enrollees with SUD diagnosis.

Exhibit 17.14. Overdose Death Prevention Measures among Enrollees with Opioid Use Disorder

Metric	2022 Rate	ΔBL to 2022	ΔPHE to 2022
[18] People with an Opioid Prescription >90mg MED	21.3%	-8.4%*	-1.3%
[21] People with an Opioid Prescription who were Prescribed a Sedative	20.8%	-5.9%*	-0.1%
Opioid Use Disorder Treatment for People with Treatment Need	60.7%	+16.6%*	+0.1%

The population for the measure reported in this table included adult Apple Health enrollees with OUD diagnosis.

Despite the improvement in prevention measures, the number of drug overdose deaths increased by 1,540, from 1,163 to 2,703, during the evaluation period and by 706 between the PHE period and 2022 (Exhibit 17.15). The drug overdose death rate increased by 18.33, from 15.82 to 34.37 deaths per 100,000 residents during the evaluation period, and by 8.57 deaths per 100,000 residents between the PHE period and 2022. Importantly, these increases happened in the context of an accelerating fentanyl crisis. Measures of drug overdose deaths were only available at the aggregate level.

Exhibit 17.15. Statewide Deaths Due to Drug Overdoses

Metric	2022	Baseline-2022	PHE-2022	2022 (N)
Statewide Deaths due to Drug Overdoses - Count	2703	1540	706	2703
Statewide Deaths due to Drug Overdoses - Rate per 100,000 residents	34.37	18.55	8.57	2703

Source: Washington State Department of Health Opioid and Drug Overdose Data Dashboard. Given the impact of COVID-19, statewide deaths due to drug overdose data was not available at the Apple Health-enrollee-level.

Key Informant Perspectives on Overdose Prescribing and Overdose Deaths

Key informants reported that legislation to address overprescribing of opioid medications that went into effect prior to the waiver was effective. Though there was some variation in supply, naloxone appeared to be generally available and dispensed throughout the state. Several key informants pointed to wider naloxone use and distribution as a reason for overdoses decreasing. A recovery support organization representative noticed that many more people in the community were now familiar with the drug and its purpose.

Hypothesis 7: The SUD demonstration will result in changes in health care spending.

Performance on Metrics

Changes in per member per month (PMPM) expenditures for Apple Health enrollees with SUD were uneven during the evaluation period (Exhibit 17.16). Total expenditures increased ($78 PMPM), accompanied by expenditures increases in most categories. There were some services where expenditures decreased, including expenditures associated with IMDs (-$78 PMPM), EDs (-$1 PMPM), and outpatient services (-$103 PMPM). Expenditures increased across most measures between the PHE period and 2022. Results were similar for Apple Health enrollees with OUD diagnosis (Exhibit 17.17).

Exhibit 17.16. Total Expenditures and Expenditures by SUD Categories and Service Types [i]

Metric	2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
Total Spending Per Member, Per Month	$1,396	+$78*	+$75*	164,868
IMD SUD Spending Per Member, Per Month	$16	-$78*	-$1	164,868
Non-IMD SUD Spending Per Member, Per Month	$251	+$35*	+$16*	164,868
Non-SUD Spending Per Member, Per Month	$1,129	+$121*	+$59*	164,868
Emergency Department Spending Per Member, Per Month	$33	-$1*	+$3*	164,868
Other Outpatient Spending Per Member, Per Month	$549	-$103*	+$37*	164,868
Inpatient Spending Per Member, Per Month	$500	+$122*	+$10	164,868
Pharmacy Spending Per Member, Per Month	$223	+$18*	+$8*	164,868
LTSS Spending Per Member, Per Month	$91	+$45*	+$17*	164,868

The population for the measure reported in this table included adult Apple Health enrollees with SUD diagnosis.

Exhibit 17.17. Total Expenditures and Expenditures by SUD Categories and Service Types among Enrollees with Opioid Use Disorder

Metric	2022 Rate	ΔBL to 2022	ΔPHE to 2022	2022 (N)
Total Spending Per Member, Per Month	$1,631	+$44	+$109*	69,764
IMD SUD Spending Per Member, Per Month	$25	-$142*	$0	69,764
Non-IMD SUD Spending Per Member, Per Month	$492	+$87*	+$48*	69,764
Non-SUD Spending Per Member, Per Month	$1,114	+$99*	+$60*	69,764
Emergency Department Spending Per Member, Per Month	$33	-$1*	+$3*	69,764
Other Outpatient Spending Per Member, Per Month	$733	-$157*	+$64*	69,764
Inpatient Spending Per Member, Per Month	$517	+$150*	+$26*	69,764
Pharmacy Spending Per Member, Per Month	$260	+$9	$0	69,764
LTSS Spending Per Member, Per Month	$87	+$44*	+$16*	69,764

The population for the measure reported in this table included adult Apple Health enrollees with OUD diagnosis.

Notes, Challenges, Lessons Learned

Several factors contextualize SUD demonstration evaluation findings.

Implementation of Washington's SUD IMD waiver occurred during a period of major, overlapping system-level disruptions, including the transition to behavioral health under managed care, the COVID-19 pandemic, and the rise in fentanyl. From 2016 to 2020, HCA phased in efforts to integrate physical health and behavioral health under managed care. These efforts represented an especially impactful shift for SUD providers, as the integration required a quick transition from a county-operated fee-for-service system to managed care. Then, the COVID-19 pandemic brought unprecedented challenges to an already strained treatment infrastructure, including major workforce shortages, agency closures, and increased demand for behavioral health services amid a behavioral health system with dramatically reduced capacity. Both systems-level challenges were further compounded by the rapid rise of the fentanyl in Washington State, the predominant opioid with respect to mortality and overdose across the evaluation period. Due to increased isolation and decreased availability of services during COVID-19, opioid overdose deaths accelerated sharply during the evaluation period.

Referrals to and use of traditional SUD treatment systems were lower during the evaluation period. Multiple factors contributed to this reduction, including the state's investment in upstream criminal legal system diversion programs such as Law Enforcement Assisted Diversion (LEAD) as well as the creation of new referral pathways that prioritized peer services and intensive case management. Both resulted in reduced utilization of traditional SUD treatment systems. In addition, in the wake of the Washington State Supreme Court's 2021 Blake ruling, the state saw reduced criminal charges associated with substance use, and a reduction in referrals to SUD treatment providers who historically received large proportions of referrals through criminal courts.

Key informants emphasized several challenges that may have contributed to limited improvements in performance outcomes. These include MOUD prescriber shortages, barriers to sharing health information across providers and systems, and unaddressed complex enrollee social needs affecting SUD treatment outcomes that community capacity was not yet equipped to address. Further, the evaluation period saw significant prescriber education challenges and was impacted by federal rules that limited opioid treatment provider ability to prescribe MOUD until after the evaluation period in 2024 when those rules were revised. Of note, while overdose rates rose, measures in prevention and overdose deaths largely improved. State investment in widespread, low-barrier access to opioid overdose reversal mediations likely contributed to improved mortality outcomes. Of not for interpreting evaluation findings, this improvement may be among the drivers of undesirable increases in hospitalizations, as people who survive overdoses require subsequent hospitalization.

Overall, the SUD IMD waiver supported state efforts to remove barriers to collaboration, improved hospital and community-provider communication, and provided additional support for improved availability of MOUD across treatment settings. This includes updates to state contracts and rules that require IMD facilities to provide MOUD as part of a holistic, person-centered approach to care.

- Future implementers should consider building in a process and policy that ensure systems of care can be responsive to the evolving behavioral health landscape. As person-centered treatment that prioritizes immediate access to supportive services may not always fit within pre-established levels of care, system flexibility is key.
- Future implementers should establish robust data systems and be mindful of how to link payment with licensure and credentialing information across data systems.
- With updates to the American Society of Addiction Medicine 4th Edition, future implementers should consider how SUD and SMI IMD waivers and co-occurring enhanced care can be better leveraged to improve outcomes.

It is important to note that recovery from the cascade of systems-challenges linked to the COVID-19 pandemic will likely require additional years of evaluation data beyond this evaluation period ending in 2022 to detect. To support this recovery and strengthen its overall behavioral health system looking ahead into MTP 2.0, Washington State has made numerous targeted investments in behavioral health to strengthen and stabilize the behavioral health continuum of care. Among these are investments in a range of expanded step-down capacity and community supports as well as improvements in coordinating between carceral facilities and outpatient behavioral health services. The state also dedicated funding for mobile medication units to expand MOUD treatment to rural areas and other setting where patients experience difficulties traveling to fixed-site opioid treatment programs. To support its workforce, Washington State completed a range of state plan amendments to support providers in billing within their full scope of practice. Since the end of the evaluation period included in this report, the state legislature has also required MCOs to provide coverage for behavioral health crisis serves as emergency services (E2SHB 1688), improved treatment for SUD by setting new standards for authorizing inpatient SUD treatment and withdrawal management (SB 6228), and added new covered provider types to bolster workforce and expanded peer support services. Finally, through the reentry component of MTP 2.0, carceral facilities will have capacity to diagnose and begin treating for SUD. Then, through improved discharge coordination, individuals released from incarceration will have a clear path for needed follow-up care.

Conclusion

We summarize our findings in accordance with the hypotheses we set out to measure.

Hypothesis 1: The SUD demonstration will increase the percentage of enrollees who are referred to and engage in treatment for OUD and other SUDs. There was limited support for this hypothesis. Initiation and engagement in alcohol and other drug treatment improved, and inpatient and residential SUD services increased among Foundational Community Supports participants. However, early intervention and SUD diagnosis and treatment measures worsened. One explanation for these decreases is the potential for a lower overall recorded prevalence of SUD in claims data that may have occurred if people used less care during the PHE. Thus, the lack of improvements in this domain should be interpreted with caution.

Hypothesis 2: The SUD demonstration will increase the percentage of enrollees who adhere to treatment of OUD and SUDs. There was mixed evidence to support this hypothesis. For example, medications for addiction treatment increased substantially by 4.9 episodes per 1,000 member months between the baseline and 2022. Rates of any SUD treatment and withdrawal management also showed slight increases. However, the percentage of Apple Health enrollees treated in an IMD for SUD and outpatient service use decreased. A large decline in the continuity of pharmacotherapy for OUD may reflect data quality issues.

Hypothesis 3: The SUD demonstration will decrease the rate of ED and inpatient visits within the enrollee population with SUD. There was mixed evidence to support this hypothesis. Follow-up care for ED visits for alcohol and drug use improved, but follow-up care for ED visits for mental health worsened.

Hypothesis 4: The SUD demonstration will increase the percentage of enrollees with OUD and other SUDs who access physical health care. We found some support for this hypothesis, with access to preventive or ambulatory health services improving slightly over the evaluation period, although it declined slightly between the PHE and 2022.

Hypothesis 5: Among enrollees receiving care for SUD, the demonstration will reduce readmissions to the same or higher level of care. We did not find evidence supporting this hypothesis, with hospital readmissions increasing during the evaluation period.

Hypothesis 6: The SUD demonstration will decrease the rate of overdose deaths due to opioids. While prevention measures improved, overdose deaths continued to increase during the evaluation period. However, increases in overdose deaths need to be interpreted in the context of rapidly rising availability of fentanyl.

Hypothesis 7: The SUD demonstration will result in changes in health care spending. Total expenditures increased over the evaluation period, accompanied by expenditure increases in most categories.

Recognizing competing drivers on evaluation outcomes beyond waiver activities — including, but not limited to, the systems-level impact of the COVID-19 pandemic — outcomes described in this chapter cannot be attributed solely to the SUD IMD waiver's effects. Overall, our evaluation suggested that Washington's SUD waiver supported some improvements, especially in SUD or OUD treatment and access to preventive and ambulatory services. Provider capacity for SUD treatment also improved, suggesting that the state leveraged the waiver to strengthen its SUD and OUD treatment programs. However, measures in several areas – early intervention, hospital use readmissions, and overdose rates – did not show improvements or got worse.

It is clear that while the SUD waiver has laid a foundation for success in certain areas, there remains considerable room for refinement and expansion. Future strategies should focus on enhancing early intervention programs and addressing the complex factors contributing to hospital admissions and opioid-related fatalities. Continued innovation and targeted policy adjustments will be crucial in achieving a more comprehensive and effective response to the SUD and OUD crisis.

MTP Initiative 5

This chapter presents an evaluation of the Washington Medicaid Transformation Project Initiative 5, an amendment to its Section 1115 waiver allowing the state to receive federal financial participation for services provided to Apple Health enrollees receiving short-term residential treatment for adults with serious mental illness (SMI) and children with serious emotional disturbance (SED) at an Institution for Mental Diseases (IMD), which we refer to as the "SMI waiver."

Chapter 18 includes:

- Information about the SMI waiver, the local context, and its implementation
- Analyses of a variety of measures of access, utilization, and quality
- Assessments of provider capacity

Notes Across Evaluation Reports

Across both midpoint and summative analyses, a majority of SMI/SED IMD waiver evaluation measures continued to not show improvements or continued to now show changes. In the Midpoint Assessment, we measured changes within a single year (2020 to 2021) that notably overlapped with the COVID-19 PHE. In the Summative Report, we had access to an additional year of data to measure change from baseline year 2020 through the most recent evaluation year 2022. Though extended, it is likely that more years of evaluation data are needed to observe changes in the data.

KEY FINDINGS

Our evaluation of the SMI waiver includes the following findings:

- **Emergency department utilization.** *The SMI waiver was not associated with decreases in all-cause ED visits for adults with SMI. Instead, we observed a slight increase in ED visits from 2020 to 2022. On the other hand, the probability of having an ED visit related to mental health conditions decreased slightly in this time period.*
- **Preventable readmissions.** *The demonstration aimed to reduce preventable readmissions to acute care hospitals and residential settings. However, our analysis found no evidence of change in this metric, suggesting that the interventions did not effectively impact readmission rates.*
- **Crisis stabilization services availability.** *Results were mixed regarding the impact on crisis stabilization services. While there was a decrease in capacity needed to meet Apple Health enrollee with SMI/SED need at crisis call centers, mobile crisis units, crisis assessment centers, and coordinated community crisis response teams, we noted expanded capacity to meet Apple Health enrollee with SMI/SED need for crisis stabilization units.*
- **Access to community-based services.** *We observed a slight decline in the use of health-related outpatient, rehabilitation, and targeted case management services. Additionally, there were decreases in the engagement of youth and adults with new antipsychotic prescriptions in recommended follow-up care. While provider capacity generally increased, institutional capacity appeared to decline slightly.*
- **Care coordination and continuity of care.** *Follow-up rates after hospitalization for mental illness did not improve between 2020 and 2022, and 7-day follow-up after hospitalizations decreased for adults and youth. Medication continuation post-discharge also saw a decline.*
- **Health care spending.** *Among enrollees with SMI and SED, expenditures for mental health services did not change significantly. However, after adjusting for enrollee health risk and demographics, expenditures for other non-mental health services increased between 2020 and 2022.*
- **Delivery system changes.** *Despite the lack of significant quantitative improvements in several measured areas, qualitative insights suggested several positive shifts. Key informants highlighted efforts to improve the quality of patient care, care coordination, and perceived benefits of allowing for longer lengths of stay. Notable changes include enhanced MCO involvement in patient care transitions, increased access to medical information for patients in IMDs, and expanded flexibility in bed usage to facilitate the treatment of co-occurring disorders. The expansion of the New Journeys Program and advancements in HIT capabilities—such as electronic consent management and expanded telehealth technologies—are also critical developments aimed at improving care coordination, information sharing, and treatment options.*

Recommendations

Based on the key findings from the evaluation, we recommend the following:

1. **Enhance crisis services capacity.** The state should conduct a comprehensive assessment of crisis services to identify and address gaps in capacity, especially in mobile crisis units, crisis assessment centers, and coordinated community crisis response teams. Strengthening these services is crucial to preventing overreliance on emergency departments and crisis stabilization units. Expanding the availability and reach of these services can improve early intervention and reduce the need for more intensive care.

2. **Continue to improve access to community-based services.** The state should explore strategies to enhance access to outpatient, rehabilitation, and targeted case management services. These strategies could include increasing funding, expanding provider networks, and extending targeted outreach programs to ensure that individuals with SMI are aware of and can easily access available services.

3. **Strengthen care coordination and continuity of care.** Given the lack of improvement in care coordination and continuity, the state should reassess efforts that specifically target these areas. Future efforts could include placing greater emphasis on standardized care transition protocols, enhancing training for care coordinators, and leveraging technology to ensure seamless communication between care providers across different settings.

4. **Address gaps in post-hospitalization follow-up and medication continuation.** Qualitative interviews suggest that most MCOs did not use newly available information to engage more directly in discharge planning, suggesting that payers may not be the ideal party for managing discharges. To improve follow-up care and medication continuation after hospital discharge, targeted interventions such as reminder systems, telehealth follow-ups, and peer support programs should be considered. Alerts should be directed to parties involved in patient care; incentives, resources, and training could provide additional support to those who can manage and coordinate post-discharge care. These efforts should address barriers to accessing follow-up care and promote adherence to treatment plans.

5. **Monitor and evaluate health care spending impacts.** Although there was no evidence of greater expenditures for IMDs or other mental health services among enrollees with SMI and SED, the state should consider undertaking a detailed analysis of health care spending related to the SMI waiver to identify areas for potential cost savings or unexpected expenditures. These analyses may inform adjustments to funding allocations and prioritize interventions with the greatest value.

6. **Leverage qualitative insights for continuous improvement.** The positive qualitative feedback on patient care quality and alignment with patient needs suggests that further qualitative studies could yield valuable insights for improving service delivery. The state should continue to engage with key stakeholders, including patients, providers, and MCOs, to gather feedback and adapt strategies accordingly.

7. **Expand and optimize health information technology capabilities.** Building on the successes of enhanced HIT capabilities, the state should continue to invest in technology solutions that support collaborative care, such as electronic health records, telehealth platforms, and electronic referral systems. These technologies can play a pivotal role in improving care coordination, information sharing, and treatment accessibility.

8. **Leverage synergies between the SUD and SMI waivers.** IMD providers indicated that the presence of both waivers allowed for much greater flexibility in bed use and created capacity that would not have been possible with a single waiver. There may be other areas where these IMD waivers can be used in concert to improve access, reduce provider burden, and create capacity.

9. **Prioritize provider and institutional capacity building.** The state should direct resources towards addressing the observed reductions in institutional capacity and support the growth in provider capacity. Our results – that capacity appears to have improved for providers but decreased among facilities – run contrary to general national and regional concerns about workforce shortages and suggest that Washington may need to give particular attention to the capacity and composition of the facilities needed to serve Apple Health enrollees with mental health conditions.

Serious Mental Illness/ Serious Emotional Disturbance Waiver Amendment

Background

For individuals dealing with a psychiatric crisis, receiving care in residential or inpatient facilities may be vital. Such environments ensure safety and stability and offer the chance to begin or modify medications. They also enhance the collaboration between multidisciplinary clinical teams and informal support networks.[1,2] However, a national shortage of inpatient beds may make it difficult for those in need to access this care in a timely manner. The scarcity of inpatient beds has also been linked to homelessness[3,4] and a higher rate of incarceration of individuals with SMI.[5–7]

The shortage of beds has been connected to a rise in ED visits for mental health issues.[8] Often, patients are kept in the ED, a process known as "boarding," with reports indicating that those with severe psychiatric conditions can stay in the ED for three to five days or longer.[9] This boarding practice poses notable challenges for hospitals, raising concerns about patient safety and adverse outcomes.

Despite the need for more inpatient and residential care options, Medicaid has had limited support for such services. Since 1965, federal regulations have barred the use of federal Medicaid matching funds for services offered to Medicaid enrollees aged 21 to 64 in facilities known as Institutions for Mental Diseases (IMDs). IMDs are defined as facilities with more than 16 beds dedicated to mental health or substance use disorder treatment. This restriction has greatly constrained the availability of inpatient psychiatric care for Medicaid enrollees.

Advocates for repealing the IMD exclusion argue that it contradicts the principles of the 2008 federal Mental Health Parity and Addiction Equity Act (MHPAEA).[10,11] They assert that Medicaid enrollees should have access to comprehensive mental health care, including inpatient treatment. They also suggest that IMDs present a preferable option to ED boarding.[9,12,13] On the other hand, those in favor of maintaining the exclusion believe that the real problem lies in the lack of community-based services. They fear that abolishing the IMD rule would shift focus away from these services towards inpatient care.[14] To address arguments against and in favor of the IMD exclusion, the IMD waiver mandates that states increase their support for community-based services as a condition of receiving federal financial participation for services provided in an IMD.

In 2018, CMS introduced an option for states to apply for Section 1115 waivers to bypass the IMD exclusion. These waivers enable federal matching funds to be used for short-term residential treatment in an IMD for adults with SMI and children with SED for a period of up to 60 days, provided the average stay in IMDs does not exceed 30 days. (If the state's average stay surpasses 30 days, the maximum stay eligible for federal funds drops to 45 days. However, if annual reports show the state's average stay is 30 days or less, states can return to claiming funds for up to 60 days.) These "SMI waivers" resemble the waivers granted for SUDs, like the one approved for Washington in 2018.

Washington's Dynamic Behavioral Health System

Washington's SMI waiver is just one part of a large set of changes that affect the state's behavioral health system. These include:

Washington's transition to "Integrated Managed Care." Integrated Managed Care (IMC) was initiated in 2016, with all MCOs and counties financially integrating behavioral and physical health care by January 2020.

ACH efforts related to mental health. ACHs were charged with carrying out a variety of HIPs, including some that had the potential to directly or indirectly affect individuals with mental health conditions, including Project 2A (Bi-Directional Integration of Physical and Behavioral Health Care), Project 2B (Community-Based Care Coordination), Project 2C (Transitional Care), and Project 2D (Diversion Interventions).

Organizational changes among state agencies responsible for the administration and management of behavioral health benefits. On July 1, 2018, Washington's Department of Social and Health Services' (DSHS) Division of Behavioral Health and Rehabilitation (DBHR), the agency overseeing behavioral health rule-making and provider licensing, was dissolved. Responsibility for licensing and certification of behavioral health providers was transferred to the Department of Health (DOH), while staffing and behavioral health rule-making responsibilities were transferred to HCA and DOH, placing DBHR, which includes the State Mental Health Authority and State Substance-Abuse Authority, with the Medicaid Single State Agency. These changes were intended to facilitate delivery system integration and reduce administrative costs.

THE IMD EXCLUSION

An IMD is defined as "a hospital, nursing facility or other institution of more than 16 beds that is primarily engaged in providing diagnosis, treatment, or care of persons with mental diseases, including medical attention, nursing care, and related services." (Social Security Act §1905(i)) IMDs are generally licensed or accredited facilities that specialize in providing psychiatric, psychological, or SUD treatment services.

Since 1965, the IMD exclusion prohibited state Medicaid programs from obtaining federal matching funds to pay for IMD services. The policy was intended to support a shift from institutionalized care to community-based treatment for mental illness while establishing states as the primary payer for inpatient mental health services. The exclusion applies to services provided to Medicaid beneficiaries between the ages of 21 and 64 but does not preclude states from receiving federal Medicaid funding for services provided in facilities that do not meet the definition of an IMD, such as facilities with 16 or fewer beds. In 2016, CMS amended the rules for Medicaid managed care such that states' capitation payments to managed care entities for enrollees admitted to an IMD qualified for full federal matching as long as the IMD length of stay did not exceed 15 days in a calendar month.

The option to pursue IMD waivers for SUD services was announced in 2015. More than 30 states have adopted these waivers. The option to pursue IMD waivers for SMI and SED was announced in 2018. One important difference in these waivers is that SUD waivers have an expectation that the average length of stay is less than 30 days, whereas this constraint is more binding for SMI waivers. Specifically, if the average length of stay for individuals with SMI or SED exceeds 30 days, the maximum length of stay permissible for federal matching funds decreases from 60 days to 45 days until the state can subsequently show that its statewide average length of stay has dropped to 30 days or less. Approximately ten states have adopted SMI waivers, and at least six have applications pending.

The initiation of Washington's SUD waiver. The Section 1115 SUD waiver, which went into effect on July 17, 2018, covers SUD treatment services provided under Washington's Medicaid state plan to individuals in an IMD, including outpatient services, intensive outpatient services, residential treatment, medically supervised withdrawal management, and medications for opioid use disorder (MOUD).

The COVID-19 Public Health Emergency. The PHE may have shifted the delivery of some mental health services from a preponderance of in-person visits to greater use of telehealth.

The 988 hotline. The 988 hotline was designated by the Federal Communications Commission on July 16, 2022, to serve as the national three-digit dialing code for the National Suicide and Crisis Lifeline. The hotline was expected to increase the use of crisis services across states, with operators counseling callers and potentially dispatching mobile crisis services. To support the 988 hotline, Washington passed HB 1477, the Crisis Call Center Hubs and Crisis Services Act. This legislation established the Crisis Response Improvement Strategy committee to guide the implementation of the bill's objectives. Two subsequent pieces of legislation further supported the hotline. House Bill 1134 endorsed rapid response crisis teams and funding for mobile units and responder training. Additionally, E2SHB 1688 was enacted to protect consumers from charges for out-of-network emergency services and to ensure coverage for emergency behavioral health services without prior authorization. These legislative efforts, alongside the development of best practice guidelines for crisis call centers, demonstrated Washington's commitment to enhancing crisis care and support statewide.

Certified Community Behavioral Health Clinics. Certified Community Behavioral Health Clinics (CCHBCs) were designed to foster access to coordinated comprehensive behavioral health care. Criteria outlining CCBHC certification required these clinics to offer a large scope of services, including person-centered care coordination across service providers and 24/7 access to crisis services. By 2023, behavioral health agencies had received approximately 25 CCBHC grants.

House Bill 5444. Often referred to as "Trueblood" after the last name of the initial plaintiffs' attorney, 2014 federal litigation challenged unconstitutional delays in competency evaluation and restoration services for incarcerated individuals awaiting trial. As a result, the state entered into a settlement agreement that included requirements to provide competency evaluations within 14 days and competency restoration services within seven days of court orders. E2SSB 5444 codified the state's responses. The millions of dollars in fines levied against the state were ultimately ordered to be used to fund programs that keep class members out of jail, creating a Trueblood Diversion Workgroup, and funding multiple projects statewide intended to divert persons with mental illness from unnecessary incarceration to timely treatment interventions.

Implementation

Washington's SMI amendment ("SMI waiver") went into effect on December 23, 2020. The waiver's expenditure authority covers SMI and SED treatment services provided under Washington's Medicaid state plan to individuals in an IMD, including outpatient services, intensive outpatient services, residential treatment, and crisis services. The state was required to achieve a statewide average length of stay of 30 days or less for SMI treatment in residential settings, subject to monitoring through a set of performance measures. Washington must also comply with budget neutrality requirements.

BOX 18.2. SMI/SED IMD MILESTONES

To obtain federal funding under the SMI waiver, Washington agreed to demonstrate progress on a set of four milestones and two additional topics identified by CMS.

1. **Milestone 1:** Ensuring Quality of Care in Psychiatric Hospitals and Residential Settings
2. **Milestone 2:** Improving Care Coordination and Transitioning to Community-Based Care
3. **Milestone 3:** Increasing Access to Continuum of Care, Including Crisis Stabilization Services
4. **Milestone 4:** Earlier Identification and Engagement in Treatment, Including Through Increased Integration
5. Financing Plan
6. Health IT Plan

The state outlined its strategic approach and implementation plan for achieving these milestones in the SMI Implementation Plan Protocol.

Evaluation Approach

Our evaluation approach is based on SMI and SUD Waiver Evaluation Design Guidance from CMS. We used a mixed methods approach, combining qualitative and quantitative data. We focused on six hypotheses:

Hypothesis 1. The SMI waiver will result in reductions in utilization and length of stay in EDs.

Hypothesis 2. The SMI waiver will result in reductions in preventable readmissions to acute care hospitals and residential settings.

Hypothesis 3. The SMI waiver will result in improved availability of crisis stabilization services throughout the state.

Hypothesis 4. Access of enrollees with SMI/SED to community-based services to address their chronic mental health care needs will improve under the demonstration.

Hypothesis 5. The SMI waiver will result in improved care coordination, especially continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities.

Hypothesis 6. The SMI waiver will result in changes in health care spending.

Quantitative Methods

Our study populations included adults with SMI, defined as individuals ages 18-64 with two or more outpatient visits (or one inpatient visit) with a primary diagnosis of schizophrenia (ICD-10: F20, F25), Bipolar I (F30, F31.0-F31.78), or MDD (F32.2, F32.3, F33.2, F33.3), in a given calendar year. We excluded individuals with fewer than 11 months of Apple Health enrollment during a calendar year because the look-back period for identifying Apple Health enrollees with SMI is 12 months.

To define SED, we looked at guidance from a 1993 Federal Register[15] and a 2014 expert panel convened by the Substance Abuse and Mental Health Services Administration.[16] SED was defined broadly, including SMI and mild and moderate mental health conditions, but excluding SUDs and neurodevelopmental disorders (except attention

deficit-hyperactivity). We thus defined SED broadly and included children and adolescents with any diagnoses in the previous year that include the following categories derived from ICD-10 groupings as part of the Agency for Healthcare Research and Quality's Clinical Classifications Software Refined system17: EXT021; MBD001-MBD013; MBD027; and RNVS016. We also included ICD10 codes R455-R457, R4583, R45850, R4587, R462, R466, and R4681 to capture additional psychotic symptoms and regulatory behaviors, and codes F900-902 and F908-F909 to capture attention-deficit hyperactivity disorders. Following federal guidance, we focus on enrollees ages 4-20.

Our primary model was a flexible model designed to assess changes between the baseline year of 2020 and the most recent evaluation year, 2022.

Limitations. Our evaluation has important limitations. First, we measured changes within two years (2020 to 2022). Although the state implemented many actions to drive improvements, it may take more than two years to observe changes in services and utilization data. *In the upcoming MTP 2.0 demonstration evaluation, we will include a longer evaluation period; the Summative Report will include data from 2017 through 2025, pending TAF data availability.*

We did not have a control group or set of comparison states, so it is difficult to disentangle changes occurring with the SMI waiver from coinciding secular changes. *In the upcoming MTP 2.0 demonstration evaluation, the Summative Report will utilize the Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF) dataset to facilitate a difference-in-differences design utilizing a comparison group from other similar states. These analyses will be restricted to outcomes than can be generated in TAF data.*

Furthermore, the SMI waiver represents one piece of larger statewide and national efforts to address mental health services, even as mental health needs appear to have worsened during the COVID-19 PHE. Disentangling the effects of the COVID-19 PHE during the 2020-2022 period is particularly challenging.

Finally, claims data may not fully represent all behavioral health encounters during the study period, and it is possible that clinical measures changed even if claims-based measures did not. *The state-based evaluation of Washington will be supported in part by an additional NIH-funded study of SMI waivers led by the IEE, offering the opportunity for additional context to the MTP 2.0 evaluation.*

Qualitative Methods

Our qualitative approach included interviews with purposively selected individuals familiar with the SMI waiver from the HCA (n=6), the MCOs (n=4), and provider organizations impacted by this work (n=2). Participants were selected for their expertise and knowledge of the SMI waiver, for diverse department representation, and for a range of perspectives. Interviews were conducted between June 2023 and January 2024.

Interviews were approximately 45-60 minutes in duration, recorded, professionally transcribed, and transcripts were checked for accuracy. Qualitative research staff entered de-identified transcripts into Atlas.ti (Version 9, Atlas.ti Scientific Software Development GmbH, Berlin, Germany) for data management and analysis. Interview guides were revised based on what we learned in each interview and tailored to each interviewee based on their role and area of expertise.

The team used iterative and inductive analytic approaches to categorize and tag interview data. We met as a group to discuss the first transcripts and collectively developed codes to identify and make sense of emerging themes. One team member coded the remaining interview data, developed analytic memos, and met weekly with the team to review and refine how the data were analyzed and coded and discuss emerging findings. We then reviewed the data again, making comparisons across organizations. This approach provided context for the SMI waiver from varied viewpoints.

Our qualitative approach has important limitations. First, we interviewed a small number of participants from provider organizations, where the nexus of care lies. Second, despite purposive sampling aiming for a wide array of perspectives, selecting participants with expertise and knowledge of the SMI waiver might have introduced selection bias. The participants' deep involvement could potentially skew perspectives towards more institutional or policy-oriented views, potentially underrepresenting the experiences and challenges faced by enrollees or those on the margins of service delivery. Moreover, our method of making comparisons across organizations, while valuable for identifying cross-cutting themes and differences, may not fully capture each organization's complexity and unique contexts. This approach might oversimplify or generalize findings, not adequately reflecting the individual organizational cultures and specific challenges. Finally, as with our quantitative approach, the study's timeframe and the dynamic policy environment make it difficult to disentangle changes occurring because of the SMI waiver from coinciding secular changes.

Summative Evaluation Results

Hypothesis 1: The SMI waiver will result in reductions in utilization and length of stay in emergency departments.

Exhibit 18.1 displays changes in ED visits for adults with SMI, including the probability of any ED visit for mental health conditions (first row) and all-cause ED visits for adults with SMI (second row), including how overall ED visit rates among adult Apple Health enrollees with SMI vary by geographic area or enrollee characteristics. The likelihood of any ED visit for mental health conditions decreased slightly (-0.3 percentage points) – a positive development – between 2020 and 2022. However, among adults with SMI, overall ED visits increased by 3.4 visits per 1,000 member months.

We also investigated changes across IMC regions. ED visits decreased in the Salish region (-11.2 visits per 1,000 member months) but increased slightly in the Thurston-Mason region (+13.5 visits per 1,000 member months) and increased more significantly in the North Central region (+30.2 visits per 1,000 member months).

We further investigated changes according to enrollee characteristics. All-cause ED visits were slightly higher among Hispanic enrollees (+6.5 visits per 1,000 member months) and enrollees with SUD diagnoses and chronic conditions (+8.3 and +6.4 visits per 1,000 member months, respectively).

Exhibit 18.1. ED Visits for Adults with SMI

Metric	2020	2022	Adjusted Change
[16] Mental Health Services Utilization - Emergency Department	0.9%	0.6%	-0.3%*
Emergency Department Visit Rate for Adults with SMI (per 1,000 member months) - overall	138.4	127.1	+3.4
IMC region Greater Columbia	131.2	122.2	+3.9
IMC region King	161.3	145.8	+4.9
IMC region North Sound	119.6	105.6	+1.2
IMC region Pierce	157.7	149.4	+3.8
IMC region Spokane	137.6	128.7	-1.0
IMC region Thurston-Mason	120.3	118.3	+13.5
IMC region Salish	144.9	119.0	-11.2
IMC region Great Rivers	138.3	117.4	-5.7
IMC region Southwest Washington	116.2	108.0	+6.9
IMC region North Central	103.2	121.5	+30.2*
Black	188.6	179.5	+7.7
White	140.6	130.8	+3.1
Hispanic	110.7	104.1	+6.5
AIAN	186.0	163.1	-9.5
Hawaiian/Pacific Islander	100.4	88.9	-3.5
Asian	68.3	64.5	+4.2
SUD diagnosis	239.1	236.2	+8.3
Chronic condition	170.8	164.2	+6.4*

Hypothesis 2: The SMI waiver will result in reductions in preventable readmissions to acute care hospitals and residential settings.

Exhibit 18.2 displays 30-day all-cause readmissions after psychiatric hospitalizations, including how they vary by geographic area or enrollee characteristics. We did not observe statistically significant changes in all-cause readmissions following psychiatric hospitalizations across the state or within geographic areas. Among subpopulations of enrollees, Asian enrollees were the only group to experience a statistically significant decrease (-9.4 percentage points) in readmissions between 2020 and 2022.

Exhibit 18.2. Follow-Up Care and Preventable Hospitalizations

Metric	2020	2022	Adjusted Change
[4] 30-Day Hospital Readmission for a Psychiatric Condition - overall	17.1%	15.6%	-0.6%
[4] 30-Day Hospital Readmission for a Psychiatric Condition - subgroups			
IMC region Greater Columbia^	12.6%	9.6%	-2.3%
IMC region King	17.5%	18.2%	+0.9%
IMC region North Sound	18.8%	16.2%	-1.8%
IMC region Pierce^	17.2%	15.2%	+0.1%
IMC region Spokane	17.2%	13.6%	-2.0%
IMC region Thurston-Mason^	17.4%	13.0%	-3.7%
IMC region Salish^	17.8%	13.5%	-3.0%
IMC region Great Rivers^	14.4%	15.3%	+1.9%
IMC region Southwest Washington^	16.5%	19.0%	+3.3%
IMC region North Central^	21.3%	12.8%	-6.1%
Black^	20.3%	16.1%	-3.0%
White	17.3%	15.7%	-0.6%
Hispanic^	13.5%	15.6%	+3.0%
AIAN^	16.9%	15.5%	-1.4%
Hawaiian/Pacific Islander^	18.6%	14.5%	-2.6%
Asian^	17.5%	10.5%	-9.4%*
SUD diagnosis	19.7%	18.3%	-0.5%
Chronic condition	18.6%	17.2%	-0.6%

Key informant perspectives on reducing preventable readmissions to acute care hospitals and residential settings

The SMI waiver also required MCOs to assist with discharge planning. MCOs reported making staffing changes to ensure dedicated individuals worked with the IMDs to coordinate discharges. The SMI waiver increased MCO involvement in patient care transitions and allowed MCOs to assist IMDs with providing appropriate post-discharge care. However, each MCO reported different implementation approaches, ranging from substantially more involvement to limited changes. This new functionality appeared to be at a developmental stage among most MCOs.

Hypothesis 3: The SMI waiver will result in improved availability of crisis stabilization services throughout the state.

Exhibit 18.3 describes changes in crisis stabilization services between 2020 and 2021, displayed as ratios of Apple Health enrollees with SMI or SED to crisis services. Generally, lower ratios are better (fewer enrollees per service). In 2021, there were 2,738 Apple Health enrollees with SMI/SED per crisis stabilization unit, or a decrease of 467 enrollees per unit, representing expanded capacity. However, there were slight decreases in capacity needed to meet Apple Health enrollee need in crisis call centers, mobile crisis units, crisis assessment centers, and coordinated community crisis response teams. At least some of these relative decreases in capacity represent increased enrollment with relatively stable absolute numbers of centers, units, and teams.

Exhibit 18.3. Crisis Stabilization Services

Measure/variable	Statewide average		Change
	2020	2021	
Ratio of Apple Health Enrollees with SMI/SED to Crisis Stabilization Units	3205	2738	-467
Ratio of Apple Health Enrollees with SMI/SED to Crisis Call Centers	2604	2738	134
Ratio of Apple Health Enrollees with SMI/SED to Mobile Crisis Units	2451	2577	126
Ratio of Apple Health Enrollees with SMI/SED to Crisis Observation/ Assessment Centers	1190	1251	61
Ratio of Apple Health Enrollees with SMI/SED to Coordinated Community Crisis Response Teams	2604	2738	134

Changes in the use of IMDs. IMDs play a crucial role as an adjunct to crisis stabilization services by providing a structured and supportive environment that fosters ongoing recovery and stability after acute episodes. Key informants described a variety of perceived benefits of the SMI waiver. Key informants from provider organizations reported that the longer maximum stays in IMDs improved patient care and aligned with the needs of patients in crisis. In addition, the SMI waiver, in conjunction with the SUD waiver, created new flexibility in how beds were used or assigned, creating opportunities to increase capacity even though the number of beds did not change. One provider organization interviewee described how their IMD had been required to designate beds as SUD, mental health, and co-occurring disorders. Before the SMI waiver, these beds could only be used by individuals with a diagnosis indicated by the bed type. The SMI waiver permitted temporarily flexing the bed type allocation, letting the IMD shift its capacity according to patient needs.

The SMI waiver also allowed for IMDs to treat co-occurring disorders simultaneously from the same bed. Prior to the SMI waiver, if a patient came in needing both SUD and mental health services, they first had to be put in a SUD bed and finish their SUD treatment before receiving any mental health services. Patients may have had to wait for a mental health bed to become available to "move" and receive those services. The requirement to sequester these services created a barrier to providing complex patients with the highest quality care by restricting co-occurring care. This requirement resulted in inefficient bed use, with patients spending more time in the IMD waiting for the right bed designation. The SMI waiver's flexibility improved the IMD's ability to allocate beds to reflect patient needs.

Hypothesis 4: Access of enrollees with SMI/SED to community-based services to address their chronic mental health care needs will improve under the demonstration, including through increased integration of primary and behavioral health care.

Our assessment of outcomes for hypothesis 4 includes changes between 2020 and 2022 in measures of access to specific services, including the proportion of enrollees with SMI who use mental health services, changes in the use of antipsychotics, and follow-up care for adults taking a new antipsychotic (Exhibit 18.4). Between 2020 and 2022, there was no significant change in the proportion of enrollees with SMI who used mental health-related outpatient, rehabilitation, and targeted case management services and long-term services and supports (LTSS) or in the proportion using home and community-based services or LTSS. However, there was a slight decrease (-2.3 percentage points) in the proportion who used health-related outpatient, rehabilitation, and targeted case management services.

Exhibit 18.4 also displays changes in the percentage of children and adolescents ages 1 to 17 who had a new prescription for an antipsychotic medication and had documentation of psychosocial care as first-line treatment, as well as the percentage of new antipsychotic prescriptions for Apple Health enrollees ages 18 and older who have completed a follow-up visit with a provider with prescribing authority within four weeks (28 days) of prescription of an antipsychotic medication. Both measures showed a statistically significant decline of 5.4 percentage points.

Exhibit 18.4. Changes in the Use of Specific Services and Use of Appropriate Antipsychotic

Metric	2020	2022	Adjusted Change
People with SMI/SED who Use Both: (1) Mental Health Related Outpatient, Rehabilitation, and Targeted Case Management Services; and (2) LTSS	1.4%	1.3%	0.0%
Mental Health Related Home and Community-Based Services	1.9%	1.8%	0.0%
Mental Health Related Outpatient, Rehabilitation, and Targeted Case Management Services	19.9%	17.5%	-2.3%*
Mental Health Related LTSS	0.1%	0.1%	0.0%
[2] Use of First-Line Psychosocial Care for Children & Adolescents on Antipsychotics	67.3%	61.9%	-5.4%*
[30] Follow-Up Care for Adults Taking a New Antipsychotic Medication	74.6%	69.1%	-5.4%*

Exhibits 18.5-18.9 provide measures of the availability of specific types of community-based services needed to comprehensively address the chronic needs of enrollees with SMI/SED, demonstrating changes between 2020 and 2021.

Exhibit 18.5 shows measures of capacity for psychiatrists or other practitioners who can prescribe psychiatric medications ("prescribers"). In 2021, there were 12.4 Apple Health enrollees with SMI/SED per prescriber, representing a slight improvement over 2020. Exhibit 18.5 also provides information on the estimates of the number of psychiatrists in total relative to those with SMI enrolled in Apple Health. However, these data are limited: there is a clear discrepancy in the data, with the total number of psychiatrists reported as being smaller than those who are Apple Health-enrolled. The estimate of the total number of psychiatrists is derived from the Washington Medical Commission, the only source Washington has that breaks out principal areas of practice. Thus, the absolute ratios reported in the last two rows have significant limitations in providing information about the percentage of prescribers serving Apple Health enrollees. However, they suggest relative stability in the 2020-2021 trends.

Exhibit 18.5. Psychiatrists or Other Practitioners Who Are Authorized to Prescribe Psychiatric Medications

Measure/variable	Statewide average		Change
	2020	2021	
Ratio of Apple Health Enrollees with SMI/SED to Apple Health-Enrolled Psychiatrists or Other Prescribers	13.2	12.4	-0.8
Ratio of Total Psychiatrists or Other Prescribers to Apple Health-Enrolled Psychiatrists or Other Prescribers	0.3	0.3	0.0
Ratio of Apple Health-Enrolled Psychiatrists or Other Prescribers to Apple Health-Enrolled Psychiatrists or Other Prescribers Accepting New Apple Health Patients	1.4	1.4	0.0

Exhibit 18.6 shows measures of capacity for Other Practitioners Certified and Licensed to Independently Treat Mental Illness ("non-prescribers"). In 2021, there were 3.01 Apple Health enrollees with SMI/SED per non-prescriber, representing a slight improvement since 2020. The ratio of total non-prescribers to non-prescribers who were Apple Health-enrolled was 2.1 in 2021, suggesting that about half of all providers in this category were registered to serve Apple Health enrollees. The ratio of total Apple Health-enrolled non-prescribers to those accepting new patients was 1.5 in 2021, meaning that about 68% of Apple Health-enrolled providers were available to see new enrollees.

Exhibit 18.6. Other Practitioners Certified and Licensed to Independently Treat Mental Illness

Measure/variable	Statewide average		Change
	2020	2021	
Ratio of Apple Health Enrollees with SMI/SED to Apple Health-Enrolled Other Practitioners Certified or Licensed to Independently Treat Mental Illness	3.2	3.0	-0.2
Ratio of Other Practitioners Certified or Licensed to Independently Treat Mental Illness to Apple Health-Enrolled Other Practitioners Certified or Licensed to Independently Treat Mental Illness	2.3	2.1	-0.2
Ratio of Apple Health-Enrolled Other Practitioners Certified and Licensed to Independently Treat Mental Illness to Apple Health-Enrolled Other Practitioners Certified and Licensed to Independently Treat Mental Illness Accepting New Patients	1.5	1.5	0.0

Exhibit 18.7 shows measures of capacity for Community Mental Health Centers ("CMHCs"). In 2021, there were 42 Apple Health Enrollees with SMI/SED per CMHC, representing a slight improvement since 2020. The ratio of total CMHCs to CMHCs that were Apple Health-enrolled was less than one, suggesting a data anomaly in the count of total CMHCs (since the number of total CMHCs should be greater than those enrolled in Apple Health). However, these ratios were relatively stable between 2020 and 2021.

Exhibit 18.7. Community Mental Health Centers

Measure/variable	Statewide average		Change
	2020	2021	
Ratio of Apple Health Enrollees with SMI/SED to Apple Health- Enrolled CMHCs	43	42	-1
Ratio of Total CMHCs to Apple Health- Enrolled CMHCs	0.8	0.7	-0.1
Ratio of Apple Health-Enrolled CMHCs to Apple Health-Enrolled CMHCs Accepting New Patients	1.0	1.0	0.00

Exhibit 18.8 shows measures of capacity for Intensive Outpatient Services ("IOP"). In 2021, there were 348 Apple Health enrollees with SMI/SED per IOP institute, representing an increase of 52 enrollees per IOP institute since 2020 (i.e., a decrease in capacity.) The ratio of total IOPs to IOPs that were Apple Health-enrolled was close to one, suggesting that most IOPs accepted Apple Health enrollees, and most were accepting new patients.

Exhibit 18.8. Intensive Outpatient Services

Measure/variable	Statewide average		Change
	2020	2021	
Ratio of Apple Health Enrollees with SMI/SED to Apple Health-Enrolled Providers Offering Intensive Outpatient Services	296	348	52
Ratio of Total Facilities/ Programs Offering Intensive Outpatient Services to Apple Health-Enrolled Providers Offering Intensive Outpatient Services	1.2	1.3	0.1
Ratio of Apple Health-Enrolled Providers Offering Intensive Outpatient Services to Apple Health-Enrolled Providers Offering Intensive Outpatient Services Accepting New Apple Health Patients	1.0	1.0	0.0

Exhibit 18.9 displays measures of capacity for federally qualified health centers (FQHCs). In 2021, there were 189 Apple Health enrollees with SMI/SED per FQHC, representing a slight decrease in capacity since 2020.

Exhibit 18.9. Federally Qualified Health Centers

Measure/variable	Statewide average		Change
	2020	2021	
Ratio of Apple Health Enrollees with SMI/SED to FQHCs that Offer Behavioral Health Services	184	190	6

In general, the data above suggest relative stability across most capacity measures. One pattern that emerged is the appearance of small relative increases in capacity among providers (e.g., psychiatrists and other practitioners) and small relative decreases in capacity among facilities. These changes may reflect relative stability in the actual number of facilities in 2020-2021, accompanied by slight increases in the number of Apple Health enrollees with SMI/SED.

Key informant perspectives on changes in community-based services

One notable change occurring with the SMI waiver was the expansion of the New Journeys Program, a person-centered, evidence-based treatment model for individuals experiencing a first episode of psychosis that was developed by HCA and the University of Washington School of Medicine. Participants receive wraparound services, including evidence-based psychotherapy, supported employment and education, family education, medication management, and sometimes peer support and case management. The program focused on shared decision-making and structure to help patients achieve their goals. Prior to the SMI waiver, the New Journeys program was only available in part of the state, but it was expanded under the SMI waiver to reach youth and provide access to these services statewide.

Hypothesis 5: The SMI waiver will result in improved care coordination, especially continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities.

Exhibit 18.10 displays care continuation measures. Rates of 30-day and 7-day follow-up after ED visits for alcohol or drug use for adults did not exhibit statistically significant changes between 2020 and 2022. However, several other measures moved in directions that suggested worsening care coordination. While rates of 30-day follow-up after hospitalization for mental illness among enrollees ages 6 to 17 did not demonstrate statistically significant changes, there was a significant decrease of 7.7 percentage points in 7-day follow-up between 2020 and 2022. Among adults, 30-day and 7-day rates both decreased between 2020 and 2022. Measures of medication continuation after inpatient hospital discharges decreased by 5.9 percentage points.

Exhibit 18.10. Changes in Care Coordination Measures

Metric	2020	2022	Adjusted Change
[9] 30-Day Follow-Up After ED Visit for Alcohol/Drug Use	51.6%	50.8%	-0.5%
[9] 7-Day Follow-Up After ED Visit for Alcohol/Drug Use	36.0%	35.0%	-0.9%
[6] Medication Continuation Following Inpatient Psychiatric Discharge	74.6%	68.9%	-5.9%*
[7] 30-Day Follow-Up After Hospitalization for Mental Illness (Age 6 to 17)	83.5%	82.4%	-1.3%
[7] 7-Day Follow-Up After Hospitalization for Mental Illness (Age 6 to 17)	68.2%	60.4%	-7.7%*
[8] 30-Day Follow-Up After Hospitalization for Mental Illness (Age 18+)	70.0%	64.4%	-5.9%*
[8] 7-Day Follow-Up After Hospitalization for Mental Illness (Age 18+)	52.1%	43.5%	-8.9%*

Key informant perspectives on care coordination

The SMI waiver increased MCO access to medical information regarding patient care in IMDs. Prior to the waiver, MCOs did not automatically receive this information since they were not the payer. We spoke with four MCO key informants to discuss this change. While access to this information dramatically altered the care one MCO delivered, the other three MCO key informant interviewees did not articulate using this medical information to assist with care transitions and discharge plans. The lack of greater engagement by more MCOs may partially explain the lack of observed improvement in the care coordination measures.

To assist with care coordination, several HIT initiatives were slated to be expanded under the SMI waiver, including electronic consent management, an enhanced crisis call and response, closed-loop referral and electronic referral,

an electronic bed registry, and an expansion of telehealth technologies to support collaborative care. The expansion of telehealth was expedited by the COVID-19 PHE. However, the other technology improvements require additional funding to be implemented. As of this writing, HCA had identified a vendor to develop the electronic consent management and had plans to select a vendor in July 2024 for the enhanced crisis call and response, closed-loop referral, and electronic referral systems. Work on the electronic bed registry tool continues, with an estimated completion timeline in 2025.

Hypothesis 6: The SMI waiver will result in changes in health care spending.

Exhibit 18.11 displays changes in health care expenditures for the SMI/SED population. Between 2020 and 2022, total expenditures increased by $42, which translated to a total increase of $27 in federal spending. However, these changes demonstrated an unusual pattern. Although unadjusted expenditures declined between 2020 and 2022 (from $703 to $681), the adjusted estimate displayed a statistically significant increase of $42. These findings suggest that, even as unadjusted spending remained relatively stable, the composition of the population shifted, with enrollees in 2022 having greater health risk than those in 2020.

Expenditures associated with IMDs declined slightly (an adjusted change of -$2) and expenditures for other mental health services also declined (an adjusted change of -$5). However, these changes were not statistically significant. In contrast, after adjusting for demographics and health risk, expenditures on non-mental health care demonstrated a statistically significant increase of $49.

Overall, these findings suggest that, even if spending crept up for the SMI/SED population during the 2020 and 2022 time period, it did not appear to be attributable to greater expenditures for IMDs or other mental health spending.

Exhibit 18.11. Changes in Per-Member Per-Month Health Care Expenditures

Metric	2020	2022	Adjusted Change
Total Spending Per Member, Per Month	$703	$681	+$42*
Total Federal Spending Per Member, Per Month	$440	$426	+$27*
IMD SMI Spending Per Member, Per Month	$32	$28	-$2
Non-IMD MH Spending Per Member, Per Month	$168	$160	-$5
Non-MH Spending Per Member, Per Month	$503	$493	+$49*
Emergency Department Spending Per Member, Per Month	$16	$18	+$3*
Other Outpatient Spending Per Member, Per Month	$318	$315	+$14*
Inpatient Spending Per Member, Per Month	$258	$222	+$2
Pharmacy Spending Per Member, Per Month	$153	$157	+$12*
LTSS Spending Per Member, Per Month	$111	$125	+$23*

Key informant perspectives on health care spending

State interviewees described the primary impact of the SMI waiver as a financial change. Before the waiver, services in IMDs were primarily paid for with state funding and were not reimbursable through Medicaid without a Section 1115 waiver. The SMI waiver allowed the state to receive a federal match for stays of up to 60 days. Access to Medicaid reimbursement in IMDs allowed Washington to use fewer general state dollars for inpatient care and freed those funds for other state initiatives as dictated by the state legislature.

While the SMI waiver provided the flexibility for co-occurring care, the IMD experienced reimbursement delays and challenges when billing MCOs. Each MCO had its own forms and expectations for documenting co-occurring treatment. The challenges in documentation were associated with reports of long delays and claims denials. Training

MCOs to better understand the care provided at the IMDs, streamlining documentation requirements across payers training, and training IMDs on proper documentation of these services may reduce these payment issues.

Contextualizing Information

Several factors contextualize SMI demonstration evaluation findings.

Washington's SMI waiver operated within a broader context of integration of physical and behavioral health under managed care, COVID-19 pandemic-related disruptions, and behavioral health workforce shortages. Increased demand for psychiatric and other behavioral health services during the evaluation time period were concurrent with decreases in workforce capacity.

As highlighted for the SUD IMD waiver, future implementers should be aware of challenges when transitioning purchasing strategies. Washington moved from a system of behavioral health focused regional pre-paid health insurance plans (PIHPs) to integrating physical and behavioral health care through its managed care organizations, which introduced significant disruption to the system. Future implementers should also establish systems that facilitate offering co-occurring enhanced care and are flexible to accommodate provide person-centered care that are not limited to pre-established levels of care.

To support COVID-19 pandemic recovery and strengthen its behavioral health system looking ahead into MTP 2.0, Washington State has made numerous targeted investments in behavioral health to strengthen and stabilize the behavioral health continuum of care.

The Washington State legislature established two committees—the Crisis Response Improvement Strategy (CRIS) and the Joint Legislative and Executive Committee on Behavioral Health (JLEC) to support improvements to the state's behavioral health system. Established in 2021, the CRIS support the implementation of the 988 hotline through a steering committee and its eight subcommittees. Subcommittee areas of focus include: rural and agricultural communities, cross-system collaboration, credentialing and training, and Tribal 988. Established in 2023, the JELC functions to improve access to behavioral health services. Subcommittees include community based behavioral health and workforce, administrative and structural issues, prevention and early intervention, and disparities and inequities. Given the timing of the establishment of both committees, the impact of the work of each is not likely not apparent in the MTP summative evaluation analyses.

The state has worked to reduce barriers and improve access to services through crisis delivery system support and workforce development. This includes continued commitment to telemedicine policies and best practices and efforts to bolster the workforce through expanded trainings, new provider types, expanded peer support services, and state plan amendments to ensure providers can bill within their full scope of practice. For example, the state created a new provider type in 2023 (Behavioral Health Support Specialists), expanded two provider types in 2023 (occupational therapists and peer specialist), and create the Psychological Associate credential in 2024. In addition, the state is partnering with the Office of the Insurance Commissioner to jointly implement by January 2028 the American Society of Addiction Medicine 4th edition to support coordination and alignment across the SUD and SMI waivers, including supporting providers to offer faster access to assessment and care and supporting providers to offer more co-occurring enhanced services.

Conclusions

We summarize our findings in accordance with the hypotheses we set out to measure.

Hypothesis 1: The SMI/SED demonstrations will result in reductions in utilization and length of stay in emergency departments. We did not find strong support for this hypothesis; on the one hand, the probability of any ED visits for mental health conditions decreased slightly. However, overall ED visits increased slightly between 2020 and 2022.

Hypothesis 2: The SMI/SED demonstration will result in reductions in preventable readmissions to acute care hospitals and residential settings. We did not find support for this hypothesis, with no detectable changes in preventable readmissions.

Hypothesis 3: The SMI/SED demonstration will result in improved availability of crisis stabilization services throughout the state. Our findings were mixed in our assessment of this hypothesis, with slight decreases in capacity in crisis call centers, mobile crisis units, and coordinated community crisis response teams. However, there were capacity increases in crisis stabilization units.

Hypothesis 4: Access of enrollees with SMI/SED to community-based services to address their chronic mental health care needs will improve under the demonstration. We did not find support for this hypothesis, with the proportion of enrollees using health-related outpatient, rehabilitation, and targeted case management services declining slightly between 2020 and 2022. We also observed decreases in the percentage of children and adolescents ages 1 to 17 who had a new prescription for an antipsychotic medication and had documentation of psychosocial care as first-line treatment, as well as the percentage of new antipsychotic prescriptions for Medicaid enrollees ages 18 and older who have completed a follow-up visit with a provider with prescribing authority within four weeks (28 days) of prescription of an antipsychotic medication. However, separate assessments suggest that provider capacity (psychiatrists, psychologists, and other practitioners) generally increased, although institutional capacity (clinics, health centers, intensive outpatient centers) showed reductions in capacity.

Hypothesis 5: The SMI/SED demonstrations will result in improved care coordination, especially continuity of care in the community following episodes of acute care in hospitals and residential treatment facilities. We did not find support for this hypothesis. While rates of 30-day follow-up after hospitalization for mental illness among enrollees ages 6 to 17 did not demonstrate statistically significant changes, there was a significant decrease of 7.7 percentage points in 7-day follow-up between 2020 and 2022. Among adults, 30-day and 7-day rates both decreased between 2020 and 2022. Measures of medication continuation after inpatient hospital discharges decreased by 5.9 percentage points.

Hypothesis 6: The SMI/SED demonstration will result in changes in health care spending. We did not observe changes in expenditures for mental health services. Among enrollees with SMI and SED, expenditures for IMDs and other mental health services were relatively flat between 2020 and 2022. However, adjusted health care expenditures unrelated to mental health services increased over that time period.

Recognizing competing drivers on evaluation outcomes beyond waiver activities including, but not limited to, the systems-level impact of the COVID-19 pandemic — outcomes described in this chapter cannot be attributed solely to the SMI IMD waiver's effects. Despite the lack of measurable quantitative effects, our qualitative data suggest that the SMI waiver resulted in a variety of delivery system changes. Key informants reported that the demonstration improved patient care quality and aligned better with patient needs. MCOs made staffing changes to ensure dedicated individuals worked with the IMDs to coordinate discharges. The SMI waiver increased MCO involvement in patient

care transitions and provided the potential for MCOs to assist IMDs with providing appropriate post-discharge care. The waiver also facilitated MCOs' involvement in care transitions and improved their access to medical information for patients in IMDs. This enhanced access to information has notably improved care delivery by one MCO, though others did not report similar use of the information. Furthermore, the SMI waiver introduced flexibility in bed usage, which was particularly beneficial with the concurrent participation in the SUD waiver, allowing for simultaneous treatment of co-occurring disorders. It also contributed to the expansion of the New Journeys Program, which focuses on person-centered, evidence-based treatment for individuals experiencing their first episode of psychosis.

Additionally, the state broadened its HIT capabilities, including electronic consent management, enhanced crisis call centers and response systems, closed-loop and electronic referrals, an electronic bed registry, and expanded telehealth technologies to support collaborative care. These initiatives collectively aim to improve patient care coordination, information sharing, and treatment options for individuals with mental health conditions.

In summary, the SMI waiver appears to have catalyzed a broad set of changes, but the impact of these changes is difficult to detect in claims-generated measures. Additional monitoring or prioritization may be warranted to achieve improved outcomes and respond to the growing need for acute mental health services.

Progress in Washington's Integrated Managed Care Initiative

Between 2017 and 2023, Washington was engaged in two large initiatives to integrate behavioral health and physical health care.

One initiative arose from the state's Section 1115 waiver. Washington's MTP program set up nine regional ACHs required to carry out HIPs designed to improve health and health equity. One mandatory component of the ACH work was Project 2A, "Bi-Directional Integration of Primary Care and Behavioral Health Services." As described in Chapter 6, this project focused on changes at the delivery system level, with ACHs required to implement at least one approach to integrate behavioral health into primary care settings and at least one approach to integrate primary care into the behavioral health setting. ACHs were also required to assess the level of integrated care model adoption among selected clinical partners, identify a target population, and facilitate health systems capacity building by embedding value-based payment, workforce development, and population health management strategies. Project 2A was mandatory for all ACHs, and statewide implementation efforts began in 2019.

In this chapter, we will discuss a related state-led effort: Integrated Managed Care (IMC). IMC was not supported by the Section 1115 waiver. IMC focused on financial integration at the MCO level. The Section 1115 waiver evaluation team had separate NIH funding (1R01MH123416 [PI McConnell]) to study the impacts of IMC. That study is ongoing and has produced two peer-reviewed publications.[18,19] This chapter summarizes that work and provides context for managed care integration generally, the implementation of IMC, and the results of the study analyses.

The Rationale for Financial Integration

Historically, states with managed care plans separated the financing of physical and behavioral health services, creating mental or behavioral health "carve-outs." In these scenarios, physical health is managed and reimbursed by the primary Medicaid MCO, with behavioral health services managed and reimbursed by a behavioral health organization (BHO). These approaches were justified by concerns – often raised by behavioral health advocates – that plans focused on physical health management lacked an understanding of behavioral health treatment, and blending funds in a comprehensive MCO might, therefore, favor physical health services at the expense of needed behavioral services. Throughout the early 2000s, carve-outs generally were seen as having favorable outcomes, with a 2007 review concluding that, "although not perfect, carve-outs have been instrumental in addressing long-standing challenges in utilization, access, and cost of behavioral health care."[20] Within Medicaid, their review found carve-outs associated with lower utilization of psychiatric inpatient services but did not find strong associations with outpatient utilization or quality.

However, new evidence on integrating physical and behavioral health at the clinic level began to question whether carve-out arrangements could be barriers to better outcomes for Medicaid enrollees.[21–23] A robust evidence base, including multiple 80 randomized trials, demonstrated the effectiveness of integrated models in improving patient outcomes.

Given the strong support for integration at the clinic level, states began to reconsider the carve-out model. Carve-outs create separate payers and networks, potentially restricting reimbursement for physical and mental health services, impeding communication across systems, and creating complexity for enrollees. Carve-out arrangements were ultimately perceived as incompatible with behavioral health integration and a critical barrier to better outcomes for Medicaid enrollees. These concerns served as background for Washington's IMC initiative.

Washington's IMC Initiative

Washington launched its IMC initiative in 2016. Under this initiative, Apple Health enrollees received physical and behavioral health services through a single integrated managed care plan responsible for payment. Washington's move to integrated managed care was staged at the county level, with implementation occurring at one of five time periods (April 2016, January 2018, January 2019, July 2019, and January 2020). All regions were required to transition to IMC by 2020.

IMC required Washington's five existing MCOs to submit competitive bids to be awarded contracts to cover and reimburse physical and behavioral health services. The bidding process occurred across ten managed care regions (encompassing 39 counties). Existing BHOs were expected to dissolve.

A study by Washington's Research and Data Analysis Division assessed changes in the first year of IMC for group 1, which transitioned to IMC in April 2016, compared to the rest of the state. This evaluation found IMC to be associated with improvements in mental health access, reductions in psychiatric inpatient readmissions, and improvements in diabetes screening rates for individuals with SMI.[24] Among individuals with co-occurring mental illness and SUD, IMC was associated with improvements in measures of social determinants of health, including reductions in arrests and homelessness.

Study Results from NIH-funded Work

The study team (led by PI McConnell) conducted a mixed-methods analysis of the IMC project. The study leveraged the staged roll-out of IMC to assess the association between financial integration at the managed care level and a rich set of claims-based measures of health services use, quality, and health-related outcomes. The study included separate analyses for individuals with mild, moderate, or no mental health conditions and those with SMI, anticipating that the IMC effort would have more fundamental changes to the delivery system for individuals with SMI. The quantitative analyses were supplemented with interviews with key informants in Washington to provide context of the on-the-ground experience of the IMC implementation.

The first publication described the impacts of IMC on the first group to transition (April 2016). Outcomes were analyzed through 2019, comparing the early transition group to counties that did not transition during the study period, using a difference-in-differences methodology. The early transition group was of interest because the benefits of integration might plausibly take two to three years to emerge, with smaller gains or possible setbacks happening thereafter. This study allowed for 15 quarters (almost four years) of post-intervention observations, providing a relatively long period to observe potential changes. This analysis included 108,875 unique enrollees (5,411 with SMI, 103,464 without SMI) in the two intervention counties and 203,486 unique enrollees in the ten comparison counties (12,222 with SMI, 191,266 without SMI), coupled with 15 interviews of stakeholders and MCO representatives.

This study found that, for the early transition group, IMC was initially disruptive for behavioral health providers and was associated with a temporary decline in access to outpatient mental health services among enrollees with SMI, but had no statistically significant or sustained differences after the first year. Enrollees with SMI also experienced a slight increase in access to primary care (1.8%, 95% CI 1.0% to 2.6%) but no sustained statistically significant changes in the use of ED or inpatient services for mental health care. The transition to financially integrated care

had relatively little impact on primary care providers, with few changes for enrollees with mild, moderate, or no mental illness.

The second publication focused on outcomes for the larger group of counties and enrollees that transitioned in 2018 and 2019. The study also used a difference-in-differences approach, including data on 1,454,185 individuals ages 13-64 enrolled in Washington's Apple Health MCOs in 2014-2019, supplemented with interviews of 24 behavioral health agency leaders, managed care administrators, and individuals participating in the IMC transition.

The study used claims-based measures of utilization (including outpatient mental health visits and primary care visits), health-related outcomes (including self-harm events), rates of arrests, employment, and homelessness, and additional quality measures. Among enrollees with mild, moderate, or no mental illness, financial integration was not associated with significant changes in claims-based outcomes up to 2 years of follow-up. There was a similar pattern among enrollees with serious mental illness, although financial integration was associated with a 1.2 percentage point decrease in employment (95% CI -1.9, -0.5; p = 0.01). The study also found that the introduction of Collaborative Care Model Codes – CPT codes designed to support integration - were rarely used. They first appeared in 2018 and were associated with only 1,740 out of 3,538,755 outpatient mental health claims (0.05%) in 2018-2019, suggesting relatively little uptake.

Interviews with key informants indicated that financial integration was perceived as an administrative change and did not have substantial implications for how practices delivered care. Most primary care clinics had already established agreements with MCOs, with IMC implementation requiring relatively little change. However, behavioral health agencies were required to form new agreements with MCOs. These new contracts often demanded modifications to enable billing for primary care services within behavioral health settings. Behavioral health agencies and community leaders expressed a lack of support and expertise in finding and implementing suitable integrated care models that matched their organization's size, services, and patient demographics. Additionally, ongoing regulatory and licensing barriers restricted the range of services and integrated care models available to behavioral health agencies. For instance, the requirement for a comprehensive intake prior to providing services under behavioral health agency licensure hindered the possibility of offering short-term therapy sessions, which could have been instrumental in integrating physical and mental health care.

These results suggest that carve-ins, or financial integration, did not uniformly drive positive changes at the delivery system level. On the other hand, financial integration was not associated with adverse effects. This finding stands in contrast to earlier literature that found carve-out models to be more likely to improve access.[20] Moreover, financial integration may have reduced complexity for enrollees without sacrificing access.

While financial integration alone may not be sufficient to improve mental health outcomes, it may be a necessary first step, allowing states to layer additional training, incentives, and supports onto a single accountable plan. IMC may also have encouraged coordination between behavioral health and physical health and supported the resolution of barriers a complex client might experience, potentially requiring less escalation to the state level for resolution. IMC was also accompanied by increased choices for enrollees, with the ability to choose 4 out of 5 MCOs statewide.

Washington is pursuing this approach with an Integrated Care Assessment (WA-ICA) initiative.[25] The WA-ICA is intended to collect data to assess the extent to which delivery system integration occurs across the state and support policy and funding needs. Completion of the assessment is voluntary at this time, but the state has recommended it as a tool for practices. Washington requested funding for the WA-ICA in its most recent Section 1115 waiver application, but the request was pended by CMS, and HCA is assessing opportunities for sustainable funding.

For additional details on these analyses, refer to the published papers.[18,19]

CHAPTER 20

Summative Evaluation Conclusions and Recommendations

Washington's MTP 1.0 was an ambitious, multi-faceted effort to integrate and transform the state's health care delivery and payment system. In doing so, MTP 1.0 sought to improve outcomes and increase equitable access to care for a wide range of Apple Health enrollees – including children, mothers, adults with chronic disease, individuals with mental health and substance use disorders, and people with complex health and social service needs.

MTP 1.0 evolved a great deal over the course of its implementation. MTP 1.0's project scope grew substantially through two separate waiver amendments. In 2018, MTP 1.0 expanded to include an additional amendment regarding substance use disorder (SUD IMD waiver); in 2020, the project scope expanded again to include an amendment for mental health treatment in certain inpatient facility settings (SMI IMD waiver). In 2021, given the strain the COVID-19 PHE had on both state resources and MTP 1.0 implementer and partner capacities, MTP 1.0 was extended through December 31, 2022, for an additional PHE extension year. Finally, MTP 1.0 was extended one final time through June 30, 2023 to allow CMS and the state time to finalize MTP 2.0 negotiations. In total, the MTP 1.0 project:

- Spanned efforts underlying health system performance, including value-based payment (VBP), workforce capacity, and health information technology (HIT);
- Funded ACHs – regional entities designed to align health care and social-service sectors and address social determinants of health;
- Supported informal caregivers, with the goal of delaying or avoiding transition to the use of traditional long-term services and supports (LTSS);
- Funded housing and employment supports for individuals with qualifying social risk and needs-based factors; and
- Maintained and expanded access to inpatient and residential treatment for substance use disorders and mental health treatment in certain types of inpatient facility settings.

HIGHLIGHTED KEY FINDINGS

- **ACHs and HIPs (Initiative 1).** *There was significant progress in opioid treatment. While quantitative, claims-based measures did not move in the intended direction across most other HIPs, qualitative data indicated a variety of efforts by ACHs to strengthen connections and build capacity. There was progress in the use of VBP and the adoption of and functionality of HIT. However, efforts to improve the exchange of information across organizations met headwinds.*
- **MAC and TSOA (Initiative 2).** *The MAC and TSOA programs were characterized by differential growth in enrollment, with the TSOA program notably outpacing MAC in participant numbers. Despite its small enrollment, participation in the MAC program was associated with significant reductions in hospital readmission rates, showcasing its potential for improving some health outcomes.*
- **FCS (Initiative 3).** *The FCS programs contributed to a modest decrease in homelessness and significant improvements in employment for participants. Additionally, engagement with FCS programs led to decreased arrest rates and improvements in healthcare utilization and quality, especially in measures of appropriate medication use among those with mental health conditions.*
- **SUD Waiver (Initiative 4).** *While there were mixed results in most measures of SUD treatment, there were substantial increases in provider capacity for SUD treatment and improvements in the use of medications for opioid use disorders. Early intervention measures and readmission rates worsened during the demonstration period, suggesting areas needing further attention.*
- **SMI Waiver (Initiative 5).** *The SMI waiver had mixed impacts on crisis services and was not significantly associated with preventable readmissions or overall ED visits. However, qualitative interviews suggested that treatment centers had improved their care coordination processes and saw improvements in capacity and the quality of patient care, highlighting a positive shift in some service aspects despite the lack of change in quantitative measures.*
- **HIT, integration, and data sharing**. *Across various initiatives, there was a strong emphasis on the need for better technology integration and data sharing. Improved data systems could enhance outcomes by enabling more accurate tracking of program impacts and better targeting of services. There was also mention of challenges faced due to the lack of standardized data collection methods across programs, which affects the ability to assess and compare the effectiveness of different initiatives.*
- **Community engagement and stakeholder collaboration.** *A recurring theme in the findings was the critical role of community engagement and collaboration among stakeholders. Fostering stronger partnerships and community involvement can amplify the success of state programs and initiatives.*
- **Resilience through the COVID-19 PHE.** *Washington demonstrated considerable resilience, characterized by its health systems' adaptability, with ACHs playing a vital role in responding to the PHE, working with community organizations and clinical partners to support community members and during the pandemic.*

Recommendations

We highlight key recommendations arising from the MTP 1.0 Summative Evaluation report below:

1. **Tailor resources and support to individual ACH needs.** ACHs varied considerably in terms of their catchment area's characteristics – community health needs, workforce capacity, and community resources – as well as the ACH's organizational characteristics – funding, technological capacities, staff composition, community partnerships, and experience with working with health and behavioral health care practices. The state should consider tailoring investments in training, progress monitoring, and incentive payments that reflect the strengths and challenges each ACH faces in implementing MTP project work, particularly as the ACHs gear up to conduct the Community Hub work of MTP 2.0.

2. **Support recruitment and retention of key workers that are necessary for MTP success.** Workforce shortages among primary care providers, behavioral health providers, and community-based workers may have constrained MTP's effectiveness. The state should identify state-level strategies to address critical workforce shortages through targeted state-level initiatives that focus on training, recruitment, and retention strategies, particularly for underserved regions and high-need sectors, including primary care, behavioral health, and in-home long-term services and supports.

3. **Foster collaboration and alignment of resources across Washington's SUD and SMI IMD waivers.** Given the commonly co-occurring nature of SUD and mental health conditions and interplay between both waivers, the state should consider convening experts from the residential SMI and SUD settings to identify the best ways to build on both waivers' financial resources to improve care for both populations.

4. **Enhance community engagement in health planning and implementation.** In addition to the efforts the state is already implementing to reduce health disparities, Washington should engage with communities most impacted by health inequities to increase culturally competent care and improve access to healthcare for specific populations.

5. **Apply lessons learned from MTP 1.0 health information technology (HIT) integration barriers when implementing a statewide community information exchange (CIE) as part of MTP 2.0.** As the state devises an implementation strategy for its CIE, it should consider lessons learned from its MTP 1.0 HIT work. These include challenges stemming from the diversity of HIT programs in use, the distinctly regional focus of ACHs, and the barriers to engagement faced by community-based partners.

6. **Delineate what falls in Washington state agency scope to address health-related social needs (HRSN) in MTP 2.0; communicate with state leaders what falls outside of state agency scope.** Scaling and expanding efforts started in MTP 1.0 to address HRSN will require deepened, trust-based partnerships between health systems and community-based organizations. Novel contracting types, expanded referral networks, and increased administrative and technological capacities will be necessary to effectively address HRSN. However, some factors, such as housing supply and affordability, are likely critical to successful implementation but fall out of state agency scope.

7. **Leverage the opportunity to articulate a clear, integrated vision for MTP 2.0.** The transition from MTP 1.0 to MTP 2.0 presents an opportunity for Washington to define and articulate its vision for Apple Health. While the MTP 1.0 and 2.0 waiver designs are comprehensive, they may lack a cohesive strategic direction and clear accountability. This absence of a unified framework and specified responsibilities increases the likelihood of fragmented service provision and inefficiencies, potentially diminishing the effectiveness of the initiatives. Washington has a compelling story about its Apple Health approach and can further establish itself as a leader in Medicaid reform. By clearly defining its vision, Washington can inspire stakeholders, focus efforts, and set priorities for achieving its strategic objectives.

Conclusion

The evaluation of MTP 1.0 highlights both achievements and areas for improvement as the state moves into MTP 2.0. Key successes include expanded access to healthcare services and integration of social determinants of health into care models. However, the state faced challenges, including inconsistent implementation across regions and unclear accountability structures. The COVID-19 PHE posed unprecedented challenges. It generated a massive shock to the health care system and is likely to have considerably affected our quantitative measures of progress.

Looking forward, MTP 2.0 provides a notable opportunity for Washington to refine its approach. A unified vision that clearly defines roles and enhances coordination across all services may be needed to deliver on ambitious goals set out over the next five years. This phase will be essential for addressing immediate needs and setting a long-term vision for a resilient, innovative Medicaid system in Washington.

References

1 Delivery System Reform Incentive Payment (DSRIP) Measurement Guide. Published online 2022.

2 Bittinger K, Court B, Mancuso D. *Evaluation of Integrated Managed Care for Medicaid Beneficiaries in Southwest Washington: First Year Outcomes*. Washington State Research and Data Analysis Division; 2019. Accessed February 13, 2019. https://www.hca.wa.gov/assets/program/rda-evaluation-report.pdf

3 McConnell KJ, Edelstein S, Hall J, et al. The effects of behavioral health integration in Medicaid managed care on access to mental health and primary care services-Evidence from early adopters. *Health Serv Res*. Published online January 12, 2023. doi:10.1111/1475-6773.14132

4 McConnell KJ, Edelstein S, Hall J, et al. Access, Utilization, and Quality of Behavioral Health Integration in Medicaid Managed Care. *JAMA Health Forum*. 2023;4(12):e234593. doi:10.1001/jamahealthforum.2023.4593

5 Washington State Health Care Authority. *2023 Paying for Value Survey Results: Washington State Providers and Health Plans Report on Their Value -Based Purchasing Experiences*. Washington State Health Care Authority; 2023. Accessed March 12, 2024. https://www.hca.wa.gov/assets/program/2022-p4v-survey-exec-summary.pdf

6 Washington State Health Care Authority. Washington Medicaid Transformation Project Evaluation Design, 2022. Accessed April 24, 2024. https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/wa/wa-stc-ca-04262022.pdf

7 Washington State Health Care Authority. Paying for Health and Value: Health Care Authority's Long-term Value-based Purchasing Roadmap 2023-2027. Published online February 2023. Accessed April 22, 2024. https://www.hca.wa.gov/assets/program/vbp-roadmap.pdf

8 Washington State Health Care Authority. Value-based Purchasing (VBP) Roadmap Apple Health Appendix 2022 update. Published online 2022. https://www.hca.wa.gov/assets/program/vbp-roadmap-apple-health-appendix.pdf

9 Washington State Health Care Authority. 2021 Paying for Value survey results: Washington State providers and health plans report on their value -based purchasing experiences. Published online February 15, 2022. Accessed April 22, 2024. https://www.hca.wa.gov/assets/program/2021-p4v-survey-results-webinar.pdf

10 Washington State Health Care Authority. Medicaid Transformation Project (MTP) Toolkit. Published online May 2022. https://www.hca.wa.gov/assets/program/project-toolkit-approved.pdf

11 Unützer J, Katon W, Callahan CM, et al. Collaborative care management of late-life depression in the primary care setting: a randomized controlled trial. *JAMA*. 2002;288(22):2836-2845. doi:10.1001/jama.288.22.2836

12 Gilbody S, Bower P, Fletcher J, Richards D, Sutton AJ. Collaborative care for depression: a cumulative meta-analysis and review of longer-term outcomes. *Arch Intern Med*. 2006;166(21):2314-2321. doi:10.1001/archinte.166.21.2314

13 Hunkeler EM, Katon W, Tang L, et al. Long term outcomes from the IMPACT randomised trial for depressed elderly patients in primary care. *BMJ*. 2006;332(7536):259-263. doi:10.1136/bmj.38683.710255.BE

14 O'Connor EA, Whitlock EP, Beil TL, Gaynes BN. Screening for depression in adult patients in primary care settings: a systematic evidence review. *Ann Intern Med*. 2009;151(11):793-803. doi:10.7326/0003-4819-151-11-200912010-00007

15 Archer J, Bower P, Gilbody S, et al. Collaborative care for depression and anxiety problems. *Cochrane Database Syst Rev*. 2012;10:CD006525. doi:10.1002/14651858.CD006525.pub2

16 Thota AB, Sipe TA, Byard GJ, et al. Collaborative care to improve the management of depressive disorders: a community guide systematic review and meta-analysis. *Am J Prev Med*. 2012;42(5):525-538. doi:10.1016/j.amepre.2012.01.019

17 Woltmann E, Grogan-Kaylor A, Perron B, Georges H, Kilbourne AM, Bauer MS. Comparative effectiveness of collaborative chronic care models for mental health conditions across primary, specialty, and behavioral health care settings: systematic review and meta-analysis. *Am J Psychiatry*. 2012;169(8):790-804. doi:10.1176/appi.ajp.2012.11111616

18 Siu AL, US Preventive Services Task Force (USPSTF), Bibbins-Domingo K, et al. Screening for Depression in Adults: US Preventive Services Task Force Recommendation Statement. *JAMA*. 2016;315(4):380-387. doi:10.1001/jama.2015.18392

19 Miller CJ, Grogan-Kaylor A, Perron BE, Kilbourne AM, Woltmann E, Bauer MS. Collaborative chronic care models for mental health conditions: cumulative meta-analysis and metaregression to guide future research and implementation. *Med Care*. 2013;51(10):922-930. doi:10.1097/MLR.0b013e3182a3e4c4

20 Druss BG, Rohrbaugh RM, Levinson CM, Rosenheck RA. Integrated medical care for patients with serious psychiatric illness: a randomized trial. *Arch Gen Psychiatry*. 2001;58(9):861-868. doi:10.1001/archpsyc.58.9.861

21 Druss BG, von Esenwein SA, Compton MT, Rask KJ, Zhao L, Parker RM. A randomized trial of medical care management for community mental health settings: the Primary Care Access, Referral, and Evaluation (PCARE) study. *Am J Psychiatry*. 2010;167(2):151-159. doi:10.1176/appi.ajp.2009.09050691

22 Druss BG, von Esenwein SA, Glick GE, et al. Randomized Trial of an Integrated Behavioral Health Home: The Health Outcomes Management and Evaluation (HOME) Study. *Am J Psychiatry*. 2017;174(3):246-255. doi:10.1176/appi.ajp.2016.16050507

23 National Council for Behavioral Health. Standard Framework for Levels of Integrated Care. Center of Excellence for Integrated Health Solutions. Published 2020. Accessed December 4, 2020. https://www.thenationalcouncil.org/wp-content/uploads/2020/01/CIHS_Framework_Final_charts.pdf?daf=375ateTbd56

24 Collins C, Hewson DL, Munger R, Wade T. Evolving Models of Behavioral Health Integration in Primary Care. *Millbank Memorial Fund*. Published online May 25, 2010. https://www.milbank.org/wp-content/files/documents/10430EvolvingCare/EvolvingCare.pdf

25 Centers for Medicare and Medicaid Services. Chronic Conditions Data Warehouse. Published online 2020. Accessed December 1, 2020. https://www2.ccwdata.org/web/guest/home/

26 Albertson EM, Chuang E, O'Masta B, Miake-Lye I, Haley LA, Pourat N. Systematic Review of Care Coordination Interventions Linking Health and Social Services for High-Utilizing Patient Populations. *Popul Health Manag*. 2022;25(1):73-85. doi:10.1089/pop.2021.0057

27 Pathways Community HUB Institute, Community Care Coordination Learning Network. *Connecting Those at Risk to Care: The Quick Start Guide to Developing Community Care Coordination Pathways*. Agency for Healthcare Research and Quality; 2016.

28 Redding S, Conrey E, Porter K, Paulson J, Hughes K, Redding M. Pathways Community Care Coordination in Low Birth Weight Prevention. *Matern Child Health J*. 2015;19(3):643-650. doi:10.1007/s10995-014-1554-4

29 Larwin KH, Budnik A, Horne SE. Ohio community pathway HUB: The cost benefit of supporting minority mothers. *Journal of Contemporary Research in Social Sciences*. 2023;5(2):27-37.

30 Agency for Healthcare Research and Quality. Pathways Community HUB Manual: A Guide to Identify and Address Risk Factors, Reduce Costs, and Improve Outcomes. *15(16)-0070-EF*. Published online January 2016.

31 Washington State Health Care Authority. HCA's Position on ACH Implementation of the Pathways Community-Based Care Coordination Model. Published online October 2019.

32 Washington State Health Care Authority: Joint Select Committee on Health Care Oversight. Update on Washington's ACHs. Presented at: July 23, 2019. Accessed April 16, 2023. https://www.hca.wa.gov/assets/update-on-washngton-ach.pdf

33 Verhaegh KJ, MacNeil-Vroomen JL, Eslami S, Geerlings SE, de Rooij SE, Buurman BM. Transitional care interventions prevent hospital readmissions for adults with chronic illnesses. *Health Aff (Millwood)*. 2014;33(9):1531-1539. doi:10.1377/hlthaff.2014.0160

34 Ruiz D, McNealy K, Corey K, et al. Evaluation of the Community-Based Care Transitions Program. *Econometrica, Inc*. 2017;Final Evaluation Report No. 2246-000/HHSM-500-T0006.

35 Binswanger IA, Stern MF, Deyo RA, et al. Release from prison--a high risk of death for former inmates. *N Engl J Med*. 2007;356(2):157-165. doi:10.1056/NEJMsa064115

36 Wang EA, Lin H ju, Aminawung JA, et al. Propensity-matched study of enhanced primary care on contact with the criminal justice system among individuals recently released from prison to New Haven. *BMJ Open*. 2019;9(5):e028097. doi:10.1136/bmjopen-2018-028097

37 Shavit S, Aminawung JA, Birnbaum N, et al. Transitions Clinic Network: Challenges And Lessons In Primary Care For People Released From Prison. *Health Aff (Millwood)*. 2017;36(6):1006-1015. doi:10.1377/hlthaff.2017.0089

38 Blandford AM, Osher F. Guidelines for the Successful Transition of People with Behavioral Health Disorders from Jail and Prison. *SAMHSA's GAINS Center for Behavioral Health and Justice Transformation*. Published online November 2013. https://csgjusticecenter.org/wp-content/uploads/2020/02/Guidelines-for-Successful-Transition.pdf

39 Osher F, Steadman H, Barr H. A Best Practice Approach to Community Reentry From Jails for Inmates with Co-Occurring Disorders: The Apic Model. *Crime & Delinquency*. 2003;49(1):18. doi:10.1177/0011128702239237

40 Sowers WE, Rohland B. American Association of Community Psychiatrists' Principles for Managing Transitions in Behavioral Health Services. *PS*. 2004;55(11):1271-1275. doi:10.1176/appi.ps.55.11.1271

41 Morgan SR, Chang AM, Alqatari M, Pines JM. Non-emergency department interventions to reduce ED utilization: a systematic review. *Acad Emerg Med*. 2013;20(10):969-985. doi:10.1111/acem.12219

42 Steadman H, Naples M. Assessing the effectiveness of jail diversion programs for persons with serious mental illness and co-occurring substance use disorders. *Behavioral sciences & the law*. 2005;23(2). doi:10.1002/bsl.640

43 Sirotich F. The criminal justice outcomes of jail diversion programs for persons with mental illness: a review of the evidence. *J Am Acad Psychiatry Law*. 2009;37(4):461-472.

44 LEAD Fact Sheet. Published online n.d. Accessed March 4, 2024. https://56ec6537-6189-4c37-a275-02c6ee23efe0.filesusr.com/ugd/6f124f_6c348a0648d045508966dceb187e9fb8.pdf?index=true

45 National Center for Health Statistics. *Multiple Cause of Death 1999-2021*. Centers for Disease Control and Prevention; 2023. Accessed March 4, 2024. https://wonder.cdc.gov/

46 *Consolidated Appropriations Act, 2023.*; 2022. https://www.congress.gov/117/bills/hr2617/BILLS-117hr2617enr.pdf

47 National Academies of Sciences, Engineering, and Medicine Division; Board on Health Sciences Policy; Committee on Medication-Assisted Treatment for Opioid Use Disorder. *Medications for Opioid Use Disorder Save Lives Chapter 5: Barriers to Broader Use of Medications to Treat Opioid Use Disorder*. (Mancher M, Leshner AI, eds.). National Academies Press (US); 2019. Accessed April 15, 2024. http://www.ncbi.nlm.nih.gov/books/NBK538936/

48 Washington State Agency Medical Directors' Group. Interagency Guideline on Prescribing Opioids for Pain. 2015;(3rd Edition). https://www.agencymeddirectors.wa.gov/files/2015amdgopioidguideline.pdf

49 Dowell D, Haegerich T, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain. *MMWR Recomm Rep*. 2016;65(RR-1):1-49. doi:10.15585/mmwr.rr6501e1er

50 Washington State Department of Health. Substance Abuse During Pregnancy: Guidelines for Screening. Published online 2012. https://nationaldec.org/wp-content/uploads/155-Article.pdf

51 Washington State Department of Health. *2016 Washington State Interagency Opioid Working Plan*.; 2016. https://stopoverdose.org/stateresponseplan.pdf

52 Washington State Prevention Enhancement Policy Consortium. *State of Washington Substance Use Disorder Prevention and Mental Health Promotion: Five Year Strategic Plan 2017-2022*.; 2019. https://theathenaforum.org/sites/default/files/public/82-0123_sud_5_year_plan_web.pdf

53 National Vital Statistics System. Births: Final Data for 2021. 2023;72(1). https://www.cdc.gov/nchs/data/nvsr/nvsr72/nvsr72-01.pdf

54 KFF State Health Facts. Health Insurance Coverage of Children 0-18 - Timeframe: 2021. KFF. Published 2021. Accessed February 29, 2024. https://www.kff.org/other/state-indicator/children-0-18/

55 Centers for Disease Control and Prevention. Planning for Pregnancy. Published February 15, 2023. Accessed March 4, 2024. https://www.cdc.gov/preconception/planning.html

56 Centers for Disease Control and Prevention. Oral and Dental Health. Published online May 2017. https://www.cdc.gov/nchs/fastats/dental.htm

57 National Institute of Dental and Craniofacial Research. Dental Caries (Tooth Decay) in Adults (Ages 20 to 64 Years). Published July 2018. Accessed March 4, 2024. https://www.nidcr.nih.gov/research/data-statistics/dental-caries/adults

58 Vasireddy D, Sathiyakumar T, Mondal S, Sur S. Socioeconomic Factors Associated With the Risk and Prevalence of Dental Caries and Dental Treatment Trends in Children: A Cross-Sectional Analysis of National Survey of Children's Health (NSCH) Data, 2016-2019. *Cureus*. 2021;13(11). doi:10.7759/cureus.19184

59 Kane SF. The effects of oral health on systemic health. *General Dentistry*. 2017;(November/December). https://www.agd.org/docs/default-source/self-instruction-(gendent)/gendent_nd17_aafp_kane.pdf

60 U.S. Government Accountability Office. *Efforts Under Way to Improve Children's Access to Dental Services, but Sustained Attention Needed to Address Ongoing Concerns*.; 2010. Accessed March 4, 2024. https://www.gao.gov/assets/gao-11-96.pdf

61 American Dental Association Health Policy Institute. Dentist Profile Snapshot by State 2016. Published online January 2018. https://www.ada.org/resources/research/health-policy-institute?source=VanityURL

62 U.S. Government Accountability Office. *States Made Multiple Program Changes, and Beneficiaries Generally Reported Access Comparable to Private Insurance*.; 2012. Accessed March 4, 2024. https://www.gao.gov/assets/gao-13-55.pdf

63 Warder CJ, Edelstein BL. Evaluating levels of dentist participation in Medicaid: A complicated endeavor. *J Am Dent Assoc*. 2017;148(1):26-32.e2. doi:10.1016/j.adaj.2016.09.010

64 Jeffrey Hummel M, Kathryn E. Phillips MPH, Bre Holt M (Qualis H, Catherine Hayes HRA. Oral Health: An Essential Component of Primary Care.

65 Alaska Dental Therapy Educational Program. Alaska Native Tribal Health Consortium. Published January 5, 2016. Accessed March 27, 2024. https://www.anthc.org/alaska-dental-therapy-education-programs/

66 Washington State Legislature. *Dental Health Aide Therapists*. Vol Chapter 70.350.; 2023. Accessed March 27, 2024. https://app.leg.wa.gov/RCW/default.aspx?cite=70.350&full=true

67 Radnai M, Gorzó I, Urbán E, Eller J, Novák T, Pál A. Possible association between mother's periodontal status and preterm delivery. *J Clin Periodontol*. 2006;33(11):791-796. doi:10.1111/j.1600-051X.2006.00986.x

68 Xiong X, Buekens P, Fraser WD, Beck J, Offenbacher S. Periodontal disease and adverse pregnancy outcomes: a systematic review. *BJOG*. 2006;113(2):135-143. doi:10.1111/j.1471-0528.2005.00827.x

69 Albert DA, Begg MD, Andrews HF, et al. An Examination of Periodontal Treatment, Dental Care, and Pregnancy Outcomes in an Insured Population in the United States. *Am J Public Health*. 2011;101(1):151-156. doi:10.2105/AJPH.2009.185884

70 Raghupathi W, Raghupathi V. An Empirical Study of Chronic Diseases in the United States: A Visual Analytics Approach to Public Health. *Int J Environ Res Public Health*. 2018;15(3):431. doi:10.3390/ijerph15030431

71 Buttorff C, Ruder T, Bauman M. *Multiple Chronic Conditions in the United States*. RAND Corporation; 2017. doi:10.7249/TL221

72 McDermott KW, Jiang HJ. *Characteristics and Costs of Potentially Preventable Inpatient Stays, 2017*. Agency for Healthcare Research and Quality (US); 2020. Accessed December 2, 2020. https://www.ncbi.nlm.nih.gov/books/NBK559945/

73 Hibbard JH, Greene J, Sacks RM, Overton V, Parrotta C. Improving Population Health Management Strategies: Identifying Patients Who Are More Likely to Be Users of Avoidable Costly Care and Those More Likely to Develop a New Chronic Disease. *Health Serv Res*. 2017;52(4):1297-1309. doi:10.1111/1475-6773.12545

74 Khatri R, Endalamaw A, Erku D, et al. Continuity and care coordination of primary health care: a scoping review. *BMC Health Services Research*. 2023;23(1):750. doi:10.1186/s12913-023-09718-8

75 Andrieni JD. Population health management: The lynchpin of emerging healthcare delivery models. In: *America's Healthcare Transformation: Strategies and Innovations*. Rutgers University Press; 2016:113-127. Accessed February 27, 2024. https://scholars.houstonmethodist.org/en/publications/population-health-management-the-lynchpin-of-emerging-healthcare-

76 Reynolds R, Dennis S, Hasan I, et al. A systematic review of chronic disease management interventions in primary care. *BMC Family Practice*. 2018;19(1):11. doi:10.1186/s12875-017-0692-3

77 Wagner E. Chronic disease management: what will it take to improve care for chronic illness? *Eff Clin Pract*. 1998;1(1):2-4.

78 Centers for Disease Control and Prevention. Chronic Disease Self Management Program (CDSMP). Published August 25, 2023. Accessed April 9, 2024. https://www.cdc.gov/arthritis/interventions/programs/cdsmp.htm

79 Centers for Disease Control and Prevention. National Diabetes Prevention Program. CDC - Diabetes. Published August 1, 2023. Accessed April 9, 2024. https://www.cdc.gov/diabetes/prevention/index.html

80 Rural Health Information Hub. Community Paramedicine Overview. Published January 27, 2023. Accessed April 9, 2024. https://www.ruralhealthinfo.org/topics/community-paramedicine

81 Kizer K, Shore K, Moulin A. *Community Paramedicine: A Promising Model for Integrating Emergency and Primary Care*. UC Davis Institute for Population Health Improvement; 2013. https://emsa.ca.gov/wp-content/uploads/sites/71/2017/07/CPReport.pdf

82 State of Washington: Office of Financial Management. State Population Forecast: 2020–2050. Published November 8, 2023. https://ofm.wa.gov/sites/default/files/public/dataresearch/pop/stfc/stfc_presentation.pdf

83 Goode KT, Haley WE, Roth DL, Ford GR. Predicting longitudinal changes in caregiver physical and mental health: a stress process model. *Health Psychol*. 1998;17(2):190-198. doi:10.1037//0278-6133.17.2.190

84 O'Brien R. Selective Issues in Effective Medicaid Estate Recovery Statutes. *Catholic University Law Review*. 2016;65(1):27-78.

85 Kapp MB. Medicaid planning, estate recovery, and alternatives for long-term care financing: identifying the ethical issues. *Care Manag J*. 2006;7(2):73-78. doi:10.1891/cmaj.7.2.73

86 Murray C, Eckstein M, Lipson D, Wysocki A. *Medicaid Long Term Services and Supports Annual Expenditures Report: Federal Fiscal Year 2020*.; 2023. https://www.medicaid.gov/sites/default/files/2023-10/ltssexpenditures2020.pdf

87 Feinberg LF, Newman SL. A Study of 10 States Since Passage of the National Family Caregiver Support Program: Policies, Perceptions, and Program Development. *The Gerontologist*. 2004;44(6):760-769. doi:10.1093/geront/44.6.760

88 Jinkins L. First in the Nation: Washington State's Long-Term Care Trust Act. *The Milbank Quarterly*. 2019;98(1). doi:10.1111/1468-0009.12439

89 Center for Health Systems Effectiveness. *Medicaid Transformation Project Evaluation: Interim Report*.; 2020. https://www.hca.wa.gov/assets/program/mtp-interim-report.pdf

90 NWRC. Increasing Washington's in-home Personal Needs Allowance promotes choices in long-term care. Published 2022. Accessed January 24, 2024. https://www.nwrcwa.org/increasing-washingtons-in-home-personal-needs-allowance-promotes-choices-in-long-term-care#:~:text=Recently%20the%20Washington%20State%20Legislature%20passed%20a%20bill,of%20choice%20for%20long-term%20care%20-%20their%20home%21

91 Johnson R, Lindner S. *The Adequacy of Income Allowances for Medicaid Home and Community-Based Services*. Urban Institute; 2017. Accessed January 24, 2024. https://www.urban.org/research/publication/adequacy-income-allowances-medicaid-home-and-community-based-services

92 American Council on Aging. Washington Medicaid / Apple Health Tailored Supports for Older Adults (TSOA) Program. Published 2024. https://www.medicaidplanningassistance.org/washington-tailored-supports-older-adults/#:~:text=Presumptive%20eligibility%20only%20approves%20program,formally%20apply%20for%20the%20program.

93 American Council on Aging. *Washington State / Apple Health Medicaid Alternative Care (MAC) Program*.; 2024. https://www.medicaidplanningassistance.org/washington-medicaid-alternative-care/#:~:text=Presumptive%20eligibility%20approves%20program%20benefits,formally%20apply%20for%20the%20program.

94 Washington State Health Care Authority. Tailored supports for older adults (TSOA). Published 2019. https://www.hca.wa.gov/free-or-low-cost-health-care/i-help-others-apply-and-access-apple-health/tailored-supports-older-adults-tsoa

95 D'Adamo H, Yoshikawa T, Ouslander JG. Coronavirus Disease 2019 in Geriatrics and Long-Term Care: The ABCDs of COVID-19. *Journal of the American Geriatrics Society*. 2020;68(5):912-917. doi:10.1111/jgs.16445

96 Mann C. *Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality*. Centers for Medicare and Medicaid Services; 2013. Accessed December 4, 2020. https://www.medicaid.gov/sites/default/files/federal-policy-guidance/downloads/CIB-07-24-2013.pdf

97 Shah MF, Black C, Felver B. *The Housing Status of Individuals Discharged from Behavioral Health Treatment Facilities*. Washington State Department of Social and Health Services; 2012. Accessed December 4, 2020. http://doi.apa.org/get-pe-doi.cfm?doi=10.1037/e574372013-001

98 Cassidy A. Medicaid and Permanent Supportive Housing | Health Affairs Brief. Health Affairs. Published October 14, 2016. Accessed April 11, 2024. https://www.healthaffairs.org/do/10.1377/hpb20161014.734003/full/

99 Hanson D, Gillespie S. Improving Health Care through Housing First. Published 2021. https://www.urban.org/research/publication/improving-health-care-through-housing-first

100 Hanson D, Gillespie S. 'Housing First' Increased Psychiatric Care Office Visits And Prescriptions While Reducing Emergency Visits. *Health Affairs*. 2024;43(2):209-217. doi:10.1377/hlthaff.2023.01041

101 What is IPS? The IPS Employment Center. Published 2020. Accessed December 4, 2020. https://ipsworks.org/index.php/what-is-ips/

102 Washington State Health Care Authority. Healthier Washington Medicaid Transformation Foundational Community Supports. Published online December 2017. https://www.hca.wa.gov/assets/program/medicaid-demonstration-i3-factsheet.pdf

103 Foundational Community Supports (FCS) Reimbursement Rates (Effective July 1, 2020 - 12/31/2021). Accessed December 4, 2020. https://www.hca.wa.gov/assets/fcs-reimbursement-rate.pdf

104 Danielson T, Mancuso D, Felver B. *The Foundational Community Supports Program: Preliminary Evaluation Findings*. Washington State Department of Social and Health Services; 2020. Accessed March 26, 2020. https://www.dshs.wa.gov/sites/default/files/rda/reports/research-11-251.pdf

105 Lindner S, McConnell KJ. Difference-In-Differences and Matching on Outcomes: a Tale of Two Unobservables. *Health Services and Outcomes Research Methodology*. 2019;19(2-3):127-144. doi:10.1007/s10742-018-0189-0

106 Daw JR, Hatfield LA. Matching and Regression To the Mean in Difference-In-Differences Analysis. *Health Services Research*. 2018;53(6):4138-4156. doi:10.1111/1475-6773.12993

107 Mee-Lee D. *The ASAM Criteria: Treatment Criteria for Addictive Substance-Related, and Co-Ccurring Conditions*.; 2013.

108 Medicaid and CHIP Payment and Access Commission. Payment for services in institutions for mental diseases (IMDs). MACPAC. Published 2020. Accessed December 4, 2020. https://www.macpac.gov/subtopic/payment-for-services-in-institutions-for-mental-diseases-imds/

109 Edwards JF. The Outdated Institution for Mental Diseases Exclusion: A Call to Re-examine and Repeal the Medicaid IMD Exclusion. Published online 1997.

110 Glickman A, Sisti DA. Medicaid's Institutions for Mental Diseases (IMD) Exclusion Rule: a Policy Debate-Argument To Repeal the IMD Rule. *Psychiatric Services*. 2018;70(1):7-10.

111 DeLillo M. Institution for Mental Disease (IMD) as an "in lieu of" Service. Published online 2016.

112 Wachino V. New Service Delivery Opportunities for Individuals with a Substance Use Disorder. Published online 2015.

113 Section 1115 waivers for substance use disorder treatment. https://www.macpac.gov/subtopic/section-1115-waivers-for-substance-use-disorder-treatment/

114 *Federal Register, Vol 58, Number 96*.; 1993. https://www.samhsa.gov/sites/default/files/federal-register-notice-58-96-definitions.pdf

115 Substance Abuse and Mental Health Services Administration. *Serious Emotional Disturbance (SED) Expert Panel Meetings*.; 2014. Accessed November 21, 2021. https://www.samhsa.gov/data/sites/default/files/SED%20Expert%20Panels%20Summary%20Report.pdf

116 Agency for Healthcare Research and Quality. Clinical Classifications Software Refined (CCSR) for ICD-10-CM Diagnoses. Accessed July 23, 2020. https://www.hcup-us.ahrq.gov/toolssoftware/ccsr/ccs_refined.jsp

Evaluation Measures

This appendix provides detailed information regarding the measures presented in this report. Measures are listed in alphabetical order below.

Several measures are produced multiple times throughout this report for different populations of interest or for different measurement periods. The measurement period and the approach used to construct study populations for each analysis are described in detail in the relevant chapters of this report. See Appendix B of this report for a detailed description of quantitative methods.

1. 30-Day Follow-Up After ED Visit for Alcohol/Drug Use

This measure appears in Chapter 17 of this report.

Description: Percentage of ED visits among enrollees age 13 and older, with a principal diagnosis of AOD abuse or dependence, who had a follow up visit for AOD within 30 days of the ED visit

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

2. 30-Day Follow-Up After ED Visit for Mental Illness

This measure appears in Chapter 1, 6, 7, 8, 9, 17, and 18 of this report.

Description: Percentage of ED visits for enrollees age 6 and older, with a principal diagnosis of mental illness or intentional self-harm, who had a follow up visit for mental illness within 30 days of the ED visit

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

3. 30-Day Follow-Up After Hospitalization for Mental Illness

This measure appears in Chapter 1, 6, 7, 8, 17, and 18 of this report.

Description: Percentage of discharges after hospitalization for mental illness where the patient received a follow-up outpatient service within 30 days

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

4. 30-Day Hospital Readmission for a Psychiatric Condition

This measure appears in Chapter 1, 6, 7, 8, 9, 10, 11, and 13 of this report.

Description: Percentage of hospital psychiatric stays among enrollees age 18 and older with readmission for a psychiatric diagnosis within 30 days.

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

5. 30-Day Hospital Readmission for SUD (per 100 index stays)

This measure appears in Chapter 17 of this report.

Description: Percentage of acute inpatient stays among enrollees age 18 and older with SUD that were followed by an unplanned acute readmission for any diagnosis within 30 days (reported per 100 index stays)

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

6. 7-Day Follow-Up After ED Visit for Alcohol/Drug Use

This measure appears in Chapter 6, 7, 8, 9, and 18 of this report.

Description: Percentage of ED visits among enrollees age 13 and older, with a principal diagnosis of AOD abuse or dependence, who had a follow up visit for AOD within 7 days of the ED visit

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

7. 7-Day Follow-Up After ED Visit for Mental Illness

This measure appears in Chapter 6, 7, 8, 9, of this report.

Description: Percentage of ED visits for enrollees age 6 and older, with a principal diagnosis of mental illness or intentional self-harm, who had a follow up visit for mental illness within 7 days of the ED visit

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

8. 7-Day Follow-Up After Hospitalization for Mental Illness

This measure appears in Chapter 6, 7, 8, and 18 of this report.

Description: Percentage of discharges after hospitalization for mental illness where the patient received a follow-up outpatient service within 7 days

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

9. Acute Hospital Use among Adults (per 1,000 members)

This measure appears in Chapter 1, 6, 7, 8, 9, 10, 11, 12, 13, 15, and 16 of this report.

Description: Number of acute inpatient discharges among enrollees age 18 or older (reported per 1,000 enrollees)

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

10. Adults' Access to Primary Care

This measure appears in Chapter 1, 6, 7, 9, and 16 of this report.

Description: Percentage of enrollees age 20 and older who had at least one ambulatory or preventive care visit

Source: ProviderOne Medicaid claims/encounter data

Steward: HEHDIS(R) Technical Specifications for Health Plans, NCQA

11. Alcohol or Other Drug Treatment: Engagement

This measure appears in Chapter 1, 6, 7, 16, and 17 of this report.

Description: Percentage of enrollees age 13 and older with a new episode of AOD abuse or dependence who initiated treatment and had two or more additional services related to AOD or MOUD within 34 days of the initiation visit

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

12. Alcohol or Other Drug Treatment: Initiation

This measure appears in Chapter 1, 6, 7, 16, and 17 of this report.

Description: Percentage of enrollees age 13 and older with a new episode of AOD abuse or dependence who initiated treatment within 14 days of diagnosis

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

13. Antidepressant Medication for Adults (12 weeks)

This measure appears in Chapter 1, 6, 7, and 16 of this report.

Description: Percentage of enrollees age 18 and older with depression who remained on antidepressant medication for 12 weeks

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

14. Antidepressant Medication for Adults (6 months)

This measure appears in Chapter 1, 6, 7, and 16 of this report.

Description: Percentage of enrollees age 18 and older with depression who remained on antidepressant medication for 6 months

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

15. Antipsychotic Medication for People with Schizophrenia

This measure appears in Chapter 1, 6, 7, and 16 of this report.

Description: Percentage of enrollees age 19 and older with schizophrenia who received and remained on an antipsychotic medication

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

16. Any SUD Treatment (per 1,000 member months)

This measure appears in Chapter 17 of this report.

Description: Number of member-months when any SUD treatment service was received (reported per 1,000 member months)

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

17. Arrest Rate (Age 18 to 64)

This measure appears in Chapter 1, 6, 7, 9, and 16 of this report.

Description: Percentage of enrollees age 18 and older who were arrested at least once in the year, as reported by the Washington State Patrol

Source: ProviderOne Medicaid enrollment data (for identification of Medicaid eligibility); Washington State Identification System (WASIS) arrest database

Steward: RDA

18. Average Length of Stay in IMDs (days)

This measure appears in Chapter 17 of this report.

Description: Average length of stay for enrollees discharged from an IMD residential treatment facility for SUD

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

19. Behavioral Health Care Spending Per Member, Per Month

This measure appears in Chapter 6, 7, 8, 9, 10, 11, 12, and 13 of this report.

Description: Average monthly expenditures for behavioral health care

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

20. Breast Cancer Screening

This measure appears in Chapter 1 and 6 of this report.

Description: Percentage of women age 50 and older who had a mammogram to screen for breast cancer

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

21. Cervical Cancer Screening

This measure appears in Chapter 1 and 6 of this report.

Description: Percentage of women age 21 and older who were screened for cervical cancer

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

22. Chlamydia Screening for Women

This measure appears in Chapter 1, 6, and 11 of this report.

Description: Percentage of women age 16 to 24 identified as sexually active who received at least one chlamydia test during the measurement year

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

23. Colorectal Cancer Screening

This measure appears in Chapter 1 and 6 of this report.

Description: Percentage of enrollees age 50 and older who were screened for colorectal cancer

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

24. Continuity of Pharmacotherapy for Opioid Use Disorder

This measure appears in Chapter 17 of this report.

Description: Percentage of enrollees age 18 and older with pharmacotherapy for OUD who have at least 180 days of continuous treatment

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

25. Controller Medication for Asthma

This measure appears in Chapter 1, 6, 7, and 17 of this report.

Description: Percentage of enrollees age 5 and older with persistent asthma who had a ratio of controller medication to total asthma medications of 0.5 or greater

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

26. Diabetes Screening for People with Schizophrenia/Bipolar Disorder

This measure appears in Chapter 1, 6, and 7 of this report.

Description: Percentage of enrollees age 18 and older with schizophrenia or bipolar disorder who received antipsychotic medication and had a diabetes test

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

27. Early Intervention (per 100,000 member months)

This measure appears in Chapter 17 of this report.

Description: The number of member-months when screening for SUD using the Screening, Brief Intervention, and Referral to Treatment (SBIRT) occurred (reported per 100,000 member months)

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

28. Effective Contraception

This measure appears in Chapter 1 and 11 of this report.

Description: Percentage of women age 15 to 44 who received a most-effective or moderately effective method of contraception

Source: ProviderOne Medicaid claims/encounter data

Steward: U.S. Department of Health and Human Services

29. Effective Contraception within 90 Days of Delivery

This measure appears in Chapter 1 and 11 of this report.

Description: Percentage of women age 15 to 44 with a live birth who received a most-effective or moderately effective method of contraception within 90 days of delivery

Source: ProviderOne Medicaid claims/encounter data

Steward: U.S. Department of Health and Human Services

30. Emergency Department Spending Per Member, Per Month

This measure appears in Chapter 1, 6, 7, 8, 9, 10, 11, 12, 13, and 18 of this report.

Description: Average monthly expenditures for emergency department visits

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

31. Emergency Department Visit Rate (per 1,000 member months)

This measure appears in Chapter 1 and 16 of this report.

Description: Number of ED visits, including visits related to mental health and SUD (reported per 1,000 member months)

Source: ProviderOne Medicaid claims/encounter data

Steward: Washington State Department of Social and Health Services

32. Emergency Department Visit Rate for SUD (per 1,000 member months)

This measure appears in Chapter 17 of this report.

Description: Number of ED visits related to SUD (reported per 1,000 member months)

Source: ProviderOne Medicaid claims/encounter data

Steward: Washington State Department of Social and Health Services

33. Employment (Age 18 to 64)

This measure appears in Chapter 1, 6, and 7 of this report.

Description: Percentage of enrollees age 18 and older with any earnings in the year, as reported by the Washington State Employment Security Department

Source: ProviderOne Medicaid enrollment data (for identification of Medicaid eligibility); Washington State Identification System (WASIS) arrest database

Steward: RDA (modified)

34. Eye Exam for People with Diabetes

This measure appears in Chapter 1, 6, 7, 13, and 16 of this report.

Description: Percentage of enrollees age 18 and older with diabetes who had an eye exam by an eye care professional

Source: ProviderOne Medicaid enrollment data (for identification of Medicaid eligibility); Washington State Identification System (WASIS) arrest database

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

35. Follow-Up Care for Adults Taking a New Antipsychotic Medication

This measure appears in Chapter 18 of this report.

Description: Percentage of new antipsychotic prescriptions for enrollees age 18 and older who have completed a follow-up visit with a provider with prescribing authority within four weeks (28 days) of prescription of an antipsychotic medication

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

36. Foundational Community Supports Beneficiaries with Inpatient or Residential SUD Service(s)

This measure appears in Chapter 17 of this report.

Description: Percentage of enrollees age 12 and older with a SUD treatment need identified within the past two years who received at least one qualifying SUD treatment during the measurement year and participated in the FCS program

Source: ProviderOne Medicaid claims/encounter data

Steward: RDA

37. Hemoglobin A1c Testing for People with Diabetes

This measure appears in Chapter 1, 6, 7, and 16 of this report.

Description: Percentage of enrollees age 18 and older with diabetes who had a hemoglobin A1c test

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

38. Homelessness

This measure appears in Chapter 1, 6, 7, 8, and 9 of this report.

Description: Percentage of enrollees who were homeless at least one month in the year, as reported by the Washington State Department of Social and Health Services, Economic Services Administration

Source: ProviderOne Medicaid enrollment data (for identification of Medicaid eligibility);

DSHS Economic Services Administration's Automated Client Eligibility System (ACES) living

arrangement data

Steward: RDA

39. Hospital Readmission Within 30 Days

This measure appears in Chapter 1, 6, 7, 8, 9, 10, 11, and 13 of this report.

Description: Percentage of hospital stays among enrollees age 18 and older with unplanned readmission to the hospital within 30 days

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

40. Hospitalizations (per 1,000 member months)

This measure appears in Chapter 15 of this report.

Description: Number of enrollees with an acute hospital discharge (reported per 1,000 member months)

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

41. IMD SMI Spending Per Member, Per Month

This measure appears in Chapter 18 of this report.

Description: Average monthly mental health related expenditures in IMDs among members with SMI or SED

Source: ProviderOne Medicaid claims/encounter data

42. IMD SUD Spending Per Member, Per Month

This measure appears in Chapter 17 of this report.

Description: Average monthly SUD related expenditures in IMDs among members with SUD

Source: ProviderOne Medicaid claims/encounter data

43. Immunizations for Children

This measure appears in Chapter 1 and 11 of this report.

Description: Percentage of children (age 2) who received all vaccinations in the combination 10-vaccination set by their second birthday

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

44. Initiation of HCBS Use

This measure appears in Chapter 15 of this report.

Description: The number of enrollees who received Medicaid Alternative Care (MAC) or Tailored Supports for Older Adults (TSOA) who had at least one approved claim for qualifying home and community-based long-term services and supports (not including Nursing Facility services) but did not have an approved claim for qualifying home and community-based long-term services and supports (not including Nursing Facility services) in the preceding calendar quarter.

Source: ProviderOne claims/encounter data

Steward: CHSE

45. Initiation of In-Home Service Use

This measure appears in Chapter 15 of this report.

Description: The number of enrollees who received Medicaid Alternative Care (MAC) or Tailored Supports for Older Adults (TSOA) who received at least one qualifying in-home service but did not receive at least one qualifying in-home service in the preceding calendar quarter.

Source: ProviderOne claims/encounter data

Steward: CHSE

46. Inpatient Spending Per Member, Per Month

This measure appears in Chapter 1, 17, and 18 of this report.

Description: Average monthly expenditures for inpatient facility and professional services

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

47. Inpatient Stays for SUD (per 1,000 members)

This measure appears in Chapter 17 of this report.

Description: Number of enrollees who had an inpatient admission for SUD during the measurement year (reported per 1,000 enrollees)

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

48. Kidney Health Evaluation with Patients with Diabetes

This measure appears in Chapter 1, 6, 7, and 13 of this report.

Description: Percentage of enrollees age 18 and older with diabetes (type 1 and type 2) who received an annual kidney health evaluation

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

49. Long-Acting Reversible Contraceptives within 90 Days of Delivery

This measure appears in Chapter 1 and 11 of this report.

Description: Percentage of women age 15 to 44 who received a long-acting reversible method of contraception, defined as contraceptive implants, intrauterine devices, or intrauterine systems within 90 days of delivery

Source: ProviderOne Medicaid claims/encounter data

Steward: U.S. Department of Health and Human Services

50. LTSS Spending Per Member, Per Month

This measure appears in Chapter 1, 17, and 18 of this report.

Description: Average monthly expenditures for long-term services and supports

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

51. Medication Continuation Following Inpatient Psychiatric Discharge

This measure appears in Chapter 18 of this report.

Description: Percent of enrollees who were admitted to an inpatient psychiatric facility for major depressive disorder, schizophrenia, or bipolar disorder who filled a prescription for evidence-based medication within 2 days prior to discharge and 30 days post-discharge

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

52. Medication for Addiction Treatment (per 1,000 member months)

This measure appears in Chapter 17 of this report.

Description: The number of member-months when MOUD treatment for SUD was received (reported per 1,000 member months)

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

53. Mental Health Related Home and Community-Based Services

This measure appears in Chapter 18 of this report.

Description: Percentage of member-months during which enrollees with a mental health diagnosis received home and community-based services were received

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

54. Mental Health Related LTSS

This measure appears in Chapter 18 of this report.

Description: Percentage of member-months during which enrollees with a mental health diagnosis received long-term services and supports

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

55. Mental Health Related Outpatient, Rehabilitation, and Targeted Case Management Services

This measure appears in Chapter 18 of this report.

Description: Percentage of member-months during which enrollees received mental health related outpatient, rehabilitation, or targeted case management services

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

56. Mental Health Services Utilization - Emergency Department

This measure appears in Chapter 18 of this report.

Description: Percentage of member-months during which enrollees with SMI or SED used emergency department services for mental health

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

57. Mental Health Treatment Penetration

This measure appears in Chapter 1, 6, 7, 8, 9, 11, and 16 of this report.

Description: Percentage of enrollees age 6 and older with a mental health service need who received at least one mental health service

Source: ProviderOne Medicaid claims/encounter data

Steward: RDA

58. Nephropathy Screening for People with Diabetes

This measure appears in Chapter 16 of this report.

Description: The percentage of Medicaid beneficiaries, 18–75 years of age, with diabetes (type 1 and type 2) who had a nephropathy screening test or evidence of nephropathy during the measurement year

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

59. Non-Behavioral Health Care Spending Per Member, Per Month

This measure appears in Chapter 6, 7, 8, 9, 10, 11, 12, and 13 of this report.

Description: Average monthly expenditures, excluding expenditures related to mental health or SUD

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

60. Non-IMD MH Spending Per Member, Per Month

This measure appears in Chapter 18 of this report.

Description: Average monthly mental health related expenditures among members with SMI or SED, excluding IMD expenditures

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

61. Non-IMD SUD Spending Per Member, Per Month

This measure appears in Chapter 17 of this report.

Description: Average monthly SUD related expenditures among members with SUD, excluding IMD expenditures

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

62. Non-MH Spending Per Member, Per Month

This measure appears in Chapter 18 of this report.

Description: Average monthly expenditures among members with SMI or SED, excluding expenditures related to mental health

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

63. Non-SUD Spending Per Member, Per Month

This measure appears in Chapter 18 of this report.

Description: Average monthly expenditures among members with SUD, excluding expenditures related to SUD

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

64. Nursing Facility Entry

This measure appears in Chapter 15 of this report.

Description: Number of enrollees who received Medicaid Alternative Care (MAC) or Tailored Supports for Older Adults (TSOA) who also had at least one approved claim for Nursing Facility services but did not have at least one approved claim for Nursing Facility services in the preceding calendar quarter.

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

65. Opioid Use Disorder Treatment for People with Treatment Need

This measure appears in Chapter 1, 10, 16, and 17 of this report.

Description: Percentage of enrollees age 12 and older with an OUD treatment need identified within the past two years, who received at least one qualifying OUD treatment

Source: ProviderOne Medicaid claims/encounter data

Steward: RDA

66. Other Outpatient Spending Per Member, Per Month

This measure appears in Chapter 1, 17, and 18. of this report.

Description: Average monthly expenditures for outpatient care, excluding primary care and emergency department services

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

67. Outpatient Services (per 1,000 member months)

This measure appears in Chapter 17 of this report.

Description: Number of member-months when any outpatient service for SUD was received (reported per 1,000 member months)

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

68. People with an Opioid Prescription >= 50mg MED

This measure appears in Chapter 1, 10, 16, and 17 of this report.

Description: Percentage of enrollees prescribed chronic opioid therapy with dosage greater than or equal to 50mg morphine-equivalent dose

Source: ProviderOne Medicaid claims/encounter data

Steward: Bree Collaborative

69. People with an Opioid Prescription >= 90mg MED

This measure appears in Chapter 1, 10, 16, and 17 of this report.

Description: Percentage of enrollees prescribed chronic opioid therapy with dosage greater than or equal to 90mg morphine-equivalent dose

Source: ProviderOne Medicaid claims/encounter data

Steward: Bree Collaborative

70. People with an Opioid Prescription who were Prescribed a Sedative

This measure appears in Chapter 1, 10, and 17 of this report.

Description: Percentage of enrollees prescribed a chronic sedative, among beneficiaries prescribed chronic opioids

Source: ProviderOne Medicaid claims/encounter data

Steward: Bree Collaborative

71. People with SMI/SED who Use Both: (1) Mental Health Related Outpatient, Rehabilitation, and Targeted Case Management Services; and (2) LTSS

This measure appears in Chapter 18 of this report.

Description: Percent of members with SMI or SED who used both: (1) mental health related outpatient, rehabilitation, and targeted case management services, and (2) long-term services and supports

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

72. Periodontal Exam for Adults

This measure appears in Chapter 1 and 12 of this report.

Description: Percentage enrollees age 30 and over with a history of periodontitis who received an oral or periodontal evaluation

Source: ProviderOne Medicaid claims/encounter data

Steward: Dental Quality Alliance®

73. Pharmacy Spending Per Member, Per Month

This measure appears in Chapter 1, 17, and 18 of this report.

Description: Average monthly expenditures for prescription drugs

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

74. Preventive or Restorative Dental Services

This measure appears in Chapter 1 and 12 of this report.

Description: Percentage of enrollees who received preventive or restorative dental service

Source: ProviderOne Medicaid claims/encounter data

Steward: Dental Quality Alliance®

75. Primary Care Spending Per Member, Per Month

This measure appears in Chapter 1 of this report.

Description: Average monthly expenditures for primary care services

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

76. Providers Enrolled in Medicaid who Billed for OUD

This measure appears in Chapter 17 of this report.

Description: Number of providers enrolled in Medicaid that billed for MOUD services during the measurement period

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS (modified)

77. Ratio of Home and Community-Based Care Use to Nursing Facility Use

This measure appears in Chapter 1, 6, 7, 8, 9, 10, and 16 of this report.

Description: Months of home and community-based services received by enrollees age 18 and over as a percentage of total months of long-term care received

Source: ProviderOne Medicaid claims/encounter data

Steward: RDA

78. Residential and Inpatient Services (per 1,000 member months)

This measure appears in Chapter 17 of this report.

Description: Number of member-months when any residential or inpatient service for SUD was received (reported per 1,000 member months)

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

79. Statin Medication for Cardiovascular Disease

This measure appears in Chapter 1 and 13 of this report.

Description: Percentage of men age 21 and older and women age 40 and older with atherosclerotic cardiovascular disease who received a high- or moderate-intensity statin medication

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

80. Substance Use Disorder Spending Per Member, Per Month

This measure appears in Chapter 17 of this report.

Description: Average monthly SUD related expenditures

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

81. Substance Use Disorder Treatment for People with Treatment Need

This measure appears in Chapter 1, 6, 7, 8, 9, 11, and 17 of this report.

Description: Percentage of enrollees age 12 and older with a SUD treatment need identified within the past two years, who received at least one qualifying SUD treatment

Source: ProviderOne Medicaid claims/encounter data

Steward: RDA

82. SUD Diagnosis: Annually

This measure appears in Chapter 17 of this report.

Description: Number of enrollees with an SUD diagnosis during the measurement year or the pervious year, who also received a SUD related service

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

83. SUD Diagnosis: Monthly

This measure appears in Chapter 17 of this report.

Description: Number of member-months when any SUD related service was received, among enrollees with a SUD diagnosis during that month, or the previous 11 months

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

84. Timely Prenatal Care

This measure appears in Chapter 1 and 11 of this report.

Description: Percentage of women with live birth deliveries who had a prenatal care visit in the first trimester, on the Medicaid enrollment start date, or within 42 days of enrollment

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

85. Topical Fluoride at a Medical Visit

This measure appears in Chapter 1 and 12 of this report.

Description: Percentage of children age 5 and younger who received topical fluoride from a non-dental medical provider during a medical visit

Source: ProviderOne Medicaid claims/encounter data

Steward: HCA

86. Total Spending Per Member, Per Month

This measure appears in Chapter 1, 6, 7, 9, 10, 11, 12, 13, and 18 of this report.

Description: Average monthly expenditures for all services combined, including prescription drug expenditures

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

87. Total Spending Per Member, Per Month, excluding pharmacy

This measure appears in Chapter 1, 6, 7, 9, 10, 11, 12, and 13 of this report.

Description: Average monthly expenditures for all services combined, excluding prescription drug expenditures

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

88. Transition Into Homelessness

This measure appears in Chapter 16 of this report.

Description: Percentage of enrollees without housing among those housed in the previous calendar quarter.

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

89. Transition Out of Homelessness

This measure appears in Chapter 16 of this report.

Description: Percentage of enrollees with housing among those who were unhoused in the previous calendar quarter.

Source: ProviderOne Medicaid claims/encounter data

Steward: CHSE

90. Treated in an IMD for SUD

This measure appears in Chapter 17 of this report.

Description: Number of enrollees who received residential treatment for a SUD in an IMD

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

91. Use of First-Line Psychosocial Care for Children & Adolescents on Antipsychotics

This measure appears in Chapter 18 of this report.

Description: Percentage of children and adolescents ages 1 to 17 who had a new prescription for an antipsychotic medication and had documentation of psychosocial care as first-line treatment

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

92. Well-Care Visits Ages 3 to 21

This measure appears in Chapter 1, 6, 7, 9, and 11 of this report.

Description: Percentage of enrollees age 3 to 21 who had at least one well care visit

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

93. Well-Child Visits in the First 30 Months

This measure appears in Chapter 1 and 11 of this report.

Description: Percentage of enrollees age 0 to 30 months who had at least one well care visit

Source: ProviderOne Medicaid claims/encounter data

Steward: HEDIS(R) Technical Specifications for Health Plans, NCQA

94. Withdrawal Management (per 1,000 member months)

This measure appears in Chapter 17 of this report.

Description: Number of member-months when any withdrawal management services for SUD were received (reported per 1,000 member months)

Source: ProviderOne Medicaid claims/encounter data

Steward: CMS

Quantitative Methods

In this Appendix, we provide detailed information about the measures presented in this report, the data sources we used to calculate these measures, the Apple Health population and subgroups we analyzed, and the statistical methods for conducting those analyses.

Initiative 1: Statewide Delivery System Reform (Chapter 1)

Metric Selection

We selected 51 metrics from two sets:

Pay for Performance (P4P) metrics: Metrics used by the Washington Health Care Authority (HCA) to award ACHs and their partners for improving outcomes, listed in HCA's *Project Toolkit* (Washington State Health Care Authority 2019b).

Metrics from the state's Evaluation Design: Metrics listed in Appendix 1 of Washington's *Evaluation Design* for evaluating each Domain 2 and 3 HIP and Initiative 3 ("Medicaid Transformation Project Demonstration Evaluation Design" 2019).

Methods for producing measures of health care expenditures. In Washington's Apple Health program, capitation and other alternative payment mechanisms used by MCOs create "encounter" claims, which include information on diagnosis and procedure but record the amount paid as "zero." Estimates of expenditures based purely on amounts designated as "paid" in claims data would undercount services recorded on an encounter basis because the payments are not captured in the data. To include these data in our assessment, we imputed spending as follows. For claims not paid on a diagnosis-related group (DRG) basis, we first categorized claims into a set of care settings and then used the median non-zero "paid" amount from (2017-2022) for each CPT and care setting. For inpatient facility claims paid on a DRG basis, we determined spending as the mean (non-zero) allowed amount for the stay. When allowed amounts were missing, we imputed spending with the average payment based on the DRG code and the year of the inpatient stay.

Data Sources

The metrics we used were calculated by the state of Washington. We received records showing whether each Apple Health enrollee met the criteria for each metric (e.g., whether a person had a primary care visit or a recommended test or screening) in each month from April 2016 through December 2022. We focused our analyses on calendar years 2017 through 2022. In addition, we received Apple Health enrollment records that included information about each person's demographics and Apple Health claims/encounters records that identify diagnoses and services each person received. This information enabled us to identify subgroups of Apple Health enrollees and present performance metrics for Accountable Community of Health (ACH) regions and subgroups as described below.

Medicaid Populations and Subgroups

To calculate P4P metrics, Washington includes outcomes for only those Medicaid (Apple Health) enrollees with comprehensive physical and behavioral health care benefits and excludes members who are dually eligible for

Medicare and Apple Health or have primary insurance other than Apple Health (Washington State Health Care Authority 2019a, 55). We used inclusion flags in the performance metrics data we received to restrict metrics to this population, which we refer to as MTP Apple Health enrollees.

To report metrics for enrollees in each ACH region, we used inclusion flags provided in the data we received to identify MTP Apple Health enrollees who resided in each ACH in each month. We did not include or exclude enrollees in reporting metrics for ACH regions based on the number of months they resided in the regions and qualified for Medicaid. When reporting statewide metrics, we included or excluded enrollees based on the number of months they resided in the state and qualified for Medicaid. The state of Washington includes an enrollee's outcomes in calculating most metrics if the enrollee resided in an ACH region for 11 of 12 months during the measurement year. For some metrics, the state included an enrollee's outcomes in calculating some metrics if the enrollee resided in the region for only 7 of 12 months, allowing a less residentially stable population to count in the metric.

We identified MTP Apple Health enrollees in subgroups using the following methods:

Medicaid enrollment data: We used information from Medicaid claims/encounters records to identify enrollees by race/ethnicity group, age group, sex, rural or urban geography of residence (identified using the University of Washington's Rural-Urban Commuting Area (RUCA) designations, a crosswalk applied at the zip code level), and residence in high-poverty or non-high-poverty areas (defined as zip codes in which the median income was in the bottom quintile of Washington State's income distribution according to the American Community Survey in 2017).

Medicaid claims/encounters data: We used information on diagnoses and services from Medicaid claims/encounters data to identify enrollees with chronic conditions, severe mental illness (SMI), and substance use disorder (SUD).

Chronic condition: We identified a person as having a chronic condition in a given month if they received at least one diagnosis for a chronic condition, as defined by the Center for Medicare & Medicaid Services Chronic Conditions Warehouse (CCW), within the measurement year or a designated lookback period. We used claims from any place of service (i.e., inpatient, outpatient, or professional setting) to identify chronic conditions.

Serious mental illness (SMI): We used guidance from CMS's "Section 1115 Serious Mental Illness and Serious Emotional Disturbance Demonstrations Monitoring Metrics Technical Specifications" to define SMI, which builds on a definition from the National Committee for Quality Assurance (NCQA). NCQA defines individuals with SMI as those who meet at least one of the following criteria within the measurement period: (1) at least one acute inpatient claim/encounter with any diagnosis of schizophrenia, schizoaffective disorder, bipolar disorder, or major depression, OR; (2) at least two visits in an outpatient, IOP, community mental health center, electroconvulsive therapy, observation, ED, nonacute inpatient, telehealth setting, telephone visit, or e-visit or virtual check-in on different dates of service with a diagnosis of schizophrenia or schizoaffective disorder OR; (3) at least two visits in an outpatient, IOP, community mental health center, electroconvulsive therapy, observation, ED, nonacute inpatient, or telehealth setting on different dates of service with a diagnosis of bipolar disorder. The CMS "Section 1115 Serious Mental Illness and Serious Emotional Disturbance Demonstrations Monitoring Metrics Technical Specifications" provides applicable value sets in its Table B.1 and guidance on the definition of SMI in its Appendix E.

Rural residence. We defined a person as having a rural residence if their residence was in a non-urban ZIP code as defined by the RUCA codes.

High poverty. We defined a person living in a high-poverty area based on Census data indicating the mean income for the ZIP code was below 20% of the statewide median income.

Race and ethnicity. We also included sub-analyses for enrollees based on self-reported race data in Medicaid enrollment records, including the following categories: American Indian and Alaska Native (AI/AN), Asian, Black, Hawaiian or Pacific Islander (HI/PI), Hispanic, or white.

Statistical Analyses

Our analyses and results were designed to account for the COVID-19 PHE and provide context for how services changed. We treat 2017 and 2018 as baseline years and estimate effects from the baseline to 2022, the last year of available data. We also estimate changes between 2020-2021 (peak PHE years) and 2022, which is designed to provide estimates that speak to the rebound or resiliency associated with the PHE. For statewide results, we present the final rate in 2022, the change from the baseline (2017-2018) to 2022, and the change from the peak PHE years (2020-2021) to 2022. We also provide the size of the population (denominator, or N) in consideration for each measure in 2022.

Covariates included gender, age categories (<18, 18-24, 25-34. 35-44, 45-54, and 55-64), urban or rural status (defined at the zip code through RUCA codes, with values <=3 indicating rural residence), and selected CDPS indicators (capturing risk related to cancer, cardiovascular, central nervous system, diabetes, eye, gastrointestinal, genital, hematological, infectious, metabolic, pregnancy, pulmonary, renal, skeletal, and skin conditions). Standard errors were adjusted for clustering at the PCSA level.

Initiative 1: Survey Analyses (Chapters 2-4)

In this appendix, we describe our primary care practice and hospital surveys. Due to the impacts of low survey response rate, we chose to use different survey analysis methods for the round two survey data collection than those used for baseline. As such, we present survey methods in two sections, beginning with our baseline approach.

The Data Appendix presents population estimates for each item on the practice and hospital surveys with 95 percent confidence intervals.

Baseline Survey Methods

Survey Development and Testing

We selected survey items that would allow us to construct quantitative indicators of health care transformation across the state, with a focus on value-based payment (VBP) adoption, workforce capacity, and health information technology (HIT) use. Responses to these items were used to estimate statewide change in these indicators and to target practices and hospitals for key informant interviews.

To identify survey items, we met with Washington experts to learn about the state's objectives for the survey and explore potential survey domains. We reviewed key documents, including Washington's Medicaid waiver and the state's CMS-approved Evaluation Design, to understand the state's VBP, workforce, and HIT goals. In addition, we reviewed items from a number of existing surveys covering VBP adoption, workforce capacity, and HIT use. These include large national or international surveys with validated items, such as the National Electronic Health Records Survey sponsored by CMS and the Commonwealth Fund's International Survey of Primary Care Doctors; surveys conducted in Washington, including the Washington State Health Care Authority's Value-Based Purchasing survey and the Washington Health Workforce Sentinel Network survey; and several surveys conducted by Washington's ACHs.

In spring 2019, we conducted cognitive testing of draft survey instruments with a small group of staff at two practices and two hospitals in Washington. We asked staff to complete the draft survey and describe their experience completing the survey, including their understanding of the items, points at which they were confused or had difficulty answering questions, points when they might be inclined to discontinue before completion, and time needed to complete the survey. After each session, we used this information to revise the draft surveys before retesting on new subjects.

Sampling Strategy

For the first round of survey data collection, our goal was to survey a sample of 275 primary care practices and all hospitals in Washington. This section describes the lists of practices and hospitals we used to administer the surveys and the procedures we used to select practices and hospitals from the lists.

Primary care practice and hospital lists

To develop our initial primary care practice and hospital lists, we selected practices and hospitals to survey from a roster provided by Washington's All-Payer Health Care Claims Database (WA-APCD). We chose to obtain practice and hospital information from the WA-APCD because it provides both physical address information and claims-based information on payer mix and size, which we needed to execute our sampling strategy and evaluate the representativeness of our sample.

The WA-APCD roster included 469 practices and 86 hospitals. Onpoint Health Data (Onpoint), the contractor that administers the WA-APCD, used this roster to create Washington HealthCareCompare, a website that presents

information on the quality of health care providers and the price of health care procedures to consumers, for the Washington State Office of Fiscal Management (OFM). Onpoint worked with LexisNexis, a provider of business and legal information, to create the roster using national provider identifiers (NPIs) from claims data submitted to the WA-APCD by health care payers, including commercial insurance carriers and Medicaid managed care organizations.

Onpoint focused its outreach and data validation effort on large practices, since these were the focus of public reporting on Washington HealthCareCompare. However, the roster was developed from all NPIs that payers submitted to the WA-APCD and Onpoint did not actively make efforts to exclude small practices or rural practices from the list. As a result, we expect the roster to sufficiently represent practices across Washington.

To help us create a representative sample of primary care practices and analyze the survey data, Onpoint computed two supplemental variables for each practice and hospital on the roster: Medicaid Panel Mix, defined as the percentage of unique attributed patients (for practices) or discharges (for hospitals) in 2017 covered by Medicaid, among patients or discharges covered by all payer types; and Total Panel Count, defined as the total count of unique attributed patients (for practices) or discharges (for hospitals) in 2017 across all payer types.

Primary care practice sample (baseline)

We used over-sampling and stratified sampling to ensure we included a sufficient number of practices in each ACH region, practices in rural and urban zip codes, and practices actively partnering with ACHs on health improvement projects. Our procedure was based on the expectation that a simple random sample would fail to capture a sufficient number of responses from practices in each of these categories. We used the following steps:

Step 1: Select practices with a Medicaid Panel Mix of at least 20 percent. MTP is intended to transform Washington's Medicaid delivery system. To focus the survey on practices most likely to respond to MTP (i.e., practices that serve a substantial number of Medicaid patients), we sampled exclusively from practices with a Medicaid Panel Mix of at least 20 percent, excluding 89 practices from the roster that failed to meet the threshold. After this step, there were no selected practices, and 380 practices to choose from in the next step.

Step 2: Survey all 35 practices in rural zip codes from the remaining practices. After this step, there were 35 practices that had been selected, and 345 to choose from in the next step.

Step 3: Stratify by ACH. We drew up to 25 urban practices from each of the nine ACH regions. After Steps 1 and 2, there were four ACH regions with fewer than 25 practices remaining to be sampled. In these regions, we included all remaining practices in the sample. After this step, there were 221 practices that had been selected, and 159 to choose from in the next step.

Step 4: Create an ACH partner oversample. We drew a random sample of 25 practices from the remaining practices listed on ACHs' July 2019 provider rosters as "Actively Implementing in Support of at Least One Project Area." The provider rosters, which HCA requires ACHs to submit as a deliverable, offer the best available list of practices actively partnering with ACHs on health improvement projects. After this step, there were 246 practices that had been selected, and 134 to choose from in the next step.

Step 5: Sample remaining practices with a simple random sample. We drew additional practices from the remaining population using a simple random sample in order to create a sample of 275 total practices. After this step, there were 275 practices that had been selected and 105 that were not selected during the process.

Hospital Sample (baseline)

Our goal was to survey all hospitals on the WA-APCD roster with physical addresses in Washington. The list included 16 hospitals in Idaho and Oregon, which we excluded, leaving 70 hospitals to survey.

Survey Administration and Data Cleaning

We administered practice and hospital surveys from September 2019 through January 2020. Using publicly available phone numbers from practice and hospital website searches, we attempted to contact each practice in the selected sample and all hospitals in Washington to identify the person best able to answer the survey questions, along with their email address. Once identified, we sent this person a link to a web-based version of the survey by email. If the recipient clicked the opt-out button, we noted this and ceased following up. For those who did not complete the survey, we followed up weekly (up to seven times) with emails and called at least three times to request they complete the survey. Additionally, we continued to pursue identities of the people best able to answer survey questions for the practices and hospitals we were unable to connect with during previous phone call attempts. Recipients who completed the survey received a $50 gift card. Those who did not complete the survey after the above follow-up steps were considered non-respondents.

After we closed the surveys, we reviewed all completed survey responses and removed any responses where the respondent opened the survey, did not opt out, and submitted the survey, but did not complete any of the survey, or if the respondent answered "yes" or "no" to every question with no comments, indicating that they did not consider the questions.

Follow-Up Survey Methods

Sampling Strategy

Primary care practices

We only sampled primary care practices that responded to the baseline survey. Out of the original primary care practice sample of 275 practices, 89 practices responded to the baseline survey. Thirty-one (of the 90) practices responded to our follow-up survey.

Hospitals

We used the same sampling strategy as was utilized for the baseline survey. As such, all hospitals were sampled again for the follow-up survey. We sampled 26 hospitals in the baseline survey and 24 in the follow-up survey.

Survey Administration and Data Cleaning

We administered practice and hospital surveys from February 2022 through April 2022. We used the same approach as described in the baseline methods section above.

Sample Weighting

The second wave of the survey occurred during the COVID-19 PHE. Response rates were considerably muted during this period, as practices struggled with provider burnout and the overall shock to the health care system. We present unweighted survey responses in the summative evaluation because of low response rates and concerns that weighting would provide unstable estimates.

Initiative 1: Health Improvement Projects (Chapters 6-13)

Metric Selection and Data Sources

We selected metrics and used data described in the Statewide Measures section of the Appendix.

Population and Subgroups

Exhibit B.5. Target Populations for Quantitative Evaluation of Health Improvement Projects

Project	Target Population 1 (Broad)	Target Population 2 (Narrow)	Type of Analysis
Project 2A: Bi-Directional Integration of Physical and Behavioral Health Care	Any behavioral health condition	Behavioral health and physical health comorbidity	Pre-post
Project 2B: Community-Based Care Coordination	Behavioral health and physical health comorbidity	High risk pregnant women	Difference-in-Difference
Project 2C: Transitional Care	Discharged from hospital and any chronic condition	Individuals in transition from intensive settings of care or institutional settings	Difference-in-Difference
Project 2D: Diversion Interventions	>3 ED Visits in Year Prior to Intervention	>5 ED Visits in Year Prior to Intervention	Difference-in-Difference
Project 3A: Addressing the Opioid Use Public Health Crisis	Adults 19-64 (for preventive measures only)	Individuals with OUD	Pre-post
Project 3B: Reproductive and Maternal/Child Health	Women of reproductive age	Pregnant women	Difference-in-Difference
Project 3C: Access to Oral Health Services	All beneficiaries	Pregnant women	Difference-in-Difference
Project 3D: Chronic Disease Prevention and Control	People w/diabetes, asthma, COPD, cardiovascular conditions	Type 2 Diabetes Only	Pre-post

Statistical Analyses

To evaluate the impact of the eight HIPs on health care utilization and outcomes, we examine relevant health measures in regions that participated in a project. We used two approaches to reflect different levels of project adoption across regions:

Pre-post. Three projects (2A, 3A, and 3D), were implemented by all nine ACHs. In the absence of a suitable comparison group, we compare outcomes treating 2017 and 2018 as baseline years and estimate effects from the baseline to the PHE years (denoted as 2020 and 2021) and baseline to 2022 (when the largest impacts of the PHE were beginning to recede). We also estimate changes between 2020-2021 and 2022, which is designed to provide estimates that speak to the rebound or resiliency associated with the PHE.

Difference-in-differences. Five HIP projects were implemented by some, but not all, ACHs. In these cases, we conduct a difference-in-differences (DD) analysis. In this approach we take the change in outcomes among participating ACHs and subtract the change in outcomes among the remaining ACHs. This approach is designed to net out secular or regional statewide changes and improves the potential for isolating effects that can be attributable to the HIP.

Pre-post regressions

The pre-post analyses include two separate regressions, which take the general forms:

$$Y_{it} = m(b_0 + b_1 * Y2019_t + b_2 * Y2020\_2021^t + b_3 * Y2022_t + \theta * \mathbf{X_{it}} + e_{it}) \ (1)$$

$$Y_{it} = m(a_0 + a_1 * Y2022_t + \theta * \mathbf{X_{it}} + e_{it}) \ (2)$$

Equation (1) treats 2017 & 2018 as baseline years and estimates effects for 2019, 2020-2021, and 2022.

Equation (2) restricts the sample to the 2020-2022 time period, treating 2020 & 2021 as baseline years and estimating effects for 2022.

In equation (1) Y_{it} is the outcome of interest for individual i in calendar-year t , $Y2019_t = 1$ if the observation occurs in 2019, and 0 otherwise; $Y2020\_2021_t = 1$ if the observation occurs in 2020 or 2021, and 0 otherwise; $Y2022_t = 1$ if the observation occurred in 2022, and 0 otherwise; X_{it} is a vector of demographic covariates and risk adjusters, and e_{it} is a random error term associated with the unmeasured variation in the outcome of interest. The coefficients of interest in equation 1 are b_2 and b_3. The coefficient b_2, estimates the change from the baseline into the PHE. The second, b_3, estimates the change from the baseline into 2022. Equation (2) is estimated in the 2020-2022 time period and is designed to provide estimates that speak to the rebound or resiliency associated with the PHE. In this equation, the coefficient of interest is a_1, which estimates the change from the PHE (2020 and 2021) to 2022.

For computational ease and interpretability, we use ordinary least squares for analyses. We estimate equations (1) and (2) separately for each ACH.

Difference-in-Difference Regressions

In its simplest form, the DD model estimates the average change in outcomes of interest for the treated group, subtracted by the average change in outcomes for a comparison group. We estimate two models, presented here in a simple linear regression framework:

$$Outcome_{it} = \alpha_0 + \alpha_1 * Treated_{it} + \alpha_2 * Y2019_t + \alpha_2 * Y2019_t * Treated_{it} + + \alpha_3 * Y2020\_2021_t + \alpha_4 * Y2020\_2021_t * Treated_{it} + \alpha_5 * Y2022_t + \alpha_6 * Y2022_t * Treated_{it} + \pi X_{it} + e_{it} \ (3)$$

$$Outcome_{it} = \beta_0 + \beta_1 * Treated_{it} + \beta_2 * Y2022_t + \beta_3 * Y2022_t * Treated_{it} + \omega X_{it} + e_{it} \ (4)$$

where i indexes the individual; and t the time period (our default unit of observation will be the person-calendar year). The dependent variable $Outcome_{it}$ represents the outcome variable, measured at, e.g., the person-calendar=year level. The variable X_{it} represents a vector of individual level variables (including age, gender, risk adjusters, and regional variables such as urban or rural residence).

Equation (3) treats 2017 & 2018 as baseline years and estimates effects for 2019, 2020-2021, and 2022.

Equation (4) restricts the sample to the 2020-2022 time period, treating 2020 & 2021 as baseline years and estimating effects for 2022.

We define "Treated" as an indicator variable taking a value if the beneficiary was in an ACH that implemented the project in question (e.g., BHT for Project 2B), and zero otherwise. Equation (3) is run on the whole sample. The coefficients α_4 and α_6 in Equation (3) are the coefficients of interest. Equation (4) is restricted to the years 2020-2022. The coefficient β_3 is the coefficient of interest.

We also estimate these equations separately for each ACH that participates in the HIP, with the comparison group of ACHs remaining constant.

Covariates

Covariates included gender, age categories (18, 18-24, 25-34. 35-44, 45-54, and 55-64), urban or rural status (defined at the zip code through RUCA codes, with values <=3 indicating rural residence), and selected CDPS indicators (capturing risk related to cancer, cardiovascular, central nervous system, diabetes, eye, gastrointestinal, genital, hematological, infectious, metabolic, pregnancy, pulmonary, renal, skeletal, and skin conditions).

Clustering of Standard Errors

We adjusted our regressions by clustering at the level of the Primary Care Service Area (PCSA) PCSAs are groups of ZIP codes that were originally developed and validated by previous research to represent natural markets of primary care.

Initiative 2: MAC and TSOA (Ch. 14)

As described in Chapter 14, we conducted two separate analyses as part of our evaluation of the MAC and TSOA programs:

- A descriptive analysis of program participant outcomes, including adverse health events and use of traditional LTSS, at enrollment and at six- and twelve-months post-enrollment in the MAC and TSOA programs
- A regression analysis to examine adverse health events and use of traditional LTSS associated with MAC program enrollment

Metric Selection

For both analyses, we selected three metrics measuring adverse health events (hospitalizations, emergency visits, and readmission rates). In addition, we derived four metrics to address the initiation of traditional LTSS and Medicaid expenditures for LTSS services, a metric to identify enrollment in Apple Health among TSOA program participants, and a metric measuring mortality. Metrics not provided by the state were state-defined. Details on these metrics are provided in Appendix A of this report.

The specific data source for individual measures varied and is described in detail in Appendix A. Adverse health event metrics were calculated by the state of Washington. We received annual and quarterly records showing whether each Apple Health enrollee met the criteria for each metric (e.g., whether a person had a hospitalization) in the corresponding measurement period. Adverse health events could not be evaluated for TSOA participants because they were not enrolled in Medicaid.

In addition, we received Medicaid claims and enrollment records, service delivery system affiliation (Apple Health enrollees served through the Aging and Long-Term Support Administration or Apple Health enrollees served through the Health Care Authority), and demographic information. Metrics of traditional LTSS use and related expenditures were calculated from LTSS and nursing home claim data currently integrated into the state's ICDB. Mortality was derived from death certificate records currently integrated into the state's ICDB and, unlike other data in this report, was only available through the calendar year 2021.

Medicaid enrollment among TSOA program participants was identified using Medicaid enrollment records. We excluded cases involving individuals enrolled in Medicaid for partial benefits (such as QMB-only, QI01, SLMN, QDWI, and family planning), as well as those enrolled in the Apple Health Medically Needy Program.

Sample

Descriptive analysis: This analysis included those who enrolled in the MAC or TSOA programs between September 2017 and June 2022 (six months before the end of our study period). To reliably evaluate their baseline adverse health events, we restricted our study population to MAC program participants who had been enrolled in Medicaid for at least six months before enrolling in MAC.

In addition, for measures of adverse health events, we excluded those who were enrolled in Medicare Advantage, which we defined as dual-eligibility with a third-party liability flag during the study period. For measurement of adverse health events at 0-6- and 7-12-months following enrollment, we required six and twelve months of program enrollment, respectively. We restricted our analysis of mortality in months 0-6 following enrollment to those enrolled before Q3 2021 (2 quarters before our last death data, which was available through 12/31/2021), and to those enrolled before Q1 2021 (four quarters before our last death data) for our analysis of months 7-12 following enrollment.

For our analyses of Apple Health enrollment, initiation of traditional LTSS use, and LTSS expenditures in months 7-12 following program enrollment, we restricted our study population to those who were enrolled in the program for at least six months.

Regression analysis: This analysis included both the treatment group (i.e., those who enrolled in the MAC program between September 2017 and June 2022 (six months before our study period's end) and the comparison group (i.e., those who were not enrolled in the MAC program but had similar characteristics to MAC enrollees during the quarter right before MAC program enrollment).

For each Apple Health enrollee participating in the MAC program, we identified three comparable persons who were 1) never enrolled in MAC during our study period, 2) aged at least 55 years, 3) had the same race, rural residence, CDPS risk score, substance use disorder, and select risks of LTSS use (e.g., nursing, respite care, and personal care services) as those enrolled in the MAC program, and 4) had similar age, sex, race and ethnicity, rural residence, Medicare enrollment, CDPS risk score, substance use disorder, and risk for LTSS use.

Risk for LTSS use was calculated using state-defined criteria and included:

- The following frailty diagnoses were identified using ICD-10 diagnosis codes:
  - Abnormal gait/difficulty walking; Adult failure to thrive; Altered mental status; Bed confinement status; Dependence on a wheelchair; Dependence on other enabling machines and devices; Dizziness or vertigo; Dyspnea/shortness of breath; Effects of cerebrovascular disease; Falls; Fragility or fracture; Hypotension/syncope; Lack of coordination; Limitation of activities due to disability; Malaise/fatigue; Muscle weakness/wasting; Need for assistance/supervision; Nutritional deficiencies; Other reduced mobility; Parkinson's Disease; Peptic ulcer; Urinary incontinence; Weight loss.
- The following durable medical equipment and frailty service codes were identified using Healthcare Common Procedure Coding System (HCPCS) codes:
  - Accessories for oxygen delivery devices; Breathing aids; Commode chair; Diabetic footwear; Hospital beds and associated supplies; Humidifiers and nebulizers with related equipment; Nursing, respite care, and personal care services; Oxygen delivery systems and related supplies; Rocking bed with or without side rails; Skilled RN services related to home health/hospice setting; Walking aids and attachments; Wheelchair or transport chair and related accessories; Wheelchairs, components, and accessories.

We used the MatchIt procedure in R to implement our matching approach and reviewed the standardized (mean) difference to ensure the quality of our matches. A low standardized difference indicates close matching between treatment and comparison individuals. We required standardized differences to be <=0.1 for all matching characteristics.

We further required all individuals in the treatment and comparison groups to be fully enrolled in Apple Health during the four quarters prior and two quarters following the quarter of MAC program enrollment and required the treatment group to be continuously enrolled in MAC for two subsequent quarters unless they died or enrolled in LTSS services during the post-enrollment period. Treatment and comparison individuals were also restricted from receiving LTSS services at the time of MAC enrollment. In addition, for measures of adverse health events, we excluded those who were enrolled in Medicare Advantage, which we defined as dual-eligibility with a third-party liability flag during the study period.

Statistical Analyses

Descriptive analysis: To assess the impact of the COVID-19 PHE on older adults' LTSS use, we defined the onset of COVID-19 as January 1, 2020. Enrollment in the TSOA program prior to this date was defined as the "pre-

COVID-19 Period," while enrollment on or after this date was defined as the "post-COVID-19 Period." We did not have an adequate sample size to conduct an analysis stratified by the COVID-19 period for the MAC program.

Regression analysis: *We estimated the following difference-in-differences regression:*

$$Outcomeit=\beta_0+\beta_1 MAC_i+\beta_2 Post_{it}+\beta_3 MAC_i*Post_{it}+\delta X_{it}+_{\varepsilon it} \quad (5)$$

where i is an individual in our sample; t is time relative to first MAC receipt (quarter); MACi is an indicator variable equal to one if a person was enrolled in the MAC program, and xero if a person was in the comparison group; Postit is the first and second quarter following the quarter of MAC enrollment; X_{it} is other covariates (e.g., age, gender, race and ethnicity, cumulative CDPS score rounded to the nearest integer, and Medicare enrollment); and εit is the error term. We estimated this regression separately for each outcome. Standard errors were clustered at the PCSA level.

The coefficient of interest was the interaction between MAC enrollment and the post-intervention period (i.e., β_3 in the equation above). The coefficient β_3 estimated covariate-adjusted changes in outcomes among MAC enrollees during the pre-intervention period (the four quarters preceding the quarter of first MAC receipt) and the first and second quarters following the first MAC receipt relative to changes in outcomes among people in the comparison group in the same time periods.

A required assumption of the difference-in-differences approach is that trends in outcomes of the comparison group accurately represent trends in outcomes of MAC enrollees had they not received any MAC services. We tested for such parallel trends using the four quarters preceding the first MAC receipt and the following specification:

$$Outcome_{it}=\gamma_0+\gamma_1 MAC_i+\gamma_2 t+\gamma_3 MAC_i*t+\lambda X_{it}+\varepsilon_{it}$$

where $\gamma_3=0$ corresponds to parallel trends and t is time relative to first MAC receipt (quarter). The table below displays the results of our parallel pre-trend tests. All outcomes except hospitalization met parallel pre-trend assumptions.

Covariates

Covariates included age categories (55-64 years, 65-74 years, 75-84 years, 85+ years), sex, race (American Indian and Alaska Native, Asian, Black, Hawaiian or Pacific Islander, White, all other races/race not provided), ethnicity (Hispanic, not Hispanic, ethnicity not provided), CDPS score rounded to the nearest integer, and Medicare enrollment.

Clustering of Standard Errors

We adjusted our regressions by clustering at the level of the Primary Care Service Area (PCSA). PCSAs are groups of ZIP codes that were originally developed and validated by previous research to represent natural markets of primary care.

Initiative 3: Foundational Community Supports (Chapter 15)

Metric Selection and Data Sources

We selected 25 metrics for evaluating the Foundational Community Supports (FCS) program. We excluded some Initiative 1 measures because they were not relevant for this program (e.g., well-child visits in the first 15 months of life). Appendix 1 of Washington State's Evaluation Design provides details of metrics used for our evaluation of this program (Washington State Health Care Authority, 2017c).

The specific data source for individual measures varied and is described in detail in Appendix A. The metrics we used in Chapter 15 were calculated by the state of Washington; we created measures of homelessness (level of homelessness, transitioning into homelessness, transitioning out of homelessness) based on information provided by the state. We received quarterly records showing whether each Apple Health enrollee met the criteria for each metric (e.g., whether a person had a primary care visit or a recommended test or screening) in the corresponding measurement year. In addition, we received Medicaid enrollment records that included information about each person's participation in FCS programs, service delivery system affiliation (Apple Health enrollees served through the Aging and Long-Term Support Administration (ALTSA) or Apple Health enrollees served through the Health Care Authority (HCA), and demographic information).

Population and Subgroups

We defined three FCS program groups: Apple Health enrollees participating in (i) supportive housing; (ii) supported employment; (iii) both supportive housing and supported employment. For each of these FCS program groups, we identified a comparison group using a matching approach similar to the one specified in Danielson, Mancuso and Felver (2020). Specifically, we exact-matched FCS statistical participants to Apple Health enrollees who did not participate in the program using beneficiaries' characteristics (age, gender, primary race, and ethnicity, cumulative CDPS score (rounded to the nearest integer to aid finding exact matches), and a binary variable indicating the presence of an SUD diagnosis) and the quarter of first FCS service receipt. We also required all individuals in the treatment and comparison group to be fully enrolled in Apple Health during the 12 months prior and 12 months following first FCS service receipt.

We repeated the matching approach for each of the three FCS program groups to create three corresponding comparison groups. We used the MatchIt procedure in R to implement our matching approach. Unlike in Danielson, Mancuso and Felver (2020), we did not also match on prior utilization measures for our main analysis. Instead, we tested for parallel trends to assess the quality of our difference-in-differences approach and conducted additional sensitivity analyses related to this approach (see below).

For sensitivity analyses, we created an alternative sample for which the matching algorithm also included key utilization metrics for the pre-enrollment period. These were the ED visit rate, arrest rate, employment rate, acute hospital utilization, and chronic homelessness at enrollment. We used exact matching for the chronic homeless measure and nearest matching for the other utilization measures. We then repeated the difference-in-differences analysis on the alternative matched sample.

We reported results for each of the three FCS program groups in aggregate as well as stratified by participants' delivery system affiliation (ALTSA or HCA) and COVID-19 period (pre- versus post-COVID-19). For the FCSH program we also stratified by chronic homelessness status to assess whether imbalance in chronic homelessness among FCSH participants and the comparison group may affect findings.

Statistical Analyses

We used a difference-in-differences approach. The pre-intervention period included the last two quarters before first FCS enrollment (also called index quarter) and the post-intervention period included the third and fourth quarter following the index quarter. The regression equation can be written as follows:

$$Y_{it} = a*Treat_i + b*Post_t + c*(Treat_i*Post_t) + d*X_{it} + e_{it} \quad (6)$$

where Y_{it} is the outcome of interest, $Treat_i$ is an indicator equal to one if individual i is in the treatment group, $Post_t$ is an indicator equal to one for the post-intervention period (where t measures quarters relative to FCS enrollment), X_{it} are covariates and e_{it} is the error term, which were clustered at the PCSA level. The coefficient of interest was c.

For the assessment of COVID-19-related differences, we further interacted the difference-in-differences model with an indicator for the PHE period:

$$Y_{it} = a*Treat_i + b*Post_t + c_1*(Treat_i*Post_t) + c_2*(Treat_i*Post_t*PHE_i) + d*X_{it} + e_{it} \quad (7)$$

where PHE_i was one for individuals enrolled during the PHE period.

Covariates

Covariates included age categories (18-24 years, 25-34 years, 34-44 years, 45-54 years, 55-64 years, 65+ years), sex, race (American Indian and Alaska Native, Asian, Black, Hawaiian or Pacific Islander, White, All other races/race not provided), ethnicity (Hispanic, not Hispanic, ethnicity not provided), CDPS score rounded to the nearest integer, and SUD diagnosis flag.

Clustering of Standard Errors

We adjusted our regressions by clustering at the level of the Primary Care Service Area (PCSA) PCSAs are groups of ZIP codes that were originally developed and validated by previous research to represent natural markets of primary care.

Initiative 4: Substance Use Disorder Waiver (Chapter 16)

Metric Selection and Data Sources

We selected 29 metrics from the state's Evaluation Design, selecting metrics listed in Chapter 17, which covers the Substance Use Disorder Demonstration Amendment Evaluation Design. Details on these metrics are provided in Appendix A.

We used a combination of metrics calculated by the state of Washington as well as metrics calculated from raw claims, including Apple Health enrollment records that included information about each person's demographics, and Medicaid claims/encounters records that identified diagnoses and services each person received. For metrics not provided by the state, we used CMS' Medicaid Section 1115 Substance Use Disorder Demonstrations: Technical Specifications for Monitoring Metrics, Version 3.0 (Mathematica, 2020) to develop our metrics.

Data on overdose rates were obtained from Vital Statistics from the tate of Washington. Data on facilities that billed Medicaid for SUD services and providers who billed for medications for addiction treatment were obtained from the Washington State Health Care Authority.

Populations and Subgroups

Primary study populations included all adult Medicaid enrollees ages 18-64 and adult Medicaid enrollees ages 18-64 with SUD. The secondary study population included adult Medicaid enrollees with SUD who had a diagnosis for OUD.

Adults with SUD. The primary study population included adult Medicaid enrollees ages 18-64 with at least one SUD diagnosis (ICD-10 codes: F10.XXX, F11.XXX, F12.XXX, F13.XXX, F14.XXX, F15.XXX, F16.XXX, F18.XXX, F19.XXX) within the last 24 months.

Adults with OUD. The secondary study population included adult Medicaid enrollees ages 18-64 with at least one OUD diagnosis (ICD-10 codes: F11.XXX) within the last 24 months.

Statistical Analyses

Washington's SUD waiver became effective in July 2018. To align waiver implementation with calendar years that were used in metrics specifications, we defined 2017 as the baseline period, 2018-2019 the washout period, 2020-2021 as the PHE period and 2022 as the resiliency period. The following equation describes the regression approach:

$$Y_{it} = b_0 + b_1*\text{Years2018-2019} + b_2*\text{Years2020-2021} + b_3*\text{Year2022} + a*X_{it} + e_{it} \quad (8)$$

where Y_{it} is the outcome of interest for individual i in year t, Year indicators are equal to one if the observation occurred in respective year(s) and zero otherwise, X_{it} is a vector of demographic covariates and risk adjusters (see below), and e_{it} is the random error term, clustered at the PCSA level. The coefficient b_3 measured the difference between baseline and 2022, which was the primary pre-post difference of interest; coefficients b_2 and b_3 were used to assess changes from PHE to 2022.

Covariates

Covariates included gender, age categories (<16, 16-24, 25-64), urban or rural status (defined at the zip code through RUCA codes, with values <=3 indicating rural residence), and selected CDPS indicators (capturing risk related to cancer, cardiovascular, central nervous system, diabetes, eye, gastrointestinal, genital, hematological, infectious, metabolic, pregnancy, pulmonary, renal, skeletal, and skin conditions).

Clustering of Standard Errors

We adjusted our regressions by clustering at the level of the Primary Care Service Area (PCSA) PCSAs are groups of ZIP codes that were originally developed and validated by previous research to represent natural markets of primary care.

Initiative 5: Serious Mental Illness Waiver (Chapter 17)

Metric Selection

We selected 37 measures based on CMS's "SMI/SED and SUD Evaluation Design Guidance: Appendix A." These include a mix of 19 measures of utilization, quality and expenditure generated from claims data, and 18 measures of changes in the availability of providers.

Data Sources

The metrics we used were calculated by the state of Washington. We received records showing whether each Medicaid member met the criteria for each metric in each month from January 2020 through December 2022. We focused our analyses on calendar years 2020 through 2022. In addition, we received Medicaid enrollment records that included information about each person's demographics, and Medicaid claims/encounters records that identify diagnoses and services each person received.

For the provider availability assessment, we used data from the state, generating measures to assess provider capacity in 18 areas in the baseline year (2020), midpoint year (2021), and change over time. The midpoint year (2021) was the most recent available data on provider availability.

Populations and Subgroups

The SMI waiver is focused on adults with SMI (serious mental illness) and children and adolescents with SED (serious emotional disorders).

Adults with SMI. We used guidance from CMS's "Section 1115 Serious Mental Illness and Serious Emotional Disturbance Demonstrations Monitoring Metrics Technical Specifications" to define SMI, which builds on a definition from the National Committee for Quality Assurance (NCQA). NCQA defines individuals with SMI as those who meet at least one of the following criteria within the measurement period: (1) at least one acute inpatient claim/encounter with any diagnosis of schizophrenia, schizoaffective disorder, bipolar disorder, or major depression, OR; (2) at least two visits in an outpatient, IOP, community mental health center, electroconvulsive therapy, observation, ED, nonacute inpatient, telehealth setting, telephone visit, or e-visit or virtual check-in on different dates of service with a diagnosis of schizophrenia or schizoaffective disorder OR; (3) at least two visits in an outpatient, IOP, community mental health center, electroconvulsive therapy, observation, ED, nonacute inpatient, or telehealth setting on different dates of service with a diagnosis of bipolar disorder. The CMS "Section 1115 Serious Mental Illness and Serious Emotional Disturbance Demonstrations Monitoring Metrics Technical Specifications" provides applicable value sets in its Table B.1 and guidance on the definition of SMI in its Appendix E.

Children/Adolescents with SED. To define SED, we looked at guidance from a 1993 Federal Register[114] and a 2014 expert panel convened by the Substance Abuse and Mental Health Services Administration (SAMHSA).115 SED was defined broadly, including SMI, and mild and moderate mental health conditions, but excluding SUD and neurodevelopmental disorders (except attention deficit-hyperactivity). We thus define SED broadly and include children and adolescents with any diagnoses in the previous year that include the following categories derived from ICD-10 groupings as part of the Agency for Healthcare Research and Quality's Clinical Classification Software Refined system:[116] EXT021; MBD001-MBD013; MBD027; and RNVS016. We will also include ICD10 codes R455-R457, R4583, R45850, R4587, R462, R466, and R4681 to capture additional psychotic symptoms and regulatory behaviors, and codes F900-902 and F908-F909 to capture attention-deficit hyperactivity disorders. Following federal guidance, we focus on enrollees ages 4-20.

Statistical Analyses

We conducted pre-post analyses. Recognizing that the SMI/SED amendment became effective December 23, 2020, we focused on changes from 2020 to 2022. We include data from 2020, 2021, and 2022. Our primary model is a flexible model designed to assess changes over time:

$$Y_{it} = m(b_0 + b_1 * Year2021 + b_2 * Year2022 + a * X_{it} + e_{it}) \quad (9)$$

where Y_{it} is the outcome of interest for individual i in year t, Year20XX is equal to one if the observation occurs in the Year 20XX and zero otherwise; X_{it} is a vector of demographic covariates and risk adjusters, and eit is a random error term associated with the unmeasured variation in the outcome of interest. The coefficients on the Year20XX dummies provide an estimate of how much the outcome variable changed relative to the reference year (2020). We report estimates of the value of the coefficient b_2.

Outcome	γ_3	P-Value
ED Visits	-0.0050	0.71
Hospitalizations	0.0163	0.01
30-day readmission rates	-0.0513	0.36
Initiation of HCBS use	0.0036	0.07
Nursing facility entry	0.0013	0.62
Medicaid LTSS expenditures	-25.6190	0.18

Covariates

Covariates included gender, age categories (<16, 16-24, 25-64), urban or rural status (defined at the zip code through RUCA codes, with values <=3 indicating rural residence), and selected CDPS indicators (capturing risk related to cancer, cardiovascular, central nervous system, diabetes, eye, gastrointestinal, genital, hematological, infectious, metabolic, pregnancy, pulmonary, renal, skeletal, and skin conditions).

Clustering of Standard Errors

We adjusted our regressions by clustering at the level of the Primary Care Service Area (PCSA) PCSAs are groups of ZIP codes that were originally developed and validated by previous research to represent natural markets of primary care.

Qualitative Methods

In this appendix, we provide detailed information about the qualitative data presented in this report, the data sources we used to develop findings, and the methods for conducting analyses.

Initiative 1 (Chapters 2-4 and 6-14)

Sample

Participants were purposively selected for diverse department representation and to ensure a range of perspectives and knowledge about MTP. Key informants were from five different groups: state employees, representatives from each of the nine ACHs, employees from each of the five MCOs, and leaders at medical and behavioral health provider organizations. We conducted an initial planning call with state representatives and each ACH leader to identify appropriate individuals to interview. As part of each interview, we asked interviewees to recommend other experts we should speak to for a deeper understanding of specific topics or for a different perspective. This multi-perspective approach was critical to holistically understand how MTP was implemented.

We used an iterative sampling strategy to achieve a maximum-variation sample. Our team moved between selecting some key informants for interviews, conducting interviews and analyzing the data, and then using insights from interviews to inform subsequent sample selection. The process of moving between selection, data collection, and analysis helped ensure a full range of ideas and perspectives and that we reached saturation.

To sample the medical provider organization interviews, we began by selecting organizations that responded to the first survey (see Appendix B, Quantitative Methods, Survey Methodology for further details on the quantitative survey methodology). Organizations were selected to achieve maximum variation on attributes such as ACH region, organization type (e.g., primary care practice; hospital) ownership (independent; hospital owned; Federally Qualified Health Center), panel size, payer mix, and ACH partnership status. We also aimed to achieve variation on survey responses, and selected organizations that reported minimal to advanced types of value-based payment arrangements and HIT tool use. Due to limited survey responses, we expanded our sample to include organizations that did not respond to the survey. We used a provider organization directory provided by HCA to purposively select more organizations that varied by ACH region, partnership status, and organization type.

To sample the behavioral health provider organizations, we used ACH provider rosters from Semi-Annual Reports. We purposefully selected two to three behavioral health provider organizations that partnered with each ACH and varied on characteristics such as organization type and size.

Exhibit C.1. Initiative 1 Sample

	# Interviews	Interview types/roles	Time period	Topics

State Interviews	22	Senior leadership, department directors, policy analysts, program managers	January 2019 - January 2021	Domain 1 (VBP, Workforce, HIT), MTP goals and design
ACH Interviews	96	Executive directors, program managers, and board members	May 2019 - May 2022	Roles and responsibilities, Domain 1 (VBP, Workforce, HIT), HIP selection, implementation and sustainability
MCO Interviews	6	Directors and managers	September 2019 - December 2020	Roles and responsibilities, experiences working with ACHs, VBP

C.3. Initiative 5 Sample

Key Informant Category	# Interviews
SUD Provider Organizations	6
Tribe- or Urban Indian Health Program- operated SUD Provider Organizations	1
Managed Care Organizations	2
Recovery Support Organizations	3
State Agency Staff (HCA, Department of Corrections)	2

Medical Provider Organization Interviews	29	CEOs, CFOs, directors, clinic managers	August 2020 - June 2021	Domain 1 (VBP, Workforce, HIT), experiences working with ACHs, HIP implementation
Behavioral Health Provider Organization Interviews	20	CEOs, directors, clinic managers	November 2022 – June 2023	Domain 1 (VBP, Workforce, HIT), experiences working with ACHs, HIP implementation

Data Collection

Interviews. Semi-structured interviews followed a guide for each type of interviewee. Interview guides were revised based on what we learned in each interview and tailored to each interviewee based on their area of expertise. ACH interviews were conducted at three separate time points, and sometimes ACH key informants were interviewed more than once to capture ACHs' experiences over time. The number of ACH interviews was based on the ACH's size, organizational structure, number of selected health improvement projects, and staff turnover. For the medical provider organization interviews, among the organizations that completed the first survey, we invited the individual who completed the survey to participate in an interview. To recruit organizations that did not complete the survey, we used publicly available contact information and cold-calling methods to recruit and identify appropriate participants that worked for non-partnered organizations. We asked each ACH for contact information and introductions when recruiting partnered organizations.

Interviews were approximately one hour long and primarily completed remotely using video conferencing software or over the phone. However, some initial ACH interviews were conducted in person. Interviews were recorded with permission and professionally transcribed and reviewed for accuracy.

Public Documents. We collected publicly available documents produced by HCA and the ACHs as they became available throughout the MTP demonstration period. Documents included the Section 1115 waiver application, the MTP Toolkit, Semi-Annual Reports, and ACH artifacts (e.g., presentation slides, provider rosters, and reports).

Data Management and Analysis

All interviews were professionally transcribed and de-identified. Transcripts and public documents were entered into Atlas.ti (Version 9, Atlas.ti Scientific Software Development GmbH, Berlin, Germany) for data management and analysis.

We used a deductive approach, as we wanted to identify, categorize, and describe the implementation support strategies ACHs used to address each of the Domain 1 topics and each of their selected HIPs and, to the extent possible, the specific changes ACH partner organizations made. To do this, we developed a code book that we used to tag interview segments. The team analyzed the data as a group until these codes were consistently applied to the data. The remaining data were analyzed by individual analysts, with meetings used to discuss questions that emerged during analysis. The output for these codes was analyzed a second time and state-level summaries on each Domain 1 topic and their selected HIPs were created. These summaries were used to describe the types of implementation support ACHs provided, identify the extent to which this was connected to partner organization change, and to document state, ACH, MCO and provider organization leaders' experiences with Initiative 1. Having interviewees across multiple perspectives allowed us to have a rich understanding of the MTP implementation experience from varied viewpoints.

Once the qualitative and qualitative findings were summarized, the full MTP analytical team met to discuss and connect these multiple data sources as well as to assess the extent to which ACH efforts aligned with survey responses, target populations, and outcome measures.

Initiative 3 (Chapter 16)

Sample

With support from HCA, we developed an initial list of key informants to invite to participate in an interview. Participants were selected for diverse department representation and to ensure a range of perspectives and knowledge about Foundational Community Supports (FCS). As part of each interview, we asked interviewees to recommend other experts we should speak to for a deeper understanding of specific topics or for a different perspective. We also interviewed key informants from provider organizations that delivered FCS. These were purposively selected to vary on characteristics such as organization type, size, and location. This multi-perspective approach was critical to holistically understand how FCS operated and was delivered.

We used an iterative sampling strategy to achieve a maximum-variation sample. Our team moved between selecting some key informants for interviews, conducting interviews and analyzing the data, and then used insights from interviews to inform subsequent sample selection. The process of moving between selection, data collection, and analysis helped ensure a full range of ideas and perspectives and that we reached saturation.

Exhibit C.2. Initiative 3 Sample

	# Interviews	Interview types/roles	Time period	Topics
State Interviews	7	ALTSA administrators (n=3), HCA (n=3); Amerigroup (n=1)	June-December 2021	Experiences providing technical assistance, model fidelity, implementation successes and challenges
Provider Organization Interviews	6	Providers delivering supportive housing and/or employment	January-February 2022	Experiences with billing and providing supportive housing and employment, how they assessed FCS program success

Data Collection

Public Documents. We began by collecting publicly available documents on the Individual Placement and Support model and the Permanent Supportive Housing model to better understand the model elements.

Interviews. Interviews lasted approximately one hour and were conducted using video software. Interview guides were revised based on what we learned in each interview and tailored to each interviewee based on their role and area of expertise.

Data Management and Analysis

We used an iterative and inductive analytic approach to categorize and tag interview data. We met as a group to discuss the first transcripts and collectively developed codes to identify and make sense of emerging themes. Then, one team member coded the remaining interview data, developed analytic memos, and met weekly with the team to further analyze the data, which included reviewing and refining how data were analyzed and coded, and discussing emerging findings. We then reviewed the data again, making comparisons across organizations. Having interviewees across multiple perspectives allowed us to have a rich understanding of the FCS experience from varied viewpoints.

Initiative 4 (Chapter 17)

Initiative 4 qualitative evaluation activities were conducted for the Midpoint Assessment of Washington's Section 1115 SUD Amendment report published in December 2020. Because there were not any new qualitative evaluation activities included in the evaluation design for the Summative Report, we summarized and reproduced key qualitative findings from the Mid-Point Assessment report alongside the new quantitative findings which reflect data through the end of the demonstration period. Qualitative methods from the Mid-Point Assessment of Washington's Section 1115 SUD Amendment report are reproduced below.

Sample

The assessment team conducted a series of interviews with key informants representing the waiver's main stakeholder groups including SUD providers, MCOs, Tribes, and beneficiaries. In collaboration with HCA, the assessment team identified a list of potential informants with experience-based knowledge of SUD treatment systems affected by the Section 1115 waiver. The team selected informants to represent multiple sectors within the treatment delivery system, including providers (with an emphasis on residential treatment providers),

tribal providers, recovery support organizations, MCOs, and representatives from HCA and the Department of Corrections. Within the provider category, the team aimed to maximize variation in geographic regions, provider size, tribal and non-tribal affiliation, and payer mix (predominantly Apple Health versus broad payer mix).

Data Collection

Once the assessment team and HCA had agreed upon a list, the agency emailed an introductory letter to informants providing background on the assessment. The team followed up with communications to schedule interviews, and invitations were sent to potential informants at 25 organizations. Eight informants did not respond to the invitation, and three informants declined (two for availability issues during the COVID-19 pandemic, the other for lack of pertinent information). This yielded 14 completed interviews with 19 participants (some organizations including more than one representative). Organizations declining for COVID-19 reasons included two of the three SUD treatment facilities operated by tribes or Urban Indian Health Programs (UIHPs) we contacted, which left one tribally specific provider in the sample.

Key informant interviews were conducted with SUD provider organizations (n=6), tribe or Urban Indian Health Program-operated SUD provider organizations (n=1), MCOs (n=2), recovery support organizations (n=3), and state agency staff members (n=2). Interviews lasted approximately one hour and followed a semi-structured guide. They were conducted remotely using the WebEx platform, allowing informants to connect via web video plus audio, web audio only, or phone, according to their preference. Interviews were recorded with informant permission, professionally transcribed, deidentified, and loaded into the Atlas.ti qualitative software application for analysis. The interview guide asked interviewees to describe how the Section 1115 SUD waiver affected SUD service delivery by their organization and across the state. We asked participants to identify and describe factors likely to affect progress toward milestones, as well as factors that might contribute to changes (or lack thereof) in metrics. We also asked interviewees to offer recommendations on actions the state might take to facilitate progress.

Data Analysis

The assessment team developed an analytic codebook centered on milestones and related aspects of Section 1115 waiver implementation, creating additional codes inductively in response to interview content. Three team members reviewed and coded initial interviews jointly and met at least weekly to refine the codebook and develop consistency in coding practice. Subsequent interviews were coded individually. Team members reviewed output by code to summarize the content on each milestone and related themes.

Initiative 5 (Chapter 18)

Sample

We consulted HCA to develop an initial list of state key informants to invite to participate in an interview. Participants were selected for their expertise and knowledge of the Section 1115 SMI/SED waiver, diverse department representation, and to ensure a range of perspectives. As part of each interview, we asked interviewees to recommend other experts to speak with for a deeper understanding of specific topics or for a different perspective.

In addition to state key informants, we also sought out representatives from each of the five MCOs that were knowledgeable about SMI/SED, as well as individuals who worked at Institutions for Mental Disease (IMDs) to learn about Section 1115 wavier-related changes they made. This multi-perspective approach was critical to deeply understanding how the Section 1115 SMI/SED was operationalized and implemented.

We used an iterative sampling strategy to achieve a maximum-variation sample. Our team moved between selecting some key informants for interviews, conducting interviews and analyzing the data, and then using insights from interviews to inform subsequent sample selection. The process of moving between selection, data collection, and analysis helped ensure a full range of ideas and perspectives. We continued this process until saturation was reached.

Exhibit C.4. Initiative 5 Sample

	# Interviews	Interview types/roles	Time period	Topics
State Interviews	6	HCA administrators	June-October 2023	Section 1115 SMI/SED waiver goals, anticipated impact, and experience implementing the waiver
MCO Interviews	4	Behavioral health administrators	October-November 2023	Section 1115 SMI/SED waiver impact, changes and experience implementing the waiver
Behavioral Health Provider Organization Interviews	2	Executive management team members	January 2024	Section 1115 SMI/SED waiver impact on workflows and patient care

Data Collection

Public Documents. We began by collecting and reviewing the Section 1115 SMI/SED waiver application to understand the waiver components and the changes Washington proposed in its application.

Interviews. All interviews lasted approximately one hour and were conducted using video software. Interview guides were revised based on what we learned in each interview and tailored to each interviewee based on their role and area of expertise.

Data Management and Analysis

We used an iterative and inductive analytic approach to categorize and tag interview data. We met as a group to discuss the first transcripts and collectively developed codes to identify and make sense of emerging themes. Then, one team member coded the remaining interview data, developed analytic memos, and met weekly with the team to further analyze the data, which included reviewing and refining how data were coded, and discussing emerging findings. We then reviewed the data again, making comparisons across organizations. Having interviewees across multiple perspectives allowed us to have a rich understanding of the Section 1115 SMI/SED waiver implementation experience from varied viewpoints.