CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES
CENTER FOR MEDICAID & CHIP SERVICES

State Demonstrations Group

FEB 1 6 2017

Dan Tsai
Assistant Secretary
Executive Office of Health and Human Services
One Ashburton Place
11th Floor
Boston, MA 02108

Dear Mr. Tsai:

This letter is to inform you that the following attachment to the Special Terms and Conditions (STCs) for Massachusetts' section 1115(a) demonstration, entitled "MassHealth" (11-W-00030/1) is approved as submitted by the state and as modified through our discussions.

- Public Hospital Transformation and Incentive Initiatives (PHTII) (Attachment K)

CMS finds this protocol to be in accordance with the STCs for the demonstration, and has no further questions or comments at this time.

A copy of the approved attachment is enclosed and will replace the corresponding attachment placeholder in the STCs.

We look forward to continuing to work with you on the MassHealth demonstration. If you have any questions, please contact your project officer Mr. Eli Greenfield at either 410-786-6157 or by email at Eli.Greenfield@cms.hhs.gov.

We appreciate your cooperation throughout the review process.

Sincerely,

Angela D. Garner
Director, Division of System Reform Demonstrations

Enclosure
cc: Richard McGreal, ARA Region I
       Julie McCarthy, Region I

ATTACHMENT K
PUBLIC HOSPITAL TRANSFORMATION AND INCENTIVE INITIATIVE PROTOCOL

I. PREFACE

1. **MassHealth Medicaid Section 1115 Demonstration Waiver**
    This Attachment K, Public Hospital Transformation and Incentive Initiatives (PHTII) Protocol, applies to the extension period of the Centers for Medicare & Medicaid Services (CMS) approved section 1115 demonstration waiver, entitled MassHealth (11-W-00030/1) (demonstration) from July 1, 2017 through June 30, 2022 (DY 21 through DY 25), as set forth in Attachment E and STC 56.

2. **Public Hospital Transformation and Incentive Initiatives (PHTII)**
    STC 56 of the demonstration authorizes the Commonwealth to implement the Public Hospital Transformation and Incentive Initiatives (PHTII) funded through the Safety Net Care Pool (SNCP).

    PHTII payments are intended to support the public hospital system for improvements in delivery systems and payment models that support the simultaneous pursuit of improving the experience of care, improving the health of populations, and reducing per capita costs of health care.

    The Public Hospital will be required to develop and implement initiatives and activities, and to achieve performance metrics, as described and approved in this PHTII Protocol in order to receive the incentive payments.

    In concert with the Commonwealth of Massachusetts' MassHealth transition from fee-for-service models into integrated accountable, total cost of care models in this demonstration, a defined portion of PHTII funding will be aligned with accountability for Medicaid Accountable Care Organization (ACO) performance accountability for the public hospital's MassHealth patient panel utilizing the Delivery System Reform Incentive Program (DSRIP) measures.

    In addition, PHTII transformation initiatives will include a focus on behavioral health integration initiatives as well as other approved initiatives that support the public hospital's ongoing transformation efforts to ensure high-quality health care services for the Medicaid and safety net populations it serves. These initiatives may include:

    a) Integration of Behavioral Health and Primary Care;
    b) Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions;
    c) Referral Management and Integrated Care Management;
    d) Evidence-Based Practices for Medical Management of Chronic Conditions; and/or
    e) Community Empowered Population Health Initiative (Not Selected).

    These initiatives may complement or enhance other federal initiatives in which a hospital may be participating, but they must not duplicate the exact same activities for which the public hospital receives specific funding by the U.S Department of Health and Human Services or any other state or federal funding source.

    Pursuant to STC 56, PHTII payments are not direct reimbursement or payment for services, should not be considered patient care revenue, will not be offset against other Medicaid reimbursements to a hospital system, and will not be counted as payments when calculating hospital-specific cost limits under the Safety Net Care Pool Uncompensated Care Cost Limit Protocol.

3. **PHTII Eligibility**
   STC 56 describes the eligibility for PHTII. Cambridge Public Health Commission d/b/a Cambridge Health Alliance (CHA) (hereby referred to as Public Hospital) is the only acute-care, non-federal, non-state Public Hospital in the Commonwealth and is eligible to earn PHTII payments outlined in Attachment E.

4. **PHTII Protocol**
   In accordance with STC 56, Attachment K governs PHTII initiatives, guidelines, structure, and evaluation processes for reporting for payment, as outlined in Section V.

   Following approval of the PHTII protocol by CMS and throughout the demonstration renewal period, the Massachusetts Executive Office of Health and Human Services (EOHHS) may propose revisions to the PHTII protocol, in collaboration with the Public Hospital, to reflect modifications to any component of the final approved protocol, including but not limited to initiatives, measures, metrics, and data sources or to account for other unforeseen circumstances in the implementation of the PHTII program. CMS must render a decision on proposed PHTII protocol revisions within 30 business days of submission by EOHHS. Such revisions must not require a waiver amendment, provided that they comport with all applicable STC requirements.

II. DESCRIPTION OF PHTII TRANSFORMATION FOCUS AREAS

5. **PHTII Focus Areas**
   A defined portion of PHTII funding will be aligned with accountability for Medicaid Accountable Care Organization (ACO) performance accountability for the Public Hospital's MassHealth patient panel utilizing the DSRIP measures. Because the Public Hospital relies on PHTII as an important component of its overall MassHealth funding structure, linking a portion of PHTII funding with these DSRIP performance measures will ensure full alignment across payment streams and focus on improving these outcomes.

   Other PHTII transformation initiatives will include a focus on behavioral health integration initiatives as well as other approved initiatives that support the Public Hospital system's ongoing transformation efforts to ensure high-quality health care services for the Medicaid and safety net populations it serves.

   Additional PHTII initiatives may include the following:

   a) Integration of Behavioral Health and Primary Care;
   b) Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions;
   c) Referral Management and Integrated Care Management;
   d) Evidence-Based Practices for Medical Management of Chronic Conditions; and/or
   e) Community Empowered Population Health Initiative (Not Selected).

   Integration of Behavioral Health and Primary Care
   To continue the advancement in integrated medical and behavioral health care in the context of population health management and alternative payment models, this initiative will leverage evidence-based practices to advance screening, treatment and improved access to behavioral health care based in the primary care setting for adults, children and adolescents. This suite of initiatives will include a focus on population health, quality outcomes, patient engagement and experience of care improvements, coordinated, cross continuum care, and effective care management and follow-up on targeted conditions including depression, anxiety, and substance use disorders. This will be enabled through the optimization of screening and follow-up workflows, expansion of evidence-based

treatment options, provider and staff training and engagement, building relationships among staff and providers across the system, and building community connections to support patient care.

Collaborative care, an evidence based delivery model involving a greater role of non-medical specialists to augment primary care and provide care management, has been shown to support the Triple Aim among patients with depression, the most prevalent mental disorder.[1,2] The key elements of collaborative care models include: the use of a mental health registry, stepped care approach to depression management (i.e. intensifying treatments when needed), use of validated instruments (such as the Patient Health Questionnaire (PHQ-2 or PHQ-9) for depression, Generalized Anxiety Disorder scale (GAD-7) for anxiety, National Institute on Alcohol Abuse and Alcoholism single item screening tool (NIAAA-1), Alcohol Use Disorders Test (AUDIT), National Institute on Drug Abuse quick screen test (NIDA-1) and the Drug Abuse Screening Test (DAST), and regular caseload consultations by the psychiatrist and the behavioral care manager. Additional elements of integration include the co-location of behavioral health staff (such as therapists and psychiatrists) into primary care, meetings held by primary care and behavioral health team members to discuss cases, training of primary care and behavioral health staff on effective screening and collaborative care, and strategies to address substance use disorder (such as SBIRT) in primary care.[3]

Findings from more than 80 studies demonstrated that collaborative care increased adherence to evidence-based depression treatment by twofold and improved outcomes, including in low-income populations.[4] Studies have also revealed value in terms of cost-effectiveness, cost-benefit analysis, and improved patient satisfaction with care.[5] Substance use and addiction are significant challenges for society and for public payer populations. Unidentified mental health and substance use treatment needs contribute to higher costs and poor health outcomes. A recent publication released by the Substance Abuse and Mental Health Services Administration reported that in Massachusetts, only 53.8 % of adults with any mental illness (approximately 522,000 individuals per year in 2010-2014) actually received mental health treatment within the prior year, and only 7.5% of those with alcohol abuse or dependence received treatment in the prior year.[6] Furthermore, the national problem of opioid use disorder and overdose is increasing year by year in Massachusetts.[7]

According to the American Academy of Pediatrics (AAP), behavioral and emotional problems during childhood are common, often undetected, and frequently untreated despite. Approximately 11% to 20% of children in the United States have a behavioral or emotional disorder at any given time.[8,9] Developmental and behavioral health disorders are now the top 5 chronic pediatric conditions causing

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[1] Institute for Clinical and Economic Review. March, 2015. Integrating Behavioral Health into Primary Care.

[2] Unützer J, Katon WJ, Williams JW, Callahan CM, Harpole L, Hunkeler EM, Hoffing M, Areán PA, Hegel MT, Schoenbaum M, Oishi SM, Langston CA. Improving primary care for depression in late life: the design of a multi-center randomized trial. Medical Care. 2001; 39:785-799.

[3] The Diamond Model is based on the Collaborative Care Model for depression by Wayne Katon, MD and the IMPACT Study by Jurgen Unutzer, MD as well as numerous other controlled trials from Institute for Clinical Systems Improvement and Minnesota Family Health Services presentation to the Institute for HealthCare Improvement Annual Forum, Dec 2010.

[4] Archer, Janine, et al. "Collaborative care for depression and anxiety problems." *The Cochrane Library* (2012).

[5] Katon WJ. "Collaborative Depression Care Models: From Development to Dissemination." American Journal of Preventive Medicine, 012;42(5):550–552.

[6] Substance Abuse and Mental Health Services Administration. *Behavioral Health Barometer: Massachusetts, 2015.* HHS Publication No. SMA-16-BARO-2015-MA. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

[7] http://www.mass.gov/eohhs/docs/dph/quality/drugcontrol/county-level-pmp/data-brief-overdose-deaths-may-2016.pdf

[8] Costello EJ, Mustillo S, Erkanli A, Keeler G, Angold A. Prevalence and development of psychiatric disorders in childhood and adolescence. *Arch Gen Psychiatry*. 2003;60(8):837–844

[9] *Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda.* Washington (DC): US Department of Health and Human Services; US Department of Health and Human Services; US Department of Education; US Department of Justice, 2000.

functional impairment.[10,11,12] The AAP urges clinicians to screen for developmental and behavioral problems at all health supervision visits using quality tools.[13] There is an opportunity to update routine, comprehensive screening for behavioral and developmental conditions in the child and adolescent population, using validated screening instruments such as the Survey of Wellbeing of Young Children (SWYC) for developmental screening, the Pediatric Symptom Checklist (PSC) and PHQ-9 for depression, and CRAFFT, a short clinical assessment tool for substance related risks and problems, and to develop the associated registries, analyze utilization patterns and service gaps, and optimize follow-up care according to the evidence base.[14]

Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions
Poor access to appropriate levels of care is a leading barrier to recovery for individuals with mental health and substance use (MHSU) conditions.[15] A comprehensive system for MHSU treatment – offering the right care to the right people at the right time – requires a wide range of services and delivery methods to meet the unique needs of individuals and families. Among others, these services include outpatient counseling (including primary care integration), intermediate care (intensive outpatient, partial hospital), residential and inpatient facilities, support for care transitions, and triage and emergency services. A robust continuum of care helps people access services when they need and want them, improving patient experience and the value of care (quality/cost). A comprehensive treatment system allows individuals and their providers to develop an optimal care plan most likely to help them stay connected to their communities, succeed in daily activities, such as work or school, and engage in family and community supports toward recovery. Individuals who do receive appropriate treatment early in their onset of illness may require less intensive care, experience fewer relapses,[16] and have better long-term health outcomes.[17] New programs offering integrated, person-centered MHSU care show promising results – greater use of community-based outpatient care, fewer hospital and emergency department (ED) admissions, and better health outcomes.[18-19]

However, left untreated, behavioral health disorders and co-occurring health conditions have harmful economic, interpersonal, and social impacts for the population as a whole.[20] This troubling impact is most evident in the 20 to 30 year gap in life expectancy among people living with serious mental

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[10]Slomski, A. Chronic Mental Health Issues in Children Now Loom Larger Than Physical Problems *JAMA. 2012;308(3):223-225.*
[11]Halfon N, Houtrow A, Larson K, Newacheck PW. The changing landscape of disability in childhood. *Future Child.* 2012;22(1):13–42
[12]Promoting Optimal Development: Screening for Behavioral and Emotional Problems. Carol Weitzman, Lynn Wegner, the Section on Developmental and Behavioral Pediatrics, Committee on Psychosocial Aspects of Child and Family Health, Council on Early Childhood and Society for Develop Mental and Behavioral Pediatrics. *Pediatrics* Feb 2015, 135 (2) 384-395.
[13]Identifying Infants and Young Children With Developmental Disorders in the Medical Home: An Algorithm for Developmental Surveillance and Screening Council on Children With Disabilities, Section on Developmental Behavioral Pediatrics, Bright Futures Steering Committee, Medical Home Initiatives for Children With Special Needs Project Advisory Committee *Pediatrics* Jul 2006, 118 (1) 405-420.
[14]Massachusetts Department of Public Health Bureau of Substance Abuse Services. Provider Guide: Adolescent Screening, Brief Intervention, and Referral to Treatment Using the CRAFFT Screening Tool. Boston, MA. Massachusetts Department of Public Health, 2009.
[15]American Hospital Association, Trendwatch, Bringing Behavioral Health into the Care Continuum, Opportunities to Improve, January 2012. Available at: http://www.aha.org/research/reports/tw/12jan-tw-behavhealth.pdf.
[16]Institute of Medicine (US) Committee on Quality Assurance and Accreditation Guidelines for Managed Behavioral Health Care; Edmunds M, Frank R, Hogan M, et al., editors. Managing Managed Care: Quality Improvement in Behavioral Health. Washington (DC): National Academies Press (US); 1997. Available from: http://www.ncbi.nlm.nih.gov/books/NBK233235/
[17]Kane JM, Robinson DG, Schooler NR, et al. Comprehensive versus usual community care for first-episode psychosis: 2-year outcomes from the NIMH RAISE early treatment program. Am J Psychiatry 2016; 173:362–372.
[18]Krupski A, West II, Scharf DM, et al. Integrating primary care into community mental health centers: Impact on utilization and costs of health care. Psychiatric Services in Advance. 2016:1-7. doi: 10.1176/appi.ps.201500424.
[19]Gilmer TP, Henwood BF, Goode M, et al. Implementation of integrated health homes and health outcomes for persons with serious mental illness in Los Angeles County. Psychiatric Services in Advance. 2016:1-6. doi: 10.1176/appi.ps.201500092.
[20]American Hospital Association, Trendwatch, Bringing Behavioral Health into the Care Continuum, Opportunities to Improve, January 2012. Available at: http://www.aha.org/research/reports/tw/12jan-tw-behavhealth.pdf.

illnesses (SMI).[21-22] This disparity is driven by higher rates of chronic disease (e.g. diabetes, hypertension, hyperlipidemia, and obesity), delayed diagnosis and treatment of medical conditions,[23] fragmented delivery of care, medication side effects,[24] and higher rates of modifiable risk factors.[25] On average, 4.2 percent of Massachusetts residents are living with SMI and 10 percent have a SUD.[26] Among adults who access mental health care, 30 percent still report unmet needs, and more than one-third of those treated in the state's public mental health system say it has not improved their functioning.[27]

Massachusetts' MHSU service gaps are due in part to shortages across the entire care continuum, from outpatient care to emergency services, inpatient beds, partial hospital programs, crisis stabilization units, detoxification, residential programs, and so on. This can result in sub-optimal wait times for outpatient therapy; extended hospitalizations due to lack of community-based services; and "boarding" in emergency departments (ED) as people await transfer to intermediate or acute care. Massachusetts faces an opioid use epidemic that has doubled the rate of overdose deaths from 2012 to 2015[28], and the need is growing exponentially for expanded Medication-Assisted Treatment (MAT) and evidence-based outpatient care for SUD. Expansion of services in areas that are most lacking, particularly in the intermediate care levels that provide step-down and diversionary services, will assist in shifting care away from more intensive levels and providing care at the appropriate level. Enhancement of treatment modalities will be explored that promote greater efficiency and create capacity within existing services, such as shorter term evidence-based treatments and technology-based services such as telemedicine consultations. Patient care teams may be redefined to include clinicians, paraprofessionals, peer specialists/coaches, community-based providers, social support providers, etc., with the patient at the center of the team.

A substantial portion of the public care system for individuals with the most disabling conditions extends beyond health care services to rehabilitative and support services, including housing, job counseling, literacy, and other programs. Poor linkage and fractured funding impedes the ability to provide access to these services in a coordinated and integrated way.[29] One strategy is the formalization of agreements between healthcare providers and community-based providers who offer complementary services, and providing integrated population case management. A focus on health promotion is essential to impact health outcomes for this population, as a national study estimated 85 percent of the life expectancy gap for people living with schizophrenia was attributable to "natural" causes, such as cardiovascular disease, cancers, pneumonia, and diabetes.[30] Early screening and

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[21]Druss BG, Zhao L, Von Esenwein S, Morrato EH, Marcus SC. Understanding excess mortality in persons with mental illness: 17-year follow up of a nationally representative US survey. Med. Care. Jun 2011;49(6):599-604.

[22]Colton CW, Manderscheid, RW. Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. Preventing Chronic Disease. 2006;3(2):1-14.

[23]Nasrallah HA, Meyer JM, Goff DC, et al. Low reates of treatment for hypertension, dyslipidemia and diabetes in schizophrenia: Data from the CATIE schizophrenia trial sample at baseline. Schizophrenia Research. 2006;86(1-3):15-2.

[24]Meyer JM, Davis VG, Goff DC, et al. Change in Metabolic Syndrome Parameters with Antipsychotic Treatment in the CATIE Schizophrenia Trial: Prospective Data from Phase 1. Schizophr. Res. 2008;101(1-3):273-286.

[25]SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008-2010.

[26]Substance Abuse and Mental Health Services Administration (SAMHSA). Behavioral Health Barometer: Massachusetts, 2015. HHS Publication No. SMA–16–Baro–2015–MA. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

[27]Colton CW, Manderscheid, RW. Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. Preventing Chronic Disease. 2006;3(2):1-14.

[28]Massachusetts Department of Public Health. Data Brief: Opioid-related Overdose Deaths Among Massachusetts Residents. May 2016. Available at: http://www.mass.gov/eohhs/docs/dph/quality/drugcontrol/county-level-pmp/data-brief-overdose-deaths-may-2016.pdf.

[29]Institute of Medicine (US) Committee on Quality Assurance and Accreditation Guidelines for Managed Behavioral Health Care; Edmunds M, Frank R, Hogan M, et al., editors. Managing Managed Care: Quality Improvement in Behavioral Health. Washington (DC): National Academies Press (US); 1997. Available from: http://www.ncbi.nlm.nih.gov/books/NBK233235/

[30]Kane JM, Robinson DG, Schooler NR, et al. Comprehensive versus usual community care for first-episode psychosis: 2-year outcomes from the NIMH RAISE early treatment program. Am J Psychiatry 2016; 173:362–372.

intervention for medical conditions is essential, particularly for patients taking antipsychotic medications that increase the risk for certain medical conditions, most notably metabolic syndrome. Modifiable factors such as smoking, diet, physical activity, substance use, and social needs are key drivers that can be addressed through promoting healthy living through education, skills training, and behavioral therapy.[31-32]

Referral Management and Integrated Care Management
Toward the goals of better health and optimal, more coordinated and cost-effective care, this suite of initiatives is aimed at increasing patient access to high-quality care, promote appropriate referrals and access (i.e. the right provider in the right setting) based on the complexity of the patient's needs. Providing integrated care across the continuum of care through effective referral management and care coordination is foundational to the accountable care model and alternative payment arrangements with quality, cost and health care utilization accountability. This is particularly important for Medicaid and other vulnerable patient populations that often face barriers to care and care fragmentation. This initiative builds and supports systems to maintain a preferred, high value network and simultaneously provide highly coordinated and quality care in four ways: focus on public hospital system access and effective operational improvements in primary care and medical, surgical and behavioral health specialties, encourage public hospital referrals and the use of care within the public hospital system and with clearly defined high value preferred provider networks enabled to coordinate care and redirect referrals from higher cost, lower-value external referrals, build relationships with key community-based partners such as visiting nurse associations (VNAs), skilled nursing facilities (SNFs), and detoxification facilities, and leverage proven technology to improve access and convenience for the patient panel to specialty opinions and care. The Massachusetts Office of the Attorney General's report published in September 2015 found wide variation in the prices health insurance companies pay providers for similar services, unexplained by differences in quality, complexity of services, or other common measures of consumer value. The report found that higher priced providers are drawing patient volume from lower priced providers, which increases costs as care is shifted from less expensive settings to more expensive settings. Referral networks comprised of high value providers are an opportunity to address this.

In addition, this initiative will refine emergency department (ED) and inpatient case management capabilities to offer alternative treatment modalities and community-based care to patients. This initiative will expand e-consults beyond tele-dermatology in order to increase access to consultations with specialists, reducing cost and enabling more capacity for face-to-face visits when appropriate. This initiative may focus on facilitating transportation to in-network care providers for patients who lack transportation by utilizing a non-medical transportation support service. Convenience and effectiveness also drives efforts to examine text-messaging in care management.

Evidence-Based Practices for Medical Management of Chronic Conditions
Evidence based medicine (EBM) is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The goal is to improve outcomes, quality, and cost by reducing the variation of care for key conditions and integrate EBM into the health care delivery system across the continuum. Variation of care was outlined in the 2010 Dartmouth Institute's reflections on geographic variations; however, similar variations in care may also be observed within health care systems and practices, acknowledging natural differences between patients. Safer, higher-quality care, redesigned systems of care that integrate the use of

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[31]Bartels S, Desilets R. Health Promotion Programs for People with Serious Mental Illness (Prepared by the Dartmouth Health Promotion Research Team). Washington, DC. SAMHSA-HRSA Center for Integrated Health Solutions. Jan 2012.
[32]Bruins J, Jorg F, Bruggeman R, Slooff C, Corpeleijn E, et al. (2014) The Effects of Lifestyle Interventions on (Long-Term) Weight Management, Cardiometabolic Risk and Depressive Symptoms in People with Psychotic Disorders: A MetaAnalysis. PLoS ONE, 2014; 9(12); 1-20.

information technology can best support clinical and administrative processes to adopt EBM and improve patient outcomes.

Efforts to change the culture of medical practice to adopt EBM include education on recommendations from peer-reviewed groups such as Cochrane or the U.S. Preventive Services Task Force (USPTF), integration of EBM into clinical activities via clinical decision support (CDS) for chronic conditions and prevention, and the application of population health data to prioritize and subsequently develop systems to close quality gaps. Planned future initiatives build on capabilities to develop and use population health databases, risk stratify patients, and help connect the most costly and vulnerable patients with complex care management, transitional facilitators, and palliative care services. Medical management programs aim to develop and implement evidence-based clinical guidelines for populations of patients with particular conditions to ensure the right care at the right time in the right context and produce optimal outcomes for quality, safety, cost, and experience. Efforts may focus on improving care and reducing cost for populations of patients with five conditions: chronic obstructive pulmonary disease; congestive heart failure; hypertension; diabetes; and pediatric asthma.

Evidence-based patient engagement strategies may include those such as motivational interviewing in chronic health conditions and for substance use disorders, expansion of nursing, pharmacist, and other care team member roles in chronic disease management, and mental health team integration within primary care. Initiatives may include refining tools, frameworks, analytics, and clinical workforce development in the use of evidence-based guidelines across the care continuum.

Community Empowered Population Health Initiative
In recognition that social, behavioral, and environmental factors account for 70% of what it takes to stay healthy while only 10% are attributable to direct medical care, this initiative will build and support systems to address social determinants of health (SDH) and address health disparities in patients with chronic conditions.[33] According to the Institute of Medicine, "an aligned system with a strong interface among public health, health care, and the community and non-health sectors could produce better prevention and treatment outcomes for populations living with chronic illness."[34] Healthy People 2020 highlights the importance of addressing the social determinants of health by including "create social and physical environments that promote good health for all" as one of the four overarching goals for the decade.[35] Based on emerging evidence that addressing social needs through enhanced clinical-community linkages can improve health outcomes and reduce costs, CMS has prioritized addressing SDH through the Accountable Health Communities model to address critical gaps between clinical care and community services.[36] The initiative also recognizes that health disparities have persisted for families and communities that have systematically experienced social and economic disadvantage and consequently face greater obstacles to optimal health.[37,38]

Improving SDH and health disparities requires supporting communities in addressing their health needs, implementing screening and referral processes to social service agencies and building programs that identify and address health disparities. Community health improvement teams will work with community based organizations and governmental entities to support their efforts to improve community health. Clinical and community health improvement teams will work together

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[33]McGinnis et al. The Case for More Active Policy Attention to Health Promotion. Health Affairs 2002: 21(2); 78-93

[34]IOM. Living well with chronic illness: a call for public health action. Washington, DC: The National Academies Press; 2012

[35]Healthy People 2020. https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health

[36]Alley DE, et al. Accountable Health Communities — Addressing Social Needs through Medicare and Medicaid. N Engl J Med 2016; 374:8-11.

[37]CMS. CMS Equity Plan for Improving Quality in Medicare. Sept 2015. https://www.cms.gov/About-CMS/Agency-Information/OMH/OMH_Dwnld-CMS_EquityPlanforMedicare_090615.pdf

[38]CMS. https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/quality-of-care-health-disparities.html

to screen for SDH, refer patients with social needs to existing community services, and rescreen patients with social needs. Clinical and community health improvement teams will also work closely to identify populations with disproportionately higher rates of poor control of chronic health conditions, monitor and improve their care through ensuring they receive interventions such as education, outreach, and linkage to primary, specialty and other ambulatory care services.

III. PROPOSED PUBLIC HOSPITAL TRANSFORMATION AND INCENTIVE INITIATIVES

6. **Public Hospital Transformation and Incentive Initiatives**
   The Public Hospital must implement PHTII initiatives approved by EOHHS and CMS that are outlined within this protocol and that meet all requirements pursuant to STC 56, and all requirements set forth in Section III.

7. **Minimum Number of Initiatives**
   The Public Hospital must select a minimum of four initiatives and no more than five initiatives in total for PHTII, in addition to the portion of PHTII funding linked to DSRIP performance accountability for the Public Hospital's attributed primary care panel within an ACO. Cambridge Health Alliance has selected four initiative areas 1 – 4 and corresponding Measure Slates 1 – 4 and 6.

8. **Public Hospital PHTII Initiative Toolkit**
   Section VIII, paragraph 23 includes the menu of PHTII Initiatives and corresponding outcomes and improvement Measure Slates from which an eligible public hospital may select. Each initiative description includes:

   a. Rationale for the proposed initiative (evidence base and reasoning behind initiative idea);
   b. Goals and objectives for the initiative (initiative-specific Triple Aim goals and expected initiative outcomes);
   c. Core components or key activities to guide initiative development and implementation;
      i. The core components for the initiatives are not required. However, most will be necessary to achieve the required results. The core components provide a guide for how the initiatives are implemented by the public hospital.
   d. Measure Slates required for the initiative, including clinical event outcomes and other specified outcomes and improvement measures.
      i. The PHTII funding at risk for improved performance on outcomes and improvement indicators will be spread among four (4) Measure Slates associated with ongoing transformation efforts to ensure high-quality health care services for the Medicaid and safety net populations. Each Measure Slate is a list of outcomes and improvement indicators for which the Public Hospital must successfully achieve defined metrics for a specified number of the indicators on the list within each specified demonstration year.
      ii. Each Measure Slate is designed specifically for a PHTII initiative. For the purposes of the at-risk funding for improved performance on outcomes and improvement indicators, the Measure Slates for PHTII initiatives are as follows:

         (a) Measure Slate 1 – Integration of Behavioral Health (BH) and Primary Care Initiatives
         (b) Measure Slate 2 – Comprehensive Systems for Treating Mental Health and Substance Use Conditions
         (c) Measure Slate 3 – Referral Management Initiatives and Integrated Care Management
         (d) Measure Slate 4 – Evidence-Based Practices for Medical Management of Chronic Conditions
         (e) Measure Slate 5 – Community Empowered Population Health Initiative (Not Selected).

iii. A specified number of outcomes and improvement indicators will need to be achieved in each DY, according to the table below.

The Public Hospital receives payment when a measure is individually achieved and reported, up to the established number of outcomes and improvement indicators assigned funding in a given demonstration year. For example in Measure Slate 2 in DY 22, if the Public Hospital achieves 4 indicators (out of the defined number for that year which is set at 5 indicators), the public hospital will be paid for those 4 indicators during that demonstration year. However, if the Public Hospital achieves a greater number than the defined number of improvement indicators established for a given year (for example, 6 indicators compared to the defined number established at 5 indicators), the Public Hospital will only be paid for the first 5 indicators that it achieves on that Measure Slate during that demonstration year.

	DY21	DY22	DY23	DY24	DY25
Measure Slate 1	Achieve 2 of 4 Indicator Goals	Achieve 4 of 11 Indicator Goals	Achieve 5 of 11 Indicator Goals	Achieve 6 of 11 Indicator Goals	Achieve 7 of 11 Indicator Goals
Measure Slate 2	Achieve 2 of 5 Indicator Goals	Achieve 5 of 13 Indicator Goals	Achieve 7 of 13 Indicator Goals	Achieve 8 of 13 Indicator Goals	Achieve 8 of 13 Indicator Goals
Measure Slate 3	Achieve 2 of 5 Indicator Goals	Achieve 4 of 10 Indicator Goals	Achieve 7 of 13 Indicator Goals	Achieve 6 of 10 Indicator Goals	Achieve 8 of 13 Indicator Goals
Measure Slate 4	Achieve 2 of 3 Indicator Goals	Achieve 4 of 13 Indicator Goals	Achieve 7 of 13 Indicator Goals	Achieve 8 of 13 Indicator Goals	Achieve 8 of 13 Indicator Goals
Measure Slate 5	N/A (Not Selected)	Achieve 3 of 9 Indicator Goals (Not Selected)	Achieve 5 of 9 Indicator Goals (Not Selected)	Achieve 5 of 9 Indicator Goals (Not Selected)	Achieve 6 of 9 Indicator Goals (Not Selected)

iv. The Public Hospital is not required to pre-determine which outcomes and improvement indicators will be achieved in terms of performance goals in each year; instead, the Public Hospital must achieve the established performance goals for the specified number of outcomes and improvement indicators applicable to a demonstration year, which are individually payable when an indicator is individually achieved and reported up to the established number of outcomes and improvement indicators assigned funding in that demonstration year. Beginning in DY23, for each of the Measure Slates 1 – 5, at least 2 measures are required to continue achievement from the year immediately previous. A description of the funding allocation for the at-risk outcomes and improvement indicators can be found in Section VI, paragraph 18. Updates to technical specifications of outcomes and improvement measures in Measures Slates 1 – 5 shall not require a protocol modification and can be implemented by the Commonwealth without further approval.

e. Pay-for-Reporting Measure Slate
   Measure Slate 6 reflects Population-Wide Public Health Measures. Measure Slate 6 will be Pay-for-Reporting for DYs 21 – 25.

	DY21	DY22	DY23	DY24	DY25
Measure Slate 6	Pay-for-Reporting	Pay-for-Reporting	Pay-for-Reporting	Pay-for-Reporting	Pay-for-Reporting

A description of the funding allocation for the pay-for-reporting measure slate can be found in Section VI, paragraph 18.

9. **Medicaid ACO Performance Accountability for Public Hospital's MassHealth Panel**
   The public hospital will report on measures associated with Medicaid Accountable Care Organization (ACO) performance accountability for the Public Hospital's MassHealth patient panel utilizing the DSRIP measures.

IV. NON-FEDERAL SHARE OF PHTII PAYMENTS AND ALIGNED MASSHEALTH ACO PERFORMANCE ACCOUNTABILITY FUNDS INCORPORATED INTO PHTII FUNDING STREAM

11. **Identification of Allowable Funding Sources**

    a. Allowable Funding Sources
       Allowable funding sources for the non-federal share of PHTII payments must include all sources authorized under Title XIX and federal regulations promulgated thereunder.

       i. The source of non-federal share of DYs 21 – 25 PHTII payments to the Public Hospital will be an intergovernmental funds transfer. The Executive Office of Health and Human Services (EOHHS) will issue a request to the Public Hospital for an intergovernmental transfer in the amount of the non-federal share of the applicable incentive payment amounts at least 15 days prior to the scheduled date of payment. The Public Hospital will make an intergovernmental transfer of its funds to EOHHS in the amount specified by a mutually agreed timeline determined by EOHHS in consultation with the Public Hospital, and in accordance with the terms of an executed payment and funding agreement, and all applicable laws. Upon receipt of the intergovernmental transfer, EOHHS will draw the federal funding and pay both the nonfederal and federal shares of the applicable DYs 21 – 25 payment(s) to the Public Hospital according to a mutually agreed upon timeline determined by EOHHS in the consultation with the Public Hospital, and subject to state legislative appropriation and availability of funds, the terms of a payment and funding agreement, and all necessary approvals.

    b. Change in Funding Source
       If the source of non-federal share of PHTII payments changes during the renewal period, EOHHS must notify CMS and seek CMS' approval of such change prior to claiming FFP for any payment utilizing such funding source. No waiver amendment is required.

V. PHTII REPORTING AND PAYMENT IN DYs 21 – 25

12. **PHTII Initiatives and Measure Slate 1 – 6**
    Three times per year, the Public Hospital seeking payment under PHTII must submit reports to the Commonwealth demonstrating progress on PHTII initiatives that the Public Hospital has selected pursuant to paragraph 7. The Commonwealth must provide such reports to the assigned independent assessor. The reports must be submitted using the standardized reporting form approved by EOHHS. The reports must include the incentive payment amount being requested for the progress achieved on PHTII initiative activities in accordance with payment mechanics (see Section VI). The report must include data on the progress with the initiative and must provide a narrative description of the progress made. The reports must contain sufficient data and documentation to allow CMS, the state, and the independent assessor to determine if the hospital is achieving progress with the initiative. The hospital system must have available for review by the Commonwealth or CMS, upon request, all

supporting data and back-up documentation. These reports will be due as indicated below after the end of each reporting period:

a. Reporting period of July 1 through October 31: the report and request for payment is due November 30.
b. Reporting period of November 1 through February 28/29: the report and request for payment is due March 31.
c. Reporting period of March 1 to June 30: the report and request for payment is due July 31. The Commonwealth may permit the reporting for payment of specified outcomes measures subsequent to the July 31 reports for each demonstration year in recognition that additional time may be needed for necessary data to be available.

These reports will serve as the basis for authorizing incentive payments to the Public Hospital. The actual payment amounts will be determined by EOHHS in accordance with the provisions of Section VI. EOHHS will schedule the payment transaction for the hospital within 30 days following EOHHS approval of the hospital report, subject to state legislative appropriation and availability of funding, execution of a payment agreement provided by EOHHS, and all necessary approvals. The state must inform CMS of the funding of PHTII payments to the provider through a quarterly payment report to be submitted to CMS within 60 days after the end of each quarter.

An independent assessor will review each report, to ensure accurate reporting of the hospital's achievement, and make recommendations to the state regarding approvals, denials or recommended changes in order to approve payment. EOHHS will provide final approval of all PHTII payments. The hospital must be allowed an opportunity to respond to, and correct, any recommendation for denial of payment, for a metric that the hospital believes it achieved, through the resubmission of required clarifications and/or data.

13. **MassHealth DSRIP Performance Accountability for Public Hospital's MassHealth Panel**
The public hospital will also follow the reporting process as defined by EOHHS for the Medicaid DSRIP performance accountability measures for the Public Hospital's MassHealth panel.

Generally, EOHHS will make payments to the Public Hospital for the DSRIP performance measures at the same time as it makes payments associated with the Public Hospital's third annual reporting cycle, as described in paragraph 12c above. However, if any DSRIP performance measures or domains are completed and approved by EOHHS pursuant to the DSRIP process at another time during the year, EOHHS shall make payments to the Public Hospital in the most proximate report for payment. For DSRIP performance measures that may rely on claims and/or other lagged sources of data administered by MassHealth, EOHHS shall make estimated payments to the Public Hospital, which shall be subject to final reconciliation outlined in this paragraph and paragraph 14 below. If it is determined that the progress by the Public Hospital had not been achieved as calculated in the estimated payment and that such progress would have resulted in a lower payment amount, the Public Hospital will be required to re-pay the federal portion of the overpayment amount. If the review determines that actual progress exceeded the estimate and the estimated payment amount, then the Public Hospital will be able to receive the appropriate additional payment in conjunction with the intergovernmental transfer process outlined in Section IV, paragraph 11.

14. **Year-end Payment Reconciliation**
Based on its review and verification of the Public Hospital's third annual report for payment, EOHHS will perform reconciliation as an additional check to verify that all PHTII payments made to the hospital were correct. If, after the reconciliation process EOHHS determines that the hospital was overpaid, the overpayment will be properly credited to the Commonwealth and the federal government or will be withheld from the next PHTII payment for the hospital, as determined by

EOHHS. If, after the reconciliation process EOHHS determines that the hospital was underpaid, then subject to state legislative appropriation and availability of funds, the terms of a payment and funding agreement, and all necessary approvals, EOHHS will schedule necessary payment transaction(s), or will add the additional amount to the next PHTII payment for the hospital, as determined by EOHHS.

15. **Commonwealth Reporting to CMS in DYs 21 – 25**
PHTII will be a component of the Commonwealth's quarterly operational reports and annual reports related to the demonstration. These reports will include:

   a. All PHTII payments made to the specific hospital that occurred in the quarter;
   b. Expenditure projections reflecting the expected pace of future disbursements for the participating hospital;
   c. An assessment by summarizing the hospital's PHTII activities during the given period; and
   d. Evaluation activities and interim findings of the evaluation design.

16. **Claiming Federal Financial Participation**
The Commonwealth will claim federal financial participation (FFP) for PHTII incentive payments on the CMS 64.9 waiver form on a quarterly basis, using a specific waiver group set up exclusively for PHTII payments. FFP will be available only for PHTII payments made in accordance with all pertinent STCs and the stipulations of this master PHTII plan, including Section VI. The Commonwealth and the hospital system receiving PHTII payment must have available for review by CMS, upon request, all supporting data and back-up documentation. FFP will be available only for payments related to activities listed in the approved PHTII protocol.

VI. DISBURSEMENT OF PHTII FUNDS

17. **PHTII Incentive Payments**

   a. Eligibility for PHTII Incentive Payments
   PHTII payments for the Public Hospital are contingent on that provider reporting progress on the PHTII initiatives and achieving performance for at risk outcomes and improvement measures as defined in the approved protocol. As outlined in Sections V and VI of the PHTII protocol, the hospital will be able to receive PHTII incentive payments related to approval of the required reports for payment. PHTII incentive payments may equal but not exceed the allotment outlined in Attachment E.

   b. DYs 21 – 25 PHTII Payments
   In DYs 21 – 25, PHTII funds will be available as incentive payments to the Public Hospital based on successfully executing and reporting on approved PHTII initiatives. The Public Hospital shall be eligible to receive the full amount of PHTII Initiatives Progress Reporting and Measure Slate 6 Reporting funding for successful completion of the progress reporting requirements during the first and second reports for payment, as specified in paragraph 12.

   c. Funding At Risk for Outcomes and Improvement
   Inclusive of the funding allotted to PHTII Outcomes and Improvement Measure Slates and MassHealth DSRIP performance accountability measures, the percentage of PHTII funding at risk for improved performance on outcomes and improvement indicators will gradually increase from 15 percent in DY 21 to 30 percent in DY 25.

18. **PHTII Funding Allocation Formula**

The following chart depicts the percentage and dollar amount of total PHTII funds available per demonstration year for PHTII initiatives and the at-risk amounts for performance on the outcome and quality indicators.

	MassHealth DSRIP Performance Accountability for Public Hospital's MassHealth Panel		PHTII At-Risk Measure Slates 1 – 4 Outcomes and Improvement Indicators		PHTII Initiatives Progress Reporting and Measure Slate 6 Reporting		Total
DY 21	5%	$15.45M	10%	$30.9M	85%	$262.65M	$309M
DY 22	5%	$12.15M	10%	$24.3M	85%	$206.55M	$243M
DY 23	10%	$10M	10%	$10M	80%	$80M	$100M
DY 24	15%	$15M	10%	$10M	75%	$75M	$100M
DY 25	20%	$20M	10%	$10M	70%	$70M	$100M

a. Funding for MassHealth DSRIP Performance Accountability for Public Hospital's MassHealth Panel
   In DY 21, 5% of total PHTII funds are available as incentive payments for meeting all qualification criteria for and participating in one of MassHealth's ACO models for the Public Hospital's MassHealth primary care patient panel. The funding allocation available for successful performance on MassHealth DSRIP performance accountability measures for the Public Hospital's MassHealth primary care patient panel members is 5% in DY 22, 10% in DY 23, 15% in DY 24, and 20% in DY 25.

b. Funding Allocation for PHTII At Risk Outcomes and Improvement Indicators
   The amount of funding at risk for performance on the outcome and improvement indicators will be 10% of the total annual PHTII funding in DYs 21 – 25. Payment for performance on these outcome milestones will be based on an objective demonstration of improvement using a valid, standardized method, outlined in Section VI, paragraph 19. The defined number of outcome and improvement indicators targeted for achievement in a given demonstration year have an annual base value that is uniform across all indicators within a specific Measure Slate 1 – 5 during a given demonstration year. The annual outcomes and improvement indicator value related to each of the applicable initiatives (Measure Slates 1 – 5) is calculated by dividing the annual total available amount of PHTII outcomes and improvement indicator funds by the number of applicable initiatives for a given year.

	DY 21	DY 22	DY 23	DY 24	DY 25
Measure Slate 1	$7.725M	$6.075M	$2.5M	$2.5M	$2.5M
Measure Slate 2	$7.725M	$6.075M	$2.5M	$2.5M	$2.5M
Measure Slate 3	$7.725M	$6.075M	$2.5M	$2.5M	$2.5M
Measure Slate 4	$7.725M	$6.075M	$2.5M	$2.5M	$2.5M
Measure Slate 5	Not Selected	Not Selected	Not Selected	Not Selected	Not Selected

| Total | $30.90M | $24.30M | $10.00M | $10.00M | $10.00M |

The PHTII at-risk outcomes and improvement indicator funds will be earned by Measure Slate based on the individual achievement of established performance goals for the specified number of indicators for each respective measure slate as outlined in Section III, paragraph 8. For each Measure Slate, the available funds are divided by the established number of measures specified for achievement during a given demonstration year. Payment will be made to the Public Hospital when a measure is individually achieved and reported, up to the established number of measures assigned funding in a given demonstration year.

c. Funding Allocation for PHTII Initiatives and Measure Slate 6
In DY 21, 85% of total PHTII funds are available as incentive payments for successful achievement of progress reporting on PHTII initiative activities as described in Section V, paragraph 12. The funding allocation available for PHTII initiatives is 85% in DY 22, 80% in DY 23, 75% in DY 24, and 70% in DY 25.

Of such annual PHTII funds available for successful achievement of reporting initiative activities in DYs 21 – 25, five percent of such annual initiative metric funding is associated with Measure Slate 6 (Population-Wide Public Health Measures), which is pay-for-reporting throughout the demonstration. The table below specifies the annual base values for PHTII initiatives and Measure Slate 6.

	DY 21	DY 22	DY 23	DY 24	DY 25
PHTII Initiatives Progress Reporting	$249.52M	$196.22M	$76.00M	$71.25M	$66.50M
Measure Slate 6	$13.1325M	$10.3275M	$4.00M	$3.75M	$3.50M
Total PHTII Initiatives Progress Reporting and Measure Slate 6	$262.65M	$206.55M	$80.00M	$75.00M	$70.00M

19. PHTII Improvement Measurement Approach

As stated in Section V, paragraph 12 of this attachment, the Public Hospital will report outcomes and improvement indicators related to PHTII Initiatives (Measure Slates 1 – 4). The public hospital will also follow the reporting process as defined by EOHHS for the Medicaid DSRIP performance accountability measures for the Public Hospital's attributed panel, outlined in paragraph 13.

a. PHTII Measure Slates 1 – 5
In order to receive funding for Measure Slates 1 – 5, the Public Hospital must achieve established performance goals for a specified number of indicators which are individually payable when an indicator is individually achieved and reported up to the established number of outcomes and improvement indicators assigned funding in a given demonstration year, as described in Section III, paragraph 8. Payment-for-performance on the outcomes and improvement indicators on the Measure Slates will be based on an objective demonstration of improvement over baseline or achievement of established performance thresholds using a valid, standardized method, as described below.

The following is the PHTII Measure Slate 1 – 5 payment framework for outcomes and improvement indicators.

    i.   DY 21 - 25 – This is pay-for-performance for designated measures.
        (a) The Public Hospital must achieve established performance goals for the specified number of indicators for the demonstration year, as outlined in Section III, paragraph 8.
        (b) Baselines will also be reported for designated measures in specified demonstration years.

    ii. In the event that the Public Hospital meets the specified performance benchmark in a particular demonstration year, the organization must maintain performance at or above the benchmark in the remaining demonstration years. Variation in performance is acceptable as long as the performance for each demonstration year is at or better than benchmark in this case. Beginning in DY22, the Public Hospital would also be required to achieve at least one measure in each measure slate for which it did not meet or exceed the benchmark in the previous year.

    iii. The Public Hospital must have a target for outcome and quality improvement indicators in Measure Slates 1 – 5. The specified targets will be used to determine whether or not success is achieved on the associated outcomes or improvement indicator. Measure Slate 6 is pay-for-reporting only on population-wide public health measures, and is not included in the at-risk funding for outcomes and improvement indicators, as described in Section VI, paragraph 18.

    iv. The following is a guiding hierarchy for the selection of improvement benchmarks or targets for outcomes and improvement indicators on Measure Slates 1 – 5. All performance targets are set forward in this protocol for Measure Slates 1 – 5 and will be in place for the entire demonstration period.
        (a) Select the latest available 90th percentile Massachusetts Medicaid at the time of protocol development. For CMS core inpatient measures and other inpatient measures, utilize available Massachusetts performance data.
        (b) If above is not available, select the latest available 90th percentile National Medicaid data at the time of protocol development. For CMS core inpatient measures and other inpatient measures, utilize available National performance data.
        (c) If above is not available, select other available benchmark (such as other latest available National benchmark) or hospital-defined target at the time of protocol development. If above is not available or if the specific measure is more appropriate to improvement over hospital baseline (such as non-risk adjusted or utilization improvement measures), any improvement over DY21/SFY18 hospital baseline will be the improvement measurement method or as specified.

    v.   Outcomes and Improvement Indicators Classifications for Measure Slates 1 – 5
        (a) Outcomes and improvement indicators will be classified into the following groups: (i) Clinical care delivery improvement measures; (ii) Clinical outcomes measures; and (iii) other delivery/outcomes measures where there is not a standardized benchmark and/or if the specific measure is more appropriate to improvement over hospital baseline.
            (i) Clinical care delivery improvement measures quantify a performance exhibited by clinical care practices, such as health screenings, and therefore are usually directly observable and can be directly impacted. In general, these metrics fit with a gap-to-goal methodology. All metrics classified as clinical care delivery measures must have an acceptable benchmark. To meet the threshold for success, the Public Hospital must achieve closure of 10% of the difference between the Public Hospital's baseline performance and the established benchmark or maintain at or above the benchmark. Each subsequent year would continue to be set with a target using the most recent year's data, unless otherwise specified.

$$\text{Performance Year} - \text{Baseline} \geq (\text{Benchmark} - \text{Baseline}) * 10\%$$

An example of a clinical care delivery measure is influenza immunization (NQF 0041).

(ii) Clinical outcome measures are metrics influenced by patient case mix, multiple processes, and environmental factors. In general, these metrics fit with a gap-to-goal methodology, depending on the availability of performance benchmarks. Since improvement on outcomes measures requires considerable amounts of resources and time and is dependent on foundational care delivery improvements and patient factors, closure of 10% of the difference between the Public Hospital's baseline performance and the established benchmark is included, unless otherwise specified. To meet the threshold for success, the Public Hospital must meet the 10% gap to goal, where the Public Hospital must achieve a closure of a minimum of 10% of the difference between the benchmark and the baseline performance or maintain at or above the benchmark. Each subsequent year would continue to be set with a target using the most recent year's data, unless otherwise specified.

$$\text{Performance Year} - \text{Baseline} >= (\text{Benchmark} - \text{Baseline}) * 10\%$$

Examples of clinical outcome measures are Controlling High Blood Pressure (NQF 0018) and Comprehensive Diabetes Care: Hemoglobin A1c Control (NQF 0575).

(iii) Non-standardized benchmark delivery/outcomes measures are metrics that do not have an available or acceptable benchmark and/or are specific measures that are more appropriate for improvement over hospital baseline (such as non-risk adjusted or utilization improvement measures). For example, to meet the threshold for success, for pay-for-performance measures applicable to DY 22, the Public Hospital must show improvement from baseline (DY 21) to performance year (DY 22). To meet the threshold for success, for pay-for-performance measures applicable to DY 23, the Public Hospital must show improvement from baseline (DY 21) to performance year (DY 23) or as specified.

Examples of a non-standardized benchmark delivery/outcomes measure are emergency department utilization rates and reducing the proportion of out-of-network referrals, thereby improving patient continuity of care. These measures are influenced by many factors (which may include patient case mix, multiple processes, and environmental factors). Given that these measures are not risk-adjusted approach, the use of the Public Hospital's historical performance is a pragmatic approach to PHTII. Other examples of a non-standardized benchmark delivery/outcomes measures are the CMS Inpatient Psychiatric Facility Quality Reporting Screening for Metabolic Disorders in Inpatient Psychiatric Care, which is a new measure for which a benchmark is unavailable.

b. MassHealth DSRIP Performance Accountability Funds Incorporated into PHTII Funding Stream
The Public Hospital will follow the reporting process established for the MassHealth DSRIP accountability measures. A DSRIP Accountability Score will be calculated for the Public Hospital using the methodology as described in the DSRIP Protocol, except that the Accountability Score will be calculated based specifically on performance for MassHealth members related to the Public Hospital's primary care panel (versus the whole ACO's primary care panel, if the ACO includes other primary care providers in addition to the Public Hospital). The amount of these at-risk funds the Public Hospital earns will be determined as outlined in the DSRIP Protocol. The DSRIP domains and measures, and the methodology for calculating accountability scores, are further defined in the DSRIP Protocol.

VII.   INITIATIVE MODIFICATION, GRACE PERIODS, AND CARRY FORWARD AND RECLAMATION

20. Initiative Modification Process

a. Consistent with the recognized need to provide the Public Hospital some flexibility to evolve its initiatives over time and take into account evidence and learning from experience and from the field, as well as for unforeseen circumstances or other good cause, the hospital may request modifications to the PHTII Toolkit for an initiative or to its portfolio of selected PHTII initiatives, with the exception of ACO performance accountability, which may not be modified except at EOHHS' direction and as applicable to the broader DSRIP program. The hospital must submit a request for modification to EOHHS. Requests for initiative modification must be in writing and must describe the basis for the proposed modification. Updates to technical specifications of outcomes and improvement measures in the Measure Slates (1 – 6) shall not require a plan modification and can be implemented by the Commonwealth without further approval.

b. Initiative modifications include proposed changes to core components of the initiative, replacement metrics on the improvement and outcome measure slates (Measure Slates 1 – 5), replacement measures to Measure Slate 6, or a change to the overall portfolio of selected PHTII initiatives. Acceptable reasons to approve an initiative modification request are:

   i. Learning and knowledge acquired from initiative experience and/or external sources indicate that revising or reorienting initiative components or metrics would improve and/or enhance the initiative;
   ii. Information that was believed to be available to achieve or report on a metric or measure is unavailable or unusable, necessitating a modification to the hospital initiative to revise or replace the metric or measure;
   iii. The hospital identifies superior information to demonstrate achievement of a metric and requests a modification to incorporate that data source;
   iv. External issues occur outside of the hospital's control that require the hospital to modify or replace a metric, measure, or core component of an initiative;
   v. New federal or state policies are implemented, or changes in Massachusetts market dynamics occur, that impact a PHTII initiative and the hospital seeks to update the affected initiative to reflect the new environment;
   vi. The hospital encounters an unforeseen operational or budgetary change in circumstances that impacts initiative components or metrics; and
   vii. Other acceptable reasons, subject to review and approval by EOHHS and CMS that are reasonable and support the goals of the PHTII program.

c. The Public Hospital may request initiative modifications during DYs 21 – 25. Initiative modification requests must be submitted to EOHHS a minimum of 75 days prior to the end of the Demonstration Year. EOHHS must take action on the initiative modification request and submit recommended requests to CMS for approval within 15 days of receiving a modification request. CMS must take action on the initiative modification request within 30 days of receipt from EOHHS. Any CMS approved initiative modification must be considered an approved modification to the PHTII protocol.

d. Plan modifications associated with grace period requests, including EOHHS and CMS review timeframes, are further addressed in paragraph below.

21. Grace Periods

a. If the Public Hospital needs additional time to achieve a metric beyond the demonstration year, a grace period may be granted for up to 180 days from the end of the demonstration year if it requests. However, no grace period is available for DY 25 beyond June 30, 2022, with the exception of specified outcomes and improvement measures where there is state and federal approval for a later reporting date in recognition that the data will be not be available for reporting until after the July 31, 2022 report for payment. The hospital must have a valid reason, as determined by the Commonwealth and CMS, why it should be granted a grace period and demonstrate that the hospital is able to achieve the metric within the timeframe specified in the request. Grace periods will not be granted for ACO performance accountability. Acceptable reasons to approve a grace period request include:

    i. Additional time is needed to collect and prepare data necessary to report on a metric;
    ii. Unexpected delays by third parties outside of hospital's control (e.g., vendors) impact the timing of a metric achievement date;
    iii. An approved plan modification delays the timing for completing an approved metric; and
    iv. Other acceptable reasons, subject to review and approval by EOHHS and CMS that are reasonable and support the goals of the PHTII program.

b. The Public Hospital may submit a grace period request in writing to EOHHS accompanied by a proposed initiative modification if the initiative modification is deemed necessary by the Public Hospital, pursuant to paragraph 21 above. The hospital must submit the request 75 days prior to the end of the Demonstration year for which the grace period is being sought. EOHHS must determine its recommended action on a grace period request and initiative modification, if the grace period request is accompanied by an initiative modification, and submit the request to CMS, with its recommendation, within 15 days. CMS must take action on the request within 30 days of receipt from EOHHS. The grace period request and any associated initiative modification must be decided by the Commonwealth and CMS 30 days prior to the end of the Demonstration year.

c. The Public Hospital that requests a grace period related to a metric is not precluded from alternatively claiming the incentive payment associated with the same metric under the carry-forward policy described in paragraph 22 below.

d. If after submitting the grace period request, a hospital achieves the metric before June 30, the hospital may withdraw the grace period request and claim the incentive payment associated with the metric under the regular PHTII reporting process described in Section V.

e. Allowable Time Periods for Grace Period Requests: the allowable time period for a grace period is 180 days from June 30 for DYs 21 – 24. No grace period is available for DY 25 beyond June 30, 2022 except as expressly described in paragraph 21(a) above.

22. Carry Forward and Reclamation
The Public Hospital may carry forward unclaimed incentive payments applicable to PHTII initiative reports and PHTII Measure Slates 1 – 6 for up to 12 months from the end of the demonstration year and be eligible to claim reimbursement for the incentive payment according to the rules below. No carry-forward is available for DY 25 or for DSRIP performance accountability.

a. If the Public Hospital does not achieve improvement on a measure that was specified for achievement in a particular year, it will be able to carry forward the available incentive funding associated with that measure for up to 12 months and receive full payment if EOHHS determines, based on documentation provided by the hospital, that the hospital meets the corresponding

measure associated with the year in which the payment is made. For purposes of carry-forward in this paragraph, a corresponding measure is a measure that is a continuation of a prior year measure and is readily quantifiable. An example of corresponding measures includes a metric that shows a number or percentage increase in the same specific activity from the previous year.

b. If there is no corresponding measure associated with the year in which the payment is made, the hospital will be able to carry forward the available incentive funding associated with the missed measure for up to 12 months and receive full payment if EOHHS determines, based on documentation provided by the hospital, that the hospital meets the missed measure in addition to at least 25 percent of measures associated with that initiative in the year in which the payment is made. If at the end of that subsequent demonstration year, an eligible safety net hospital has not fully achieved a measure, it will no longer be able to claim that funding related to its completion of that measure.

VIII. MENU OF PHTII INITIATIVES AND CORRESPONDING OUTCOMES AND IMPROVEMENT MEASURE SLATES

23. PHTII Initiatives and Measure Slates
This section presents a menu of PHTII Initiatives and corresponding outcomes and improvement Measure Slates from which an eligible public hospital may select. Cambridge Health Alliance has selected PHTII Initiatives 1 – 4 and corresponding Measure Slates 1 – 4 and 6.

Initiative Title	1. Integration of Behavioral Health and Primary Care
Description/Rationale	

To continue the advancement in integrated medical and behavioral health care in the context of population health management and alternative payment models, this initiative will leverage evidence-based practices to advance screening, treatment and improved access to behavioral health care based in the primary care setting for adults, children and adolescents.

This suite of initiatives will include a focus on population health, quality outcomes, patient engagement and experience of care improvements, coordinated, cross continuum care, and effective care management and follow-up on targeted conditions including depression, anxiety, and substance use disorders.   This will be enabled through the optimization of screening and follow-up workflows, expansion of evidence-based treatment options, provider and staff training and engagement, building relationships among staff and providers across the system, and building community connections to support patient care.

Collaborative care, an evidence based delivery model, has been shown to support the Triple Aim among patients with depression, the most prevalent mental disorder. [39] [40] The key elements of collaborative care models include: the use of a mental health registry, stepped care approach to depression management (i.e. intensifying treatments when needed), use of validated instruments (such as the Patient Health Questionnaire (PHQ-2 or PHQ-9) for depression, Generalized Anxiety Disorder scale (GAD-7) for anxiety, National Institute on Alcohol Abuse and Alcoholism single item screening tool (NIAAA-1), Alcohol Use Disorders Test (AUDIT), National Institute on Drug Abuse quick screen test (NIDA-1) and the Drug Abuse Screening Test (DAST), and regular caseload consultations by the psychiatrist and the behavioral care manager. Additional elements of integration include the co-location of   behavioral health staff (such as therapists and psychiatrists) into primary care settings, meetings held by primary care and behavioral health team members to discuss cases, training of primary care and behavioral health staff on effective screening and collaborative care, and strategies to address substance use disorder (such as SBIRT) in primary care.[41]

Collaborative care models, structured care involving a greater role of non-medical specialists to augment primary care and provide care management, have been shown to be more effective than standard care in improving depression outcomes in the short- and long-term. [42] There is strong evidence supporting benefits of care management for depression.[43] Findings from more than 80 studies demonstrated that collaborative care increased adherence to evidence-based depression treatment by twofold and improved outcomes, including in low-income populations.[44] Studies have also revealed value in terms of cost-effectiveness, cost-benefit analysis, and improved patient satisfaction with care.[45] The Agency for Healthcare Research and Quality has found in their research that the integration of mental health/substance abuse and primary care has

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[39]Institute for Clinical and Economic Review. March, 2015. Integrating Behavioral Health into Primary Care.

[40]Unützer J, Katon WJ, Williams JW, Callahan CM, Harpole L, Hunkeler EM, Hoffing M, Areán PA, Hegel MT, Schoenbaum M, Oishi SM, Langston CA. Improving primary care for depression in late life: the design of a multi-center randomized trial. Medical Care. 2001; 39:785-799.

[41]The Diamond Model is based on the Collaborative Care Model for depression by Wayne Katon, MD and the IMPACT Study by Jurgen Unutzer, MD as well as numerous other controlled trials from Institute for Clinical Systems Improvement and Minnesota Family Health Services presentation to the Institute for HealthCare Improvement Annual Forum, Dec 2010.

[42]Gilbody S, Bower P, Fletcher J, Richards D, Sutton A. "Collaborative Care for Depression: A Cumulative Meta-analysis and Review of Longer-term Outcomes." ARCH INTERN MED/VOL 166, NOV 27, 2006

[43]Williams J et.al. "Systematic review of multifaceted interventions to improve depression care." General Hospital Psychiatry, 29 (2007) 91–116.

[44]Archer, Janine, et al. "Collaborative care for depression and anxiety problems." *The Cochrane Library* (2012).

[45]Katon WJ. "Collaborative Depression Care Models: From Development to Dissemination." American Journal of Preventive Medicine, 012;42(5):550–552.

Initiative Title	1. Integration of Behavioral Health and Primary Care

achieved positive outcomes.[46] Furthermore, the Center for Integrated Health Solutions sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA) and Health Resources and Services Administration (HRSA) include evidence-based practices in integrated primary care and behavioral health services to better address the needs of individuals with mental health and substance use concerns and that have demonstrated positive impacts, including on health care costs, for integration in many environments.[47]

Substance use and addiction are significant challenges for society and for public payer populations. Unidentified mental health and substance use treatment needs contribute to higher costs and poor health outcomes. Alcohol and substance use disorders are frequently co-occurring with other mental health and physical health conditions. A recent publication released by the Substance Abuse and Mental Health Services Administration (SAMHSA) reported that in Massachusetts, only 53.8 % of adults with any mental illness (approximately 522,000 individuals per year in 2010-2014) actually received mental health treatment within the year prior to being surveyed, and only 7.5% of those with alcohol abuse or dependence received treatment in the prior year.[48] Furthermore, the national problem of death related to opioid use disorder and overdose is increasing year by year in Massachusetts.[49].

Utilization of necessary treatments has been shown to have a return on investment with impacts in health care and other public programs. According to the National Institute on Drug Abuse, for every dollar spent on addiction treatment programs there is an estimated $4 to $7 reduction in the criminal-justice-related costs and a $12 reduction in costs if health-care costs are included.[50] Evidence-based approaches are available to support population health strategies and address such conditions in primary care. The United States Preventive Services Task Force has given a rating of 'B' to alcohol misuse screening for adults, indicating strong recommendation of this service and high certainty of moderate to substantial net benefit.[51]

Over the past few years, efforts have been initiated to build a system for screening for high risk alcohol use and substance use disorder in primary care, and interventions as appropriate. With this initiative, future work may entail: a) increasing the percentage of the primary care patient population who receives these screenings; b) improving the quality of the interventions provided for those who screen 'positive'; c) expanding the range of treatment offerings provided in primary care, and d) optimizing primary-care-based pain management offerings including alternatives to chronic opioid therapy, as providers increasingly optimize the use of opioid-based regimens for patient that require this modality of treatment.

According to the American Academy of Pediatrics, behavioral and emotional problems during childhood are common, often undetected, and frequently untreated despite primary role in significant morbidity and mortality. According to current estimates, approximately 11% to 20%

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[46]Agency for Healthcare Research and Quality website: http://www.ahrq.gov/research/findings/evidence-based-reports/mhsapctp.html
Integration of Mental Health/Substance Abuse and Primary Care, Structured Abstract. October 2008. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/clinic/tp/mhsapctp.htm
[47]Substance Abuse and Mental Health Services Administration (SAMHSA) Center for Integrated Health Solutions research: http://www.integration.samhsa.gov/about-us/CIHS_NACHC_BH_Integration_September_19_2013_FINAL.pdf
[48]Substance Abuse and Mental Health Services Administration. *Behavioral Health Barometer: Massachusetts, 2015*. HHS Publication No. SMA-16-BARO-2015-MA. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.
[49]http://www.mass.gov/eohhs/docs/dph/quality/drugcontrol/county-level-pmp/data-brief-overdose-deaths-may-2016.pdf
[50]https://www.drugabuse.gov/publications/teaching-packets/understanding-drug-abuse-addiction/section-iv/6-cost-effectiveness-drug-treatment
[51]http://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/alcohol-misuse-screening-and-behavioral-counseling-interventions-in-primary-care

Initiative Title	1. Integration of Behavioral Health and Primary Care

of children in the United States have a behavioral or emotional disorder at any given time.[52] [53] Estimated prevalence rates are similar in young 2- to 5-year-old children. Developmental and behavioral health disorders are now the top 5 chronic pediatric conditions causing functional impairment.[54] [55] [56] The American Academy of Pediatrics (AAP) urges clinicians to screen for developmental and behavioral problems at all health supervision visits using quality tools.[57] Indeed, population health starts with population screening.

Children and adolescents comprise a significant portion of the patient panel or public providers and Medicaid populations. Primary care providers caring for children and adolescents in the Commonwealth are required to use routine screening for developmental, behavioral and mental health disorders and the evidence and practice standards around screening in this population have evolved significantly in recent years. As such, there is an opportunity to update routine, comprehensive screening for behavioral and developmental conditions in the child and adolescent population, using validated screening instruments such as the Survey of Wellbeing of Young Children (SWYC) for developmental screening, the Pediatric Symptom Checklist (PSC) and PHQ-9 for depression, and CRAFFT (mnemonic acronym of first letters of key words in the six screening questions) short clinical assessment tool for substance related risks and problems, and to develop the associated registries and analyze utilization patterns and service gaps. In addition, the identification and deployment of key, evidence-based interventions intended to have a beneficial impact on the behavioral and developmental outcomes in the patient population of children and adolescents. In conjunction with implementation of the CRAFFT instrument for alcohol and substance use among adolescents, primary care providers will optimize follow-up workflows according to the evidence base for SBIRT among adolescents.[58]

Goals/Objectives

Goals include leveraging the foundation for primary care-behavioral health (BH) integration to advance integrated approach for adults and pediatrics to improve key intermediate and outcomes measures for high-prevalence BH conditions (e.g. depression, anxiety, alcohol and substance use disorder (SUD)). Additional goals include optimizing primary care based treatment for pain and opioid addiction. Furthermore, aims include cardiovascular, metabolic, and diabetes monitoring for patients on antipsychotic medications, and cross-disciplinary care coordination improvements for mental illness.

Specific objectives include:
- Increase screening and follow-up for high prevalence behavioral health conditions (depression, anxiety, SUD) among adults, adolescents and pediatric patients.

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[52]Costello EJ, Mustillo S, Erkanli A, Keeler G, Angold A. Prevalence and development of psychiatric disorders in childhood and adolescence. *Arch Gen Psychiatry*. 2003;60(8):837–844

[53]*Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda.* Washington (DC): US Department of Health and Human Services; US Department of Health and Human Services; US Department of Education; US Department of Justice, 2000.

[54]Slomski, A. Chronic Mental Health Issues in Children Now Loom Larger Than Physical Problems *JAMA. 2012;308(3):223-225.*

[55]Halfon N, Houtrow A, Larson K, Newacheck PW. The changing landscape of disability in childhood. *Future Child.* 2012;22(1):13–42

[56]Promoting Optimal Development: Screening for Behavioral and Emotional Problems. Carol Weitzman, Lynn Wegner, the Section on Developmental and Behavioral Pediatrics, Committee on Psychosocial Aspects of Child and Family Health, Council on Early Childhood and Society for Develop Mental and Behavioral Pediatrics. *Pediatrics* Feb 2015, 135 (2) 384-395.

[57]Identifying Infants and Young Children With Developmental Disorders in the Medical Home: An Algorithm for Developmental Surveillance and Screening Council on Children With Disabilities, Section on Developmental Behavioral Pediatrics, Bright Futures Steering Committee, Medical Home Initiatives for Children With Special Needs Project Advisory Committee *Pediatrics* Jul 2006, 118 (1) 405-420.

[58]Massachusetts Department of Public Health Bureau of Substance Abuse Services. Provider Guide: Adolescent Screening, Brief Intervention, and Referral to Treatment Using the CRAFFT Screening Tool. Boston, MA. Massachusetts Department of Public Health, 2009.

Initiative Title	1. Integration of Behavioral Health and Primary Care

- Improve depression response and remission.
- Improve rates of screening, intervention, engagement for drug and alcohol use disorder
- Improve training and competency among relevant providers.
- Improve provider satisfaction and confidence in diagnosing and managing key conditions.
- Improve management of opioid prescribing, as a means for preventing opioid dependence and promoting alternative treatments for chronic pain management.
- Improve management and expand options for treatment of pain.
- Improved collaboration related to the care continuum for mental health and substance use, including cardiovascular risk optimization for persons on antipsychotic medications
- Improve transitions in care.
- Ongoing evaluation of evidence-base supporting the expansion of treatment options for behavioral health and pain management in primary care.

Core Components

This initiative, if undertaken, may include the following components:

1. Improve screening, treatment, and outcomes for depression and anxiety
- Build upon overall adult wellbeing screening using validated instruments including the PHQ-9, GAD-7, NIAAA-1, NIDA-1, AUDIT and DAST
- Evaluate local and national protocols for suicide risk assessment and management; design and implement appropriate local practices.
- Improve referral management across the care continuum according to the Stepped Model of Care, including ongoing assessment of patient severity and type seen by integrated behavioral health staff and those referred to specialty mental health. Work to formalize tools to manage capacity and prioritization of patients as appropriate.
- Promote patient engagement in care by expanding access to initiatives such as mindfulness-based stress reduction groups, self-help mobile technology, and peer-support groups.
- Monitor and continuously improve primary care and behavioral health staff confidence in managing appropriate behavioral health conditions, satisfaction and skills with Primary Care Behavioral Health Integration.
- Optimize care for moderate and severe mood disorder patients in primary care (i.e. those who require specialty mental health care for conditions like bi-polar and schizoaffective disorders, but do not connect there)
- Improve rates of screening/follow-up/improvement /remission in depression/anxiety

2. Optimize primary care screening, diagnosis, and treatment for substance use disorders (SUD)
- Enhance offerings for patients with substance use disorders in primary care (e.g. medication treatment for severe alcohol use disorder). Medication-assisted treatment (MAT) in combination with counseling and behavioral therapies can provide a whole-person approach to treatment of substance use disorders.
  - Expand offerings in groups in primary care setting (peer support or staff-facilitated)
  - Enhanced training for primary care providers
  - Expand use of medication-assisted treatment (MAT) for opioid use disorders in primary care, including buprenorphine and naltrexone, which are medications currently approved by the Food and Drug Administration for the treatment of opioid dependence through medication-assisted treatment. Naltrexone may also be used in the treatment of alcohol use disorders.[59]

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[59] http://www.samhsa.gov/medication-assisted-treatment

Initiative Title	1. Integration of Behavioral Health and Primary Care

- Conduct ongoing program evaluation and adaptation of protocols for Screening, Brief Intervention and Referral to Treatment (SBIRT) for treatment of less-severe disorders in primary care
- Improve communication and shared decision-making among staff at points of transition in care, including inpatient/outpatient.
- Develop peer support programming for SUD.

3. **Develop programming for chronic pain management in primary care**
- Explore alternatives to chronic opioid therapy for pain management as warranted
- Evaluate evidence base, payor coverage, landscape of local services, feasibility, and patient needs for chronic pain management services (including psychotherapy, mindfulness, acupuncture, biofeedback, and tai chi / yoga)
- Build and expand group- and individual-based Cognitive Behavioral Therapy and mindfulness treatment strategies, based on above-mentioned evaluation (including through training of integrated mental health staff)
- Develop expedited referral pathways to physical therapy to support effective chronic pain management.
- Establish a system-wide provider-to-provider peer committee for review of challenging cases
- Create a registry for chronic opioid and other high-risk prescriptions and develop a system for reviewing and optimizing care
- Ensure screening and monitoring of chronic pain co-morbidities.

4. **Screen and follow-up for high prevalence BH conditions for children and adolescents**
- Ensure routine behavioral health screening for the child and adolescent population using validated screeners, such as the SWYC, PSC, and CRAFFT, that comply with Massachusetts legal requirements and support the most current clinical practice guidelines.
- Standardize screening for developmental and behavioral health conditions, including depression and substance use.
- Incorporate routine screening for post-partum depression into pediatric primary care visits.
- Develop and deploy registries to facilitate and track appropriate referrals and care.
- Introduce SBIRT for adolescents with or at risk for substance use disorders
- Assess and analyze gaps in services and care for other childhood behavioral and developmental conditions, and improve care as warranted.
- Improve referral management across the care continuum, including ongoing assessment of patient severity and type seen by integrated behavioral health staff and those referred to specialty mental health. Work to formalize tools to manage capacity and prioritization of patients as appropriate.

Required Measure Slate: Improvement and Outcomes Measures *(Achieve 2 out of 4 in Year 1, 4 of 11 Outcome Measures in Year 2, 5 out of 11 in Year 3, 6 out of 11 in Year 4, and 7 out of 11 in Year 5).*									
Measure Slate 1		**1: Behavioral Health and Primary Care Integration**		**Achieve 2 of 4 Measures**	**Achieve 4 of 11 Measures**	**Achieve 5 of 11 Measures**	**Achieve 6 of 11 Measures**	**Achieve 7 of 11 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2 022**	**Rationale for Improvement Target**
1	Depression Response at 6 Months - Progress Towards Remission (across all core primary care sites)	NQF 1884	No external benchmark; hospital-specific improvement target = 45%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	This target is based on literature on collaborative care indicating that a rate of 45% on the depression response measures represents the highest level of statistically meaningful improvement that has currently been achieved[60].
2	Depression Response at 12 Months - Progress Towards Remission (across all core primary care sites)	NQF 1885	No external benchmark; hospital-specific improvement target = 45%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	This target is, based on literature on collaborative care indicating that a rate of 45% on the depression response measures represents the highest level of statistically meaningful improvement that has currently been achieved[61].
3	Primary Care Provider confidence in management of depression, measured through annual survey	PCMH	No external benchmark; hospital specific improvement target = 90%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target based on evidence-based depression programming in primary care.
4	Primary Care Provider confidence in management of substance use disorders, measured through annual survey	PCMH	No external benchmark; hospital specific improvement target = 70%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target based on newness of initiative introducing universal screening for substance use disorders in primary care and care management initiatives.

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[60]Thota Et al (2012). Collaborative Care to Improve the Management of Depressive Disorders. Am J Prev Med. 42(5): 525-538.; Unutzer et al (2002). Collaborative Care Mgmt of Late Life Depression in the Primary Care Setting. JAMA 288 (22).

[61]Thota Et al (2012). Collaborative Care to Improve the Management of Depressive Disorders. Am J Prev Med. 42(5): 525-538.; Unutzer et al (2002). Collaborative Care Mgmt of Late Life Depression in the Primary Care Setting. JAMA 288 (22).

Baseline (B) / Outcome and Improvement (O)   25

Required Measure Slate: Improvement and Outcomes Measures *(Achieve 2 out of 4 in Year 1, 4 of 11 Outcome Measures in Year 2, 5 out of 11 in Year 3, 6 out of 11 in Year 4, and 7 out of 11 in Year 5).*									
Measure Slate 1		**1: Behavioral Health and Primary Care Integration**			**Achieve 2 of 4 Measures**	**Achieve 4 of 11 Measures**	**Achieve 5 of 11 Measures**	**Achieve 6 of 11 Measures**	**Achieve 7 of 11 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2 022**	**Rationale for Improvement Target**
5	Screening and Brief Intervention for Alcohol Use for adults (across all core primary care sites)	NQF 2152	No external benchmark; hospital specific improvement target = 65%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	Target based on literature review of best practice performance levels.[62]
6	Screening and Brief Intervention for Drug Use for adults (across all core primary care sites)	NQF 2152, adapted to include substance use	No external benchmark; hospital specific improvement target = 65%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Same as above.
7	Patients on Chronic Opioid Therapy with a Controlled Substance Agreement (across all core primary care sites)	N/A	No external benchmark; hospital-specific improvement target = 80%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	Target aligned to initiative to optimize opioid prescribing practice.
8	Patients on Chronic Opioid Therapy with urine drug screening (across all core primary care sites)	N/A	No external benchmark; hospital-specific improvement target = 80%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	Target aligned to initiative to optimize opioid prescribing practice.
9	Patients with chronic pain who had functional assessment (across all core primary care sites)	NQF 0050, adapted to include all chronic pain conditions	No external benchmark; hospital specific improvement target = 50%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target based on newness of initiative, and literature indicating the value of functional assessment in patients with chronic pain[63].

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[62]Bertholet N, Daeppen JB, Wietlisbach V, Fleming M, Burnand B. Reduction of Alcohol Consumption by Brief Alcohol Intervention in Primary Care. Archives of Internal Medicine. 2005;165:986-995; Babor TF, Higgins-Biddle JC, Dauser D, Burleson JA, Zarkin GA, Bray J. Brief Interventions for At-Risk Drinking: Patient Outcomes and Cost-Effectiveness in Managed Care Organizations. Alcohol and Alcoholism. 2006;41(6):624-631.
[63]Institute for Clinical Systems Improvement, Assessment and Management of Chronic Pain 2013

Baseline (B) / Outcome and Improvement (O)

Required Measure Slate: Improvement and Outcomes Measures *(Achieve 2 out of 4 in Year 1, 4 of 11 Outcome Measures in Year 2, 5 out of 11 in Year 3, 6 out of 11 in Year 4, and 7 out of 11 in Year 5).*									
Measure Slate 1		1: Behavioral Health and Primary Care Integration			Achieve 2 of 4 Measures	Achieve 4 of 11 Measures	Achieve 5 of 11 Measures	Achieve 6 of 11 Measures	Achieve 7 of 11 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
10	Screening and Brief Intervention for Alcohol and Drug Use for adolescents (across all core primary care sites)	NQF 2152, adapted to expand to new age range for adolescents	No external benchmark; hospital specific improvement target = 50%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Expansion of measure to the adolescent patient population. Improvement target based on newness of initiative for adolescent patients.
11	Maternal Depression Screening (across all core primary care sites)	NQF 1401	No external benchmark; hospital specific improvement target = 75%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target based on literature indicating value of maternal depression screening in conjunction pediatric visits to identify developmental risk factors.[64]

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[64]*Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda.* Washington (DC): US Department of Health and Human Services; US Department of Health and Human Services; US Department of Education; US Department of Justice, 2000.

Baseline (B) / Outcome and Improvement (O)

Initiative Title	2. Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions
Description/Rationale	

Poor access to appropriate levels of care is a leading barrier to recovery for individuals with mental health and substance use (MHSU) conditions.[65] A comprehensive system for MHSU treatment – offering the right care to the right people at the right time – requires a wide range of services and delivery methods to meet the unique needs of individuals and families. Among others, these services include outpatient counseling (including primary care integration), intermediate care (intensive outpatient, partial hospital), residential and inpatient facilities, support for care transitions, and triage and emergency services. A robust continuum of care helps people access services when they need and want them, improving patient experience and the value of care (quality/cost).

A comprehensive treatment system allows individuals and their providers to develop an optimal care plan most likely to help them stay connected to their communities and succeed in daily activities, such as work or school. This, in turn, promotes greater engagement of family and community supports, ensuring that more resources are in place to support one's recovery. Individuals who do receive appropriate treatment early in their onset of illness may require less intensive care, experience fewer relapses,[66] and have better long-term health outcomes.[67] New programs offering integrated, person-centered MHSU care show promising results – greater use of community-based outpatient care, fewer hospital and emergency department (ED) admissions, better health outcomes[68-69] – and offer hope for developing more effective, sustainable care models.

However, left untreated, behavioral health disorders and co-occurring health conditions have harmful economic, interpersonal, and social impacts for the population as a whole.[70] This troubling impact is most evident in the 20 to 30 year gap in life expectancy among people living with serious mental illnesses (SMI).[71-72] This disparity is driven largely by higher rates of chronic disease (e.g. diabetes, hypertension, hyperlipidemia, and obesity), delayed diagnosis and treatment of medical conditions,[73] fragmented delivery of inadequate care,

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[65]American Hospital Association, Trendwatch, Bringing Behavioral Health into the Care Continuum, Opportunities to Improve, January 2012. Available at: http://www.aha.org/research/reports/tw/12jan-tw-behavhealth.pdf.

[66]Institute of Medicine (US) Committee on Quality Assurance and Accreditation Guidelines for Managed Behavioral Health Care; Edmunds M, Frank R, Hogan M, et al., editors. Managing Managed Care: Quality Improvement in Behavioral Health. Washington (DC): National Academies Press (US); 1997. Available from: http://www.ncbi.nlm.nih.gov/books/NBK233235/

[67]Kane JM, Robinson DG, Schooler NR, et al. Comprehensive Versus Usual Community Care for First-Episode Psychosis: 2-Year Outcomes From the NIMH RAISE Early Treatment Program. *American Journal of Psychiatry AJP*. 2016;173(4):362-372. doi:10.1176/appi.ajp.2015.15050632.

[68]Krupski A, West II, Scharf DM, et al. Integrating Primary Care Into Community Mental Health Centers: Impact on Utilization and Costs of Health Care. *PS Psychiatric Services*. 2016. doi:10.1176/appi.ps.201500424.

[69]Gilmer TP, Henwood BF, Goode M, Sarkin AJ, Innes-Gomberg D. Implementation of Integrated Health Homes and Health Outcomes for Persons With Serious Mental Illness in Los Angeles County. *PS Psychiatric Services*. 2016. doi:10.1176/appi.ps.201500092.

[70]American Hospital Association, Trendwatch, Bringing Behavioral Health into the Care Continuum, Opportunities to Improve, January 2012. Available at: http://www.aha.org/research/reports/tw/12jan-tw-behavhealth.pdf.

[71]Druss BG, Zhao L, Esenwein SV, Morrato EH, Marcus SC. Understanding Excess Mortality in Persons With Mental Illness: 17-year Follow Up of a Nationally Representative US Survey. *Medical Care*. 2011;49(6):599-604. doi:10.1097/mlr.0b013e31820bf86e.

[72]Colton CW, Manderscheid, RW. Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. *Preventing Chronic Disease*. 2006;3(2):1-14.

[73]Nasrallah HA, Meyer JM, Goff DC, et al. Low rates of treatment for hypertension, dyslipidemia and diabetes in schizophrenia: Data from the CATIE schizophrenia trial sample at baseline. *Schizophrenia Research*. 2006;86(1-3):15-22. doi:10.1016/j.schres.2006.06.026.

Initiative Title	2. Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions

medication side effects,[74] and higher rates of modifiable risk factors[75] – all of which are more common among people with SMI and/or substance use disorders (SUD).

Based on data from 2010 to 2014, on average 4.2 percent of Massachusetts residents are living with SMI and 10 percent have a SUD,[76] and the majority of state residents who need MHSU services do not receive any. Among adult residents with any mental illness, about 46 percent receive no care each year; for SUD, the figure is closer to 90 percent.[77] Even for those who do access care, not all treatment is appropriate or sufficient. Among adults who access mental health care, 30 percent still report unmet needs, and more than one-third of those treated in the state's public mental health system say it has not improved their functioning.[78]

Massachusetts' MHSU service gaps are due in part to shortages across the entire care continuum, from outpatient care to emergency services, inpatient beds, partial hospital programs, crisis stabilization units, detoxification, residential programs, and so on. This can result in sub-optimal wait times for outpatient therapy; extended hospitalizations due to lack of community-based services; and "boarding" in emergency departments (ED) as people await transfer to intermediate or acute care. These access issues can be more pronounced for MassHealth enrollees because many providers do not contract with Medicaid to serve its members. Massachusetts now faces an opioid use epidemic that has doubled the rate of overdose deaths from 2012 to 2015.[79] The problem and need for care is growing exponentially. Improving access to opioid treatment will require expanding capacity for Medication-Assisted Treatment (MAT) and providing more timely access to comprehensive evidence-based outpatient care for SUD.

A substantial portion of the public care system for individuals with the most disabling conditions extends beyond health care services to rehabilitative and support services, including housing, job counseling, literacy, and other programs. The coordination of these services requires collaborative and cooperative relationships among many agencies, service providers, and community organizations. Most of these services are not covered by private insurance and have not been developed by most private behavioral health care companies. Poor linkage and fractured funding impedes the ability to provide access to these services in a coordinated and integrated way.[80] One strategy that may be employed to address this barrier to care is formalization of agreements between healthcare providers and community-based providers who offer complementary services, and providing integrated population case management.

Along with improving access to MHSU treatment and reliable coordination among all service providers, a focus on health promotion is essential to impact health outcomes for this population. A national study

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[74]Meyer JM, Davis VG, Goff DC, et al. Change in metabolic syndrome parameters with antipsychotic treatment in the CATIE Schizophrenia Trial: Prospective data from phase 1. *Schizophrenia Research*. 2008;101(1-3):273-286. doi:10.1016/j.schres.2007.12.487.
[75]SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2008-2010.
[76]Substance Abuse and Mental Health Services Administration (SAMHSA). Behavioral Health Barometer: Massachusetts, 2015. HHS Publication No. SMA–16–Baro–2015–MA. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.
[77]Massachusetts Department of Public Health. State Health Plan: Behavioral Health, Dec 2014. Available at: http://www.mass.gov/eohhs/docs/dph/health-planning/hpc/deliverable/behavioral-health-state-health-plan.pdf.
[78]Colton CW, Manderscheid, RW. Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. *Preventing Chronic Disease*. 2006;3(2):1-14.
[79]Massachusetts Department of Public Health. Data Brief: Opioid-related Overdose Deaths Among Massachusetts Residents. May 2016. Available at: http://www.mass.gov/eohhs/docs/dph/quality/drugcontrol/county-level-pmp/data-brief-overdose-deaths-may-2016.pdf.
[80]Institute of Medicine (US) Committee on Quality Assurance and Accreditation Guidelines for Managed Behavioral Health Care; Edmunds M, Frank R, Hogan M, et al., editors. Managing Managed Care: Quality Improvement in Behavioral Health. Washington (DC): National Academies Press (US); 1997. Available from: http://www.ncbi.nlm.nih.gov/books/NBK233235/

Initiative Title	2. Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions

estimated 85 percent of the life expectancy gap for people living with schizophrenia was attributable to "natural" causes, such as cardiovascular disease, cancers, pneumonia, diabetes, and so on.[81] Early screening and intervention for these medical conditions is essential to improving health outcomes. This is particularly true for patients taking antipsychotic medications that increase the risk for certain medical conditions, most notably metabolic syndrome. While these diseases can develop for numerous reasons, modifiable factors such as smoking, diet, physical activity, substance use, and social needs are key drivers. Promoting healthy living through education, skills training, and behavioral therapy will be necessary to improve population health. Certain interventions have improved health outcomes among people with psychotic disorders.[82-83]

Improving access to MHSU care overall requires attention to all aspects of the care continuum, from the professional care provided by trained clinicians to self care and social support. Expansion of services in those areas of the continuum that are most lacking, particularly in the intermediate levels of care that provide step-down and diversionary services, will assist with shifting care away from more intensive levels and providing patients with care at the appropriate level of service. Providers must also consider adopting treatment modalities that can improve efficiency and create capacity within existing services, such as shorter term evidence-based treatments and technology-based services, such as telemedicine consultations. Patient care teams may be redefined to include all who work with the patient, including clinicians, paraprofessionals, peer specialists/coaches, community-based providers, social support providers, etc., with the patient at the center of the team.

Goals/Objectives

The ultimate goal of this project is to achieve Triple Aim results – improved population health, better experience of care, and lower costs – and deliver higher-value care for people with serious mental illness and/or substance use disorders. To pursue the Triple Aim for this vulnerable population, the initiative aims to:

- Improve access (proximity and timeliness) to specialty MHSU care;
- Provide access to outpatient appointments within 7 days for patients discharged from inpatient psychiatry units and within 14 days for non-urgent MHSU referrals;
- Expand capacity for Medication-Assisted Treatment (MAT) for patients with SUD;
- Increase utilization of routine primary care and outpatient behavioral health services;
- Increase utilization of alternatives to traditional care, including tele-medicine consultations;
- Implement population health management initiatives that support integrated specialty behavioral health and physical health and improved patient outcomes;
- Improve the population's metabolic and cardiovascular health, both modifiable causes of premature death;
- Provide key screening and intervention activities for hospitalized patients;
- Improve the experience of care among people using specialty MHSU treatment services;
- Improve reliable communication and coordination among entire care teams across different levels of care, including primary care/medicine, behavioral health, medical specialty, and community-based service providers;
- Increase utilization of patient-informed plans of care;

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[81]Kane JM, Robinson DG, Schooler NR, et al. Comprehensive Versus Usual Community Care for First-Episode Psychosis: 2-Year Outcomes From the NIMH RAISE Early Treatment Program. *American Journal of Psychiatry AJP*. 2016;173(4):362-372. doi:10.1176/appi.ajp.2015.15050632.

[82]Bartels S, Desilets R. Health Promotion Programs for People with Serious Mental Illness (Prepared by the Dartmouth Health Promotion Research Team). Washington, DC. SAMHSA-HRSA Center for Integrated Health Solutions. Jan 2012.
[83]Bruins J, Jörg F, Bruggeman R, Slooff C, Corpeleijn E, Pijnenborg M. The Effects of Lifestyle Interventions on (Long-Term) Weight Management, Cardiometabolic Risk and Depressive Symptoms in People with Psychotic Disorders: A Meta-Analysis. *PLoS ONE*. 2014;9(12). doi:10.1371/journal.pone.0112276.

Initiative Title	2. Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions

- Reduce utilization of avoidable emergency department visits for adults with serious mental illness (target population of high acute care and/or emergency services utilization);
- Provide alternatives to higher cost services for this particularly high-cost Medicaid sub-population.[84]

Core Components

This initiative, if undertaken, may include the following components:

Health promotion and chronic disease management for populations with mental health and substance use (MHSU) disorders

- Identify evidence-based practices for development and implementation of metabolic and cardiovascular screening protocols for people prescribed antipsychotic medications.
- Reliably screen for frequent co-morbid diseases that are key drivers of premature mortality: diabetes, hyperlipidemia, hypertension, obesity, etc.
- Offer health promotion activities, such as behavioral activation strategies for healthy eating, exercise, weight management.
- Develop processes to screen for social service needs and develop follow-up plan.
- Perform screening, brief intervention, and referral to treatment for tobacco cessation.
- Reliable medication management and reconciliation across multiple providers.
- Evaluation and screening for use of long-acting antipsychotics for people for serious mental illness.
- Screen patients hospitalized on inpatient psychiatry units for unhealthy alcohol use, and initiate treatment if indicated by providing brief intervention during the patient's hospitalization.
- Improve screening for medical conditions for patients on inpatient psychiatry units, with special attention to metabolic disorders and other medical conditions that may result from use of psychiatric medications.

Promote timely access to ambulatory MHSU treatment through greater variety and efficiency of services

- Distribute ambulatory MHSU services across service area based on panel size and local needs.
- Expand capacity for more evidence-based group treatment modalities, such as Problem Solving Therapy, Cognitive Behavioral Therapy, Internal Family Systems Therapy, neurobiofeedback, etc.
- Increase capacity for Medication-Assisted Treatment (MAT) for opioid use disorder among primary care and specialty BH providers, and improve access to MAT for patients with opioid use disorder.
- Partner (informally or contractually) with community-based providers of social and health services to reliably link patients to local supports.
- Greater adoption of tele-medicine technology for specialty mental health and addiction care in order to provide ready access to psychiatric consultation for medical service providers, other community-based providers, and/or direct consultation with patients.
- Enhance administrative systems to increase provider productivity by reducing unused appointments.
- Expand resources for case management and service coordination so all providers can work to the top of their license.
- Integrate paraprofessional service providers and peer specialists/recovery coaches into existing clinical teams.

Fill service gaps with greater variety and volume of intermediate and ambulatory MHSU care options

- Increase access and decrease wait times for patients in need of ambulatory services through development of assessment service.
- Improve access to Partial Hospital Programs (PHP) and Intensive Outpatient Programs (IOP) as part of the continuum to provide appropriate treatment and decrease utilization of high intensity inpatient care.

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[84]Buck JA, Teich JL, Miller K. Use of mental health and substance abuse services among high-cost Medicaid enrollees. *Administration and Policy in Mental Health*. Sep 2003;31(1):3-14. PMID: 14650645.

Initiative Title	2. Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions

- Provide greater access to more immediate outpatient care through a transition or bridge service that serves as a holding place for patients transitioning through different levels of care, and/or patients who have a longer wait for an appointment with an outpatient provider.
- Explore ways to expand the continuum of care for substance use, which may include adding new capacity for inpatient detoxification and residential services through partnerships.
- Expand MHSU services in geographic areas with limited capacity.
- Improve access to timely post-discharge follow-up appointments for patients discharged from inpatient psychiatry via direct access to transition service, PHP and IOP.

Comprehensive coordination and management of care for populations
- Use risk stratification approaches to identify high-risk cases and/or frequent service users.
- Provide access to intensive case management for individuals identified as having greater risk/cost, such as patients with SMI who are high utilizers of acute care and ED services.
- Develop centralized preventative management capabilities for patients with opioid use disorder, which may include electronic registry functionality to facilitate management and coordination of care.
- Enhance patient outreach, either through the use of paraprofessionals or through partnership with community-based providers.
- Promote use of a central, integrated care plan in EMR shared by primary care and specialty providers.
- Implement an integrated approach to coordinate both the primary care and behavioral health needs for patient populations with SMI and SUD.
- Develop systems for providing comprehensive transitional care.
- Proactively monitor the quality of care and outcomes experienced by MHSU patients.
- Develop systems to facilitate transitions of care for patients discharged from inpatient psychiatry units through the development of a transition record with clinically important information that is given to the patient upon discharge.

Develop new EMR functionality and IT tools that enable coordinated management of population health
- Create patient registries in the electronic medical record (EMR) for discrete MHSU subpopulations to support delivery of best practice.
- Implement real-time electronic alerts for acute care admissions, discharges, or transfers.
- Build discharge follow-up reports (for ED and inpatient discharges) within EMR for target sub-populations.
- Educate and train providers to improve adoption of EMR functionality and other IT tools that support efficient documentation, care coordination, care transitions, and population management.

Promote greater patient engagement and self-management of their health needs
- Support patients in developing skills to effectively collaborate in care planning with their providers.
- Foster integrated approaches to chronic illness care.
- Address self-management challenges posed by behavioral health conditions.
- Educate patients about wellness recovery, maintenance, and crisis prevention/recovery planning using evidence-based practices.
- Integrate peer specialists/recovery coaches into discharge planning process and overall care delivery system.
- Support development of a robust peer recovery community and facilitate the process of connecting patients with MHSU conditions to these services.
- Develop and implement mechanisms to obtain ongoing patient and/or family satisfaction and feedback.

Initiative Title	2. Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions

- Continue to assess patient, family, community, and provider needs to address ongoing gaps in the MHSU continuum of care.
- Evaluate ED and readmission utilization to identify candidates for specialized consultation in integrated care planning.
- Establish relationships with home health and/or other community-based providers to provide home-based education, monitoring, and self-care support for patients with significant barriers to care.

Reliably connect patients and families to necessary health resources and services in community
- Screen for social determinants of health conditions.
- Promote strategies for addressing social determinants of health in care planning.
- Develop collaborative referral relationships with appropriate community-based services.
- Evaluate progress in addressing social determinants of health in the population served.
- Collaborate with community-based partners to reduce the impact of social factors on health outcomes.
- Integrate community-based providers into care team meetings and discharge planning for hospitalized patients.

Develop a clinical workforce that successfully integrates medical and behavioral health care
- Provide training and education in strategies that address the unique self-management challenges posed by co-morbid physical and behavioral health conditions.
- Provide team-based consultation designed to improve clinical skills and treatment plans for individuals with such co-morbid conditions.
- Provide education in behavioral medicine for providers across the care delivery system.
- Align competency assessment with goals for improving clinical outcomes for population served.
- Provide training for the next generation of clinicians and providers that incorporates strategies for integrating medical and behavioral health care.

Required Measure Slate: Improvement and Outcomes Measures *(Achieve 2 out of 5 in Year 1, 5 of 13 Outcome Measures in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, and 8 out of 13 in Year 5).*									
Measure Slate 2		**2: Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions**		**Achieve 2 of 5 Measures**	**Achieve 5 of 13 Measures**	**Achieve 7 of 13 Measures**	**Achieve 8 of 13 Measures**	**Achieve 8 of 13 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2022**	**Rationale for Improvement Target**
1	Controlling high blood pressure for people with serious mental illness (for BH Home population)	NQF 2602	MA Medicaid (HEDIS) 2015 75th percentile: 65.09% (proxy benchmark from NQF 0018 for overall population)	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Using related benchmark for NQF 0018 for overall population.
2	Proportion of patients with identified opioid use disorder accessing medication-assisted treatment (MAT)	N/A	No external benchmark; Hospital target = 50.00%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target of 50% informed by experience with patient engagement in opioid treatment
3	Hospitalized patients screened within 72 hours of admission using a validated screening tool for unhealthy alcohol use (all public hospital system inpatient psychiatric discharges, age 18 and above)	NQF 1661 SUB-1	Joint Commission (2014) 75th percentile = 94.20%	Gap to Goal (10%) or attainment at target	O (CY2017)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	Using Joint Commission benchmark for SUB-1
4	Alcohol use brief intervention provided or offered (during public hospital system psychiatric hospitalization, age 18 and above)	NQF 1663 SUB-2	Joint Commission (2014) average = 48.20%	Gap to Goal (10%) or attainment at target	B (CY2017)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	New measure as of 1/1/16; using related benchmark for NQF 1663, which is a similar measure for all inpatient admissions
5	Follow-up after hospitalization for mental illness (for BH Home population) – 7 days for public hospital system hospitalizations	NQF 0576 (7-day)	National (HEDIS) Medicaid 2015 90th percentile = 63.85%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	

Baseline (B) / Outcome and Improvement (O)

| Required Measure Slate: Improvement and Outcomes Measures
(Achieve 2 out of 5 in Year 1, 5 of 13 Outcome Measures in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, and 8 out of 13 in Year 5). | | | | | | | | | |
| Measure Slate 2 | | 2: Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions | | Achieve 2 of 5 Measures | Achieve 5 of 13 Measures | Achieve 7 of 13 Measures | Achieve 8 of 13 Measures | Achieve 8 of 13 Measures | |
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
6	Transition record with specified elements received by discharged patients(for public hospital system psychiatric hospitalizations)	NQF 0647	MA IPFQR-HBIPS 2014 average = 83.27%	Gap to Goal (10%) or attainment at target	**B** (CY2017)	**O** (CY2018)	**O** (CY2019)	**O** (CY2020)	**O** (CY2021)	New IPFQR measure to be implemented 1/1/17; using related measure for NQF 0557, which is HBIPS-6 for creation of the transition continuing care plan
7	Access to public hospital system ambulatory mental health care: Scheduled intakes within 14 days of referral (for in-network referrals)	N/A	National Medicaid (HEDIS) 2015 90th percentile = 48.10%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Using proxy benchmark derived from National Medicaid (HEDIS) Initiation and Engagement of AOD treatment (initiation component only), NQF 0004.
8	Increase number of synchronous and asynchronous tele-consultations with psychiatrists	N/A	No external benchmark; Hospital target = 400 per year	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	Target informed by roll-out and expansion of tele-psychiatry
9	Diabetes screening for people with Schizophrenia or Bipolar Disorder who are using antipsychotic medications (for active primary care patients and BH home patients)	NQF 1932	MA Medicaid (HEDIS) 2015 90th percentile = 86.96%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	
10	Cardiovascular health screening for people with Schizophrenia or Bipolar Disorder who are prescribed antipsychotic medications (for active primary care patients and BH home patients)	NQF 1927	No external benchmark; hospital-specific target = 75.00%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target informed by experience with screening measures for other populations

Baseline (B) / Outcome and Improvement (O)

Required Measure Slate: Improvement and Outcomes Measures *(Achieve 2 out of 5 in Year 1, 5 of 13 Outcome Measures in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, and 8 out of 13 in Year 5).*									
Measure Slate 2		**2: Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions**		**Achieve 2 of 5 Measures**	**Achieve 5 of 13 Measures**	**Achieve 7 of 13 Measures**	**Achieve 8 of 13 Measures**	**Achieve 8 of 13 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2022**	**Rationale for Improvement Target**
11	Diabetes Monitoring for People with Diabetes and Schizophrenia (for active primary care patients and BH home patients)	NQF 1934	National (HEDIS) Medicaid 2014 90th percentile = 76.67%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	
12	Screening for metabolic disorders (psychiatric inpatient discharges on routinely-scheduled antipsychotic screened during/before stay)	CMS IPFQR	No external benchmark	Improvement over CY 2017 baseline	**B** (CY2017)	**O** (CY2018) 2% increase over CY2017	**O** (CY2019) 5% increase over CY2017	**O** (CY2020) 8% increase over CY2017	**O** (CY2021) 10% increase over CY2017	No existing benchmark; CMSIPFQR measure to be implemented 1/1/17
13	Increase the percentage of BH Home target population patients who have a care plan (care plans may include CHA coordinated care plan and/or ACO behavioral health community partner care plan)	NCQA Medical Home	NCQA 2014 Medical Home Standard = 75.00%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	Target of 75% is 2014 NCQA Medical Home standard.

Baseline (B) / Outcome and Improvement (O)

Initiative Title	3. Referral Management and Integrated Care Management
Description/Rationale	

Toward the goals of better health and optimal, more coordinated and cost-effective care, this suite of initiatives is aimed at increasing patient access to high-quality care, promote appropriate referrals and access (i.e. the right provider in the right setting) based on the complexity of the patient's needs. Providing integrated care across the continuum of care through effective referral management and care coordination is foundational to the accountable care model and alternative payment arrangements with quality, cost and health care utilization accountability. This is particularly important for Medicaid and other vulnerable patient populations that often face barriers to care and care fragmentation.

This initiative builds and supports systems to maintain a preferred, high value network and simultaneously provide highly coordinated and quality care. This initiative aims to accomplish this in four ways: focus on public hospital system access and effective operational improvements in primary care and specialties, encourage public hospital referrals and the use of care within the public hospital system and with clearly defined high value preferred provider networks enabled to coordinate care, build relationships with key community-based partners such as visiting nurse associations (VNAs), skilled nursing facilities (SNFs), and detoxification facilities, and leverage proven technology to improve access and convenience for the patient panel to specialty opinions and care. The Massachusetts Office of the Attorney General's report published in September, 2015 found wide variation in the prices health insurance companies pay providers for similar services, unexplained by differences in quality, complexity of services, or other common measures of consumer value. The report found that higher priced providers are drawing patient volume from lower priced providers, which increases costs as care is shifted from less costly community settings to higher relative price settings.[85] To address this, payers and employers in Massachusetts have embraced referral networks comprised of high value providers as an opportunity to address costs. Initial analysis of this strategy based on state experience within a Massachusetts state employees plan has shown up to a 36% reduction in expenditures for patient panels that switch to a narrow network insurance plan.[86]

Encouraging a preferred and narrow network requires multidisciplinary leadership, systems and collaboration in primary care, medical and surgical specialties, behavioral health and the emergency department. Providers and patients need to feel confident that the choice in care is patient-centered and high-quality. Integration and clinical teams will work to develop relationships and business arrangements to align the value-based interests of non-traditional caregivers often critical during care transitions such as VNAs and SNFs. This initiative will expand the capacity of the public hospital's medical, surgical and behavioral health specialists to coordinate and manage referrals internally, including redirected referrals from higher cost, lower-value external referrals. Toward this end, this initiative will focus on monitoring and improving the rate of referrals within the public hospital system and with in-network clinical affiliates, and measures of quality, productivity and access to specialists.

In addition, this initiative will refine emergency department (ED) and inpatient case management capabilities to offer alternative treatment modalities and community-based care to patients who do not need admission. This initiative will expand e-consults beyond tele-dermatology based on success and evidence from both the public hospital and other systems in order to increase access to consultations with specialists, reduce cost and enable more capacity for face-to-face visits

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[85]Examination of Health Care Cost Trends and Cost Drivers Pursuant to G.L. c. 12, § 11N Report for Annual Public Hearing Under G.L. c. 6D, § 8

[86]Gruber J, & McKnight R. (2014). Controlling health care costs through limited network insurance plans: Evidence from Massachusetts state employees." NBER working paper #20462.

Initiative Title	3. Referral Management and Integrated Care Management

when appropriate.[87] This initiative may also focus on facilitating transportation to in-network care providers for patients who lack transportation by utilizing a non-medical transportation support service. Convenience and effectiveness also drives efforts to examine and take advantage of text-messaging in care management. Evidence for the potential of text messages providing improvements in disease prevention and management interventions have been observed for weight loss, smoking cessation, and diabetes management. These effects appeared to exist among adolescents and adults, among minority and non-minority populations, and across nationalities.[88]

Goals/Objectives

This initiative will use referral and outmigration processes to drive high value, coordinated care for patients and advance Accountable Care Organization (ACO), total cost of care strategies, and increased retention of appropriate care within the public hospital system.

- Improve patient care coordination, continuity of care, and referral to services within a high value, clinically integrated network with emphasis on the public hospital system, other community-based services, and with clinical affiliates.
- Increase access and efficiency of the public hospital system's clinical services by retaining services when appropriate.
- Reduce out-migration of inpatient and ED services for patient panel to non-public hospital facilities, where appropriate. Preliminary analysis of Medicaid inpatient stays and ED utilization outside the public hospital system confirms the opportunity to improve performance through care coordination within integrated community networks. Data reveals that a significant portion of inpatient care (up to 60%) and ED visits (up to 30%) across various payor cohorts occur outside of the system, frequently at higher-cost institutions, which add cost and care fragmentation.
- Support the delivery of care by the right provider, in the right care setting and at the right time by reducing care received outside of the public hospital system when clinically indicated and increasing access to specialty health care and other community-based services outside of the acute care setting.
- Promote alternate care modalities, as clinically appropriate, as options in lieu of avoidable emergency department and/or inpatient care.
- Launch innovations, such as e-consults, patient care communications/messaging, and patient transportation options to overcome barriers to access to ambulatory care and promote patient self-management of their health conditions.
- Encourage in-depth clinical collaborations and the use of defined provider partnerships, including VNAs, SNFs, and substance use treatment.
- Advance total cost of care strategies.

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[87]Utilization, Benefits, and Impact of an e-Consultation Service Across Diverse Specialties and Primary care. Liddy et al. Telemedicine and e-Health 2013 Apr; 19(10):733-738

[88]Text Messaging as a Tool for Behavior Change in Disease Prevention and Management. Epidemiology Reviews 2010 Apr; 32(1) 56-59

Core Components

This initiative if undertaken, may include the following components:
1. Build on current on specialty care coordination within the public hospital system and advance up to three specialty access improvement initiatives along measurable dimensions for timeliness of appointments, access, quality, and reduction in out-of-network specialty care referrals.
2. Develop capabilities for referral systems for mental health and substance use disorder services within the public hospital system and a coordinated care network.
3. Encourage patients to receive care at the public hospital system for inpatient, ED, and specialty services or at high-value preferred partners when clinical conditions such as tertiary care are beyond the scope of the public hospital system.
    -   Engage case management in the ED to organize home-based services tailored to the needs of the patient such as community-based integrated transition facilitators, visiting nurses, and/or home visits by nurse practitioners to ensure post-ED aftercare is in place. This builds on the ED committment to providing the highest and most needs-sensitive care possible for patient populations and fosters clinical partnerships with post-ED community-based providers.
    -   Patient education by public hospital system primary care teams to reinforce the value and care coordination benefits of "staying within the public hospital system" campaign. This may include patient education materials and after visit summaries that emphasize referrals and follow-up appointments.
    -   Use recent and ongoing surveys of public hospital system specialists and primary care teams to develop and communicate standardized specialty-specific key interventions prior to a referral which makes the specialty visit more productive and may prevent avoidable referrals or tests.
    -   Review patterns of referrals by primary care region, referring provider, and specialty to determine opportunities to influence decisions to utilize the public hospital system whenever possible.
4. Leverage effective post-acute and community-based providers to address gaps in care or to increase care coordination.
    a. Define, develop and refine formal agreements with post-acute providers, such as VNAs, SNFs and detoxification facilities, with both programmatic support and skilled clinical personnel.
5. Develop transportation solutions (such as Uber / Lyft / taxi) for patients to ensure that they can make their scheduled medical appointments and to facilitate usage of the appropriate facilities and network of providers.
6. Execute newly designed mobile paramedic program which may deploy highly skilled paramedics to the home to assess and evaluate patients with the goal to match the patient's needs with the appropriate level of care, thereby allowing patients to remain in the community and avoid potentially preventable emergency and inpatient utilization when appropriate.
7. Develop tools and processes for active referrals to mental health and addictions providers
8. Further expand the electronic platform for consultations (e-consults) to maximize specialty access and minimize patient inconvenience and cost.

9. Establish patient communication tools to enhance care coordination such as enhanced use of the patient portal platform of electronic medical record (EMR) as well as texting programs for care management, care coordination and appointment reminders.
10. Expand preferred provider relationships to include clinical services not provided at the public hospital system and include these in the EMR Referral Guidance directory in order to maximize quality and clinical connectivity.
11. Engage an appropriate leadership team including multidisciplinary stakeholders on referral management work.
12. Refine existing patient attribution and outreach efforts to identify and schedule appointments with new or unengaged patients.
13. Restructure primary care triaging processes to address patients' immediate and urgent care needs.
14. Continue to develop/refine reporting tools to support referral management work.
15. Develop, adopt, and monitor referral management policies and procedures that align with defined ACO strategies (such as escalation for ED transfers, etc).
16. Identify practice region and specialty-specific challenges to adopting referral management policies and tailor support to these issues beyond system-wide infrastructure.
17. Support staff and providers in referral management efforts to achieve quality outcomes when they are linked to access.

					Achieve 2 of 5 Measures	Achieve 4 of 10 Measures	Achieve 7 of 13 Measures	Achieve 6 of 10 Measures	Achieve 8 of 13 Measures	

Required Measure Slate: Improvement and Outcomes Measures
(Achieve 2 out of 5 in Year 1, 4 of 10 Outcome Measures in Year 2, 7 out of 13 in Year 3, 6 out of 10 in Year 4, and 8 out of 13 in Year 5).

Measure Slate 3		3: Referral Management and Integrated Care Management			Achieve 2 of 5 Measures	Achieve 4 of 10 Measures	Achieve 7 of 13 Measures	Achieve 6 of 10 Measures	Achieve 8 of 13 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
1	Overall Reduce proportion of Emergency Department Outmigration to Non-Public Hospital System Facilities within specific payer contracts	Customized Measure: Claims based (units of service)[89]	No external benchmark; hospital specific improvement target = 25%	Gap to Goal (10%) or attainment at target	**B** (CY2016)	**O** (CY2018)	**O** (CY2019)	**O** (CY2020)	**O** (CY2021)	Target of 25% informed by out-migration improvement opportunity
2	Overall Reduce proportion of Inpatient Outmigration to – Public Hospital System Facilities within specific payer contracts	Customized Measure: Claims based (units of service)[5]	No external benchmark; hospital specific improvement target = 50%	Gap to Goal (10%) or attainment at target	**B** (CY2016)	**O** (CY2018)	**O** (CY2019)	**O** (CY2020)	**O** (CY2021)	Target of 50% informed by out-migration improvement opportunity
3	Overall Reduce proportion of out-of-network Medical & Surgical specialty referrals (outpatient)	Customized Measure	No external benchmark; hospital specific improvement target = 10%	Gap to Goal (10%) or attainment at target	**O** (4/1/17 - 3/31/18)	**O** (4/1/18 - 3/31/19)	**O** (4/1/19 - 3/31/20)	**O** (4/1/20 – 3/31/21)	**O** (4/1/21 - 3/31/22)	Target of 10% informed by out-of-network referral improvement opportunity
4	Selected Public Hospital Primary Care Practice(s) Initiative: Primary care reduce proportion of out-of-network Medical & Surgical specialty referrals (outpatient) referrals	Customized Measure	No external benchmark; hospital specific improvement target = 10%	Gap to Goal (10%) or attainment at target	**B** (4/1/17 - 3/31/18)	**O** (4/1/18 - 3/31/19)	**O** (4/1/19 - 3/31/20) Initial Practice (s)	**O** (4/1/20 – 3/31/21)	**O** (4/1/21 - 3/31/22)	Target of 10% informed by out-of-network referral improvement opportunity
					Initial Practice (s)	Initial Practice (s)	New Practice (s)	New Practice (s)	New Practice (s)	

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[89]Baseline and outcome measures are dependent on stable populations and relevant claims data. Should there be material changes in populations, payor contracts and access to claims data these measures will need to be re-based.

Baseline (B) / Outcome and Improvement (O)

Required Measure Slate: Improvement and Outcomes Measures _(Achieve 2 out of 5 in Year 1, 4 of 10 Outcome Measures in Year 2, 7 out of 13 in Year 3, 6 out of 10 in Year 4, and 8 out of 13 in Year 5)._									
Measure Slate 3		**3: Referral Management and Integrated Care Management**			**Achieve 2 of 5 Measures**	**Achieve 4 of 10 Measures**	**Achieve 7 of 13 Measures**	**Achieve 6 of 10 Measures**	**Achieve 8 of 13 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2022**	**Rationale for Improvement Target**
5	Reduce the proportion of out-of-network referrals for selected specialty care areas within the public hospital system: (SFY 2018 will continue Gastroenterology) (SFYs 2019 – 2020 will be a 2nd Specialty Area) (SFYs 2021 – 2022 will be a 3rd Specialty Area)	Customized Measure	No external benchmark; hospital specific improvement target (Gastroenterology = 6%; Applicable to SFY 2018) New Specialty Target will be submitted with baseline data for each new specialty	Gap to Goal (10%) or attainment at target	**O** (4/1/17 - 3/31/18)	**B** (4/1/18 - 3/31/19)	**O** (4/1/19 - 3/31/20)	**B** (4/1/20 - 3/31/21)	**O** (4/1/21 - 3/31/22)	Target for new specialties will be specified at the time of the selection of the specialty and reported with baseline data
					Gastroenterology	New Specialty 1	New Specialty 1	New Specialty 2	New Specialty 2	
6	Completed appointments per FTE or total number of completed appointments for selected specialties within the public hospital system: (SFY 2018 will continue Gastroenterology) (SFYs 2019 – 2020 will be a 2nd Specialty Area) (SFYs 2021 – 2022 will be a 3rd Specialty Area)	Customized Measure	No external benchmark; hospital specific improvement target (Gastroenterology = 1300 appointments per FTE; Applicable to SFY 2018) New Specialty Target will be submitted with baseline data for each new specialty	Gap to Goal (10%) or attainment at target	**O** (4/1/17 - 3/31/18)	**B** (4/1/18 - 3/31/19)	**O** (4/1/19 - 3/31/20)	**B** (4/1/20 - 3/31/21)	**O** (4/1/21 - 3/31/22)	Target for new specialties will be specified at the time of the selection of the specialty and reported with baseline data
					Gastroenterology	New Specialty 1	New Specialty 1	New Specialty 2	New Specialty 2	
7	Time to first appointment: percentage of referrals to scheduled within 60 days for selected specialties within	Customized Measure	No external benchmark; hospital specific improvement target (Gastroenterology=50%;	Gap to Goal (10%) or attainment at target	**O** (4/1/17 - 3/31/18)	**B** (4/1/18 - 3/31/19)	**O** (4/1/19 - 3/31/20)	**B** (4/1/20 - 3/31/21)	**O** (4/1/21 - 3/31/22)	Target for new specialties will be specified at the time of the selection of the specialty and

Required Measure Slate: Improvement and Outcomes Measures									
(Achieve 2 out of 5 in Year 1, 4 of 10 Outcome Measures in Year 2, 7 out of 13 in Year 3, 6 out of 10 in Year 4, and 8 out of 13 in Year 5).									
Measure Slate 3		**3: Referral Management and Integrated Care Management**			**Achieve 2 of 5 Measures**	**Achieve 4 of 10 Measures**	**Achieve 7 of 13 Measures**	**Achieve 6 of 10 Measures**	**Achieve 8 of 13 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2022**	**Rationale for Improvement Target**
	the public hospital system: (SFY 2018 will continue Gastroenterology) (SFYs 2019 – 2020 will be a 2nd Specialty Area) (SFYs 2021 – 2022 will be a 3rd Specialty Area)		Applicable to SFY 2018) New Specialty Target will be submitted with baseline data for each new specialty		Gastroenterology	New Specialty 1	New Specialty 1	New Specialty 2	New Specialty 2	reported with baseline data
8	Increase the # of E-Consults referrals made by public hospital primary care providers to defined public hospital specialists	Customized Measure	No external benchmark; hospital specific improvement over SFY 2018 baseline	Defined improvement over SFY 2018 baseline	**B** (4/1/17 - 3/31/18)	**O** 10% improvement over SFY18 baseline (4/1/18 - 3/31/19)	**O** 20% improvement over SFY18 baseline (4/1/19 - 3/31/20)	**O** 30% improvement over SFY18 baseline (4/1/20 - 3/31/21)	**O** 40% improvement over SFY18 baseline (4/1/21 - 3/31/22)	Increased access for consultative services to facilitate care and access for patients to critical specialties
9	Demonstrate improvement in colorectal cancer screening rates (for active pubic hospital primary care patients)	NQF 0034	National (HEDIS) Commercial 2014 90th percentile = 72%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	

Baseline (B) / Outcome and Improvement (O)

Required Measure Slate: Improvement and Outcomes Measures *(Achieve 2 out of 5 in Year 1, 4 of 10 Outcome Measures in Year 2, 7 out of 13 in Year 3, 6 out of 10 in Year 4, and 8 out of 13 in Year 5).*									
Measure Slate 3		**3: Referral Management and Integrated Care Management**			**Achieve 2 of 5 Measures**	**Achieve 4 of 10 Measures**	**Achieve 7 of 13 Measures**	**Achieve 6 of 10 Measures**	**Achieve 8 of 13 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2022**	**Rationale for Improvement Target**
10	Improvement in inpatient discharge referral rate to in-network skilled nursing facilities for Medical/Surgical inpatients discharged from the public hospital system	Numerator: Discharges to In-Network SNFs Denominator: Medical/ Surgical Inpatient Discharges from the Public Hospital System to all SNFs[90]	No external benchmark; hospital specific improvement target= 75%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Appropriate post acute placement of patients based on clinical need
11	Improvement in inpatient discharge referral rate to in network Visiting Nurse Association (VNAs) Medical/Surgical inpatients discharged from the public hospital system	Numerator: Discharges to In-Network VNAs Denominator: Medical/ Surgical Inpatient Discharges from the Public Hospital System to all VNAs[91]	No external benchmark; hospital specific improvement target = 80%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Appropriate post acute community-based care for patients based on clinical need

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[90] Any Visiting Nurses Association (VNA) with whom public hospital system has a signed preferred provider agreement. Preferred provider relationships are evaluated annually and are subject to change if VNAs are not in compliance with the terms of the agreement. Changes in preferred VNA relationships may require a rebasing of the measures.

[91] Any Skilled Nursing Facility (SNF) approved by the public hospital network development committee as being "in-network" at any point during the measurement year. The network development committee oversees the collaborative relationships in which the public hospital system participates. The committee abides by specific principles related to access, continuity of care, communication expectations and quality improvement. Changes to in-network SNF relationships may require a rebasing of the measures.

Baseline (B) / Outcome and Improvement (O)

Required Measure Slate: Improvement and Outcomes Measures
(Achieve 2 out of 5 in Year 1, 4 of 10 Outcome Measures in Year 2, 7 out of 13 in Year 3, 6 out of 10 in Year 4, and 8 out of 13 in Year 5).

Measure Slate 3		3: Referral Management and Integrated Care Management			Achieve 2 of 5 Measures	Achieve 4 of 10 Measures	Achieve 7 of 13 Measures	Achieve 6 of 10 Measures	Achieve 8 of 13 Measures	
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
12	% of patient appointments at which the AVS was printed for the patient at the conclusion of their medical specialty appointment at the public hospital system	MU P220	No external benchmark; hospital specific improvement	Gap to Goal (10%) or attainment at target: Target 90%	**B** (4/1/17 - 3/31/18)	**O** (4/1/18 - 3/31/19)	**O** (4/1/19 - 3/31/20)	**O** (4/1/20 - 3/31/21)	**O** (4/1/21 - 3/31/22)	Target of 90% established based on clinical operations standards, taking into account the spectrum of patient routine and urgent visit types
13	% of patient appointments at which the AVS was printed for the patient at the conclusion of their surgical appointment at the public hospital system	MU P220	No external benchmark; hospital specific improvement	Gap to Goal (10%) or attainment at target: Target 90%	**B** (4/1/17 - 3/31/18)	**O** (4/1/18 - 3/31/19)	**O** (4/1/19 - 3/31/20)	**O** (4/1/20 - 3/31/21)	**O** (4/1/21 - 3/31/22)	Target of 90% established based on clinical operations standards, taking into account the spectrum of patient routine and urgent visit types

Baseline (B) / Outcome and Improvement (O)

Initiative Title	4. Evidence-Based Practices for Medical Management of Chronic Conditions
Description/Rationale	

Evidence Based Medicine (EBM) is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.[92] The goal is to improve outcomes, quality, and cost by reducing the variation of care for key conditions and integrate EBM into the health care delivery system across the continuum. The concept of variation of care was outlined in the 2010 Dartmouth Institute's reflections on geographic variations[93]; however, a similar deviation from EBM and variations in care may also be observed *within* health care systems and practices, acknowledging natural differences between patients. Toward safer, higher-quality care, redesigned systems of care, including the use of information technology, can best support clinical and administrative processes to adopt EBM and improve patient outcomes.[94]

Efforts to change the culture of medical practice to adopt EBM include education on recommendations from peer-reviewed groups such as Cochrane or the U.S. Preventive Services Task Force (USPTF), integration of EBM into clinical activities via clinical decision support (CDS), and the application of population health data to prioritize and subsequently develop systems to close quality gaps.[95]

Building on systematic efforts in medical management such as those sponsored by the Institute for Health Care Improvement learning collaborative known as "Pursuing Perfection"[96] and foundational transformation work under the current Waiver, planned future initiatives build on capabilities to develop and use population health databases, risk stratify patients, and help connect the most costly and vulnerable patients with complex care management, transitional facilitators, and palliative care services.

Evidence-based patient engagement strategies may include those such as motivational interviewing in chronic health conditions and for substance use disorders, electronic medical record clinical decision support for chronic conditions and prevention, expansion of nursing, pharmacist, and other care team member roles in chronic disease management, and mental health team integration within primary care. Initiatives may include refining tools, frameworks, analytics, and clinical workforce development in the use of evidence-based guidelines across the care continuum to care for specific populations of patients. A goal is to "hard wire" enhanced quality by utilizing evidence-based practices to support providers and patients in making informed decisions about treatments, medications, risks, costs, and benefits.[97]

[92]Sackett DL, Rosenberg WMC, Gray JAM et al. Evidence-based medicine: what it is and what it isn't. Br Med J 1996;312:71-72

[93]Jonathan Skinner and Elliott S. Fisher "Reflections on Geographic Variations in U.S. Health Care,", The Dartmouth Institute for Health Policy & Clinical Practice, updated May 12

[94]Crossing the Qulity Chasm: A New Health System for the 21st Century Institute of Medicine 2001

[95]McCarthy, Mueller, Wrenn. Geisinger Health System: Achieving the Potential of System Integration through Innovation, Leadership, Measurement, and Incentives. The Commonwealth Fund, Case Study Organized Health Care Delivery System June 2009

[96]Pursuing Perfection: Raising the Bar for Healthcare Performance Robert Wood Johnson Foundation Results Report Grant ID: CPC Updated January 10, 2014

[97]Remarks by Carolyn Clancy, M.D., Director of the Agency for Healthcare Research and Quality (AHRQ) World Healthcare Innovation and Technology Congress, Washington, DC, November 1, 2006

Initiative Title	4. Evidence-Based Practices for Medical Management of Chronic Conditions

Goals/Objectives

A medical management program is one of the pillars of health care reorganization to function effectively as an Accountable Care Organization (ACO) to improve population health outcomes. Medical management programs aim to develop and implement evidence-based clinical guidelines for populations of patients with particular conditions to ensure the right care at the right time in the right context and produce optimal outcomes for quality, safety, cost, and experience. Efforts will focus on improving care and reducing cost for populations of patients with five conditions: chronic obstructive pulmonary disease; congestive heart failure; hypertension; diabetes; and pediatric asthma.

Specific objectives may include:

- Improve health indicators for primary care panel patients with selected chronic health conditions (which may include chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), hypertension, diabetes, and pediatric asthma), including those with co-occurring mental health conditions and substance use disorders;
- Improve transitions in care and reduce avoidable hospital readmission for patients with targeted chronic health conditions;
- Foster advance care planning and use of palliative care services for patients with advanced stage illness related to the targeted chronic health conditions;
- Articulate institutional evidence-based guidelines for selected chronic health conditions for care across the continuum (self care, primary care, specialty care, emergency department and hospital care) that recognize the importance of attention to co-occurring mental health needs and the social determinants of health;
- Embed evidence-based guidelines into standard workflows and the electronic medical record;
- Train key staff and providers in population health management skills and improving multidisciplinary collaboration and team-based across the care continuum including thoughtful engagement of pharmacists, nurses, and other allied health professionals.
- Engage patients and families as design partners and in effective self management of their health condition(s) through multidisciplinary health education and coaching;
- Develop a registry that permits risk stratification and monitoring of adherence to care guidelines;
- Evaluate medical management programs for chronic conditions to determine successful management for decreases in the rate of hospitalization, re-hospitalization, emergency department (ED utilization), and total medical expense, based on the availability of claims data for payer populations;
- Adhere to evidence-based guidelines in selected targeted conditions (COPD, CHF, hypertension, and/or diabetes) that include adherence to nationally validated measures for clinical care processes and treatments; and
- Advance team-based care within a patient centered medical home model with a distinctive approach to medical management that recognizes the importance of integrated mental health care and attention to the social determinants of health.

Core Components

This initiative, if undertaken, may include the following components:
We plan to develop and implement medical management programs for targeted conditions in a staggered fashion over a 5-year period.

1. Essential elements for evidence-based disease management program (s), based on a review of the literature and from experience may include the following:

Initiative Title	4. Evidence-Based Practices for Medical Management of Chronic Conditions

- Engage an appropriate leadership team including multidisciplinary clinical stakeholders as well as patients and families;
- Identify key evidence-based practices from review of literature;
  - Build an understanding of the population of patients with the target condition through review of both quantitative and qualitative data;
  - Design strategies for embedding best practices into clinical workflows across the care continuum and build appropriate decision support strategies within the electronic medical record integrating innovative technology platforms whenever possible;
  - Develop materials and forums for enhancing patient and family understanding of the condition and capacity for self care, including the use of care planning with patients and families for selected conditions;
- Develop and use a registry database for risk stratification, for use in identifying and closing gaps in care, and for use in monitoring adherence to best practices;
- Support staff and providers to learn and use new skills in population health management, in multidisciplinary team-based care and collaboration, and in care-giving relationships with patients that enable self care through coaching and goal setting;
  - Build referral pathways to special programs for high risk patients such as complex care management, house calls for frail homebound patients, elder services, palliative care, and emerging partnerships with home care services, skilled nursing facilities, and other community-based partnerships.

2. Improve transitions in care for patients with chronic health conditions with a focus on reducing 30 day hospital readmission through timely follow up phone calls, clinic visits, and home visits after inpatient hospitalization and emergency department visits.

3. Continue to cultivate institutional improvement work in chronic disease management in primary care and through patient-centered medical homes in primary care and expand population health management tools and team-based care into medical specialty clinics.

4. Adopt a holistic approach to chronic disease management that includes attention to mental health and substance abuse, with expanded screening and treatment for depression and appropriate referral to special programs such as the behavioral health home, integrated mental health providers within primary care, and multi-level substance abuse treatment supports, to address the high burden of co-morbid mental health and substance abuse with the target population(s).

5. Evaluate medical management programs for chronic conditions to determine successful management for decreases in the rate of hospitalization, re-hospitalization, emergency department (ED utilization), and total medical expense, based on the availability of claims data for payer populations.

6. Improve end of life care for patients with chronic conditions including more frequent use of advanced directives and referral to specialized palliative care services.

Required Measure Slate: Improvement and Outcomes Measures *(Achieve 2 of 3 Outcome Measures in Year 1, 4 out of 13 in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, 8 out of 13 in Year 5).*									
Measure Slate 4		**4: Evidence-Based Practices for Medical Management of Chronic Conditions**		**Achieve 2 of 3 Measures**	**Achieve 4 of 13 Measures**	**Achieve 7 of 13 Measures**	**Achieve 8 of 13 Measures**	**Achieve 8 of 13 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2022**	**Rationale for Improvement Target**
	Chronic Obstructive Pulmonary Disease (COPD)									
1	The percentage of active primary care patients 40 years of age and older with a new diagnosis of COPD or newly active COPD, who received appropriate spirometry testing to confirm the diagnosis.	NQF 0577	2015 90th percentile National Medicaid = 47.0%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target reflects the 2015th 90th Percentile National Medicaid.
2	Percentage of active primary care patients aged 18 years and older with a diagnosis of COPD and who have an FEV1/FVC < 60% and have symptoms who were prescribed an inhaled bronchodilator.	NQF 102	2015 90th percentile National Medicaid= 90.0%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target reflects the 2015th 90th Percentile National Medicaid.
3	Improve the percentage of patients with COPD who received patient education for COPD by a member of their inpatient care team prior to discharge (across public hospital's inpatient hospital campuses)	Customized Measure	No external benchmark; hospital specific improvement target = 85%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	Target of 85% reflects best practice adoption of the required workflows.
	Congestive Heart Failure (CHF)									
4	Improve the percentage of patients with CHF who received patient education for CHF by a member of their inpatient care team prior to discharge (across public hospital's inpatient hospital campuses)	Customized Measure	No external benchmark; hospital specific improvement target = 85%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	Target of 85% reflects best practice adoption of the required workflows.
	Diabetes									

Baseline (B) / Outcome and Improvement (O)

Required Measure Slate: Improvement and Outcomes Measures *(Achieve 2 of 3 Outcome Measures in Year 1, 4 out of 13 in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, 8 out of 13 in Year 5).*									
Measure Slate 4		**4: Evidence-Based Practices for Medical Management of Chronic Conditions**		**Achieve 2 of 3 Measures**	**Achieve 4 of 13 Measures**	**Achieve 7 of 13 Measures**	**Achieve 8 of 13 Measures**	**Achieve 8 of 13 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2022**	**Rationale for Improvement Target**
5	Diabetes: HbA1c Control- % of active primary care patients ages 18 to 75 with diabetes whose most recent HbA1c control is <8.0%	NQF 0575	2015 90th percentile National Medicaid: 59.0%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target reflects the 2015th 90th Percentile National Medicaid
6	Comprehensive Diabetes Care: Eye Exam (retinal) performed (for active primary care patients)	NQF 0055	2015 90th percentile National Medicaid: 68.0%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target reflects the 2015th 90th Percentile National Medicaid
7	Improve the proportion of active primary care patients 18-75 years of age with diabetes with poorly controlled Hemoglobin HbA1C (most recent >=8.0%) who have a care plan	NCQA	No external benchmark; hospital specific improvement Target = 75%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	Target of 75% is NCQA 2014 Medical Home Standard.
8	Percentage of high risk diabetic primary care patients receiving enhanced diabetes management services, including nursing-led patient education and self-management coaching, pharmacist-led medication management services, or other care team member support.	Customized Measure (denominator linked to NQF 0575)	No external benchmark; hospital specific improvement target	Improvement over SFY 2018 baseline SFY 19: Improve 2% over SFY 2018 baseline SFY 20: Improve 4% over SFY 2018 baseline SFY 21: Improve 6% over SFY 2018 baseline SFY 22: Improve 8% over SFY 2018 baseline	**B**	**O**	**O**	**O**	**O**	Target reflects roll-out implementation and capacity for new workflows.
	Hypertension (HTN)									

Required Measure Slate: Improvement and Outcomes Measures *(Achieve 2 of 3 Outcome Measures in Year 1, 4 out of 13 in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, 8 out of 13 in Year 5).*									
Measure Slate 4		**4: Evidence-Based Practices for Medical Management of Chronic Conditions**			**Achieve 2 of 3 Measures**	**Achieve 4 of 13 Measures**	**Achieve 7 of 13 Measures**	**Achieve 8 of 13 Measures**	**Achieve 8 of 13 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2022**	**Rationale for Improvement Target**
9	Percentage of high risk hypertensive primary care patients receiving enhanced hypertension management services, including nursing-led patient education and self-management coaching, pharmacist-led medication management services, or other care team member support.	Customized Measure	No external benchmark; hospital specific improvement target	Improvement over SFY 2018 baseline SFY 19: Improve 2% over SFY 2018 baseline SFY 20: Improve 4% over SFY 2018 baseline SFY 21: Improve 6% over SFY 2018 baseline SFY 22: Improve 8% over SFY 2018 baseline	**B**	**O**	**O**	**O**	**O**	Target reflects roll-out implementation and capacity for new workflows.
Composite Measures										
10	Hospitalization Follow-up: The percentage of discharges for patients 18 years of age and older (with any of the following conditions Diabetes, Hypertension COPD, and/or CHF) who were discharged to home from public hospital's medical/surgical inpatient services and who had an outpatient visit within 7 days or contact within 2 days with a care team member documented in EMR.	Customized Measure	No external benchmark; hospital specific improvement target = 80%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target derived to improve follow up after hospitalization for chronic health conditions

Baseline (B) / Outcome and Improvement (O)

	Required Measure Slate: Improvement and Outcomes Measures *(Achieve 2 of 3 Outcome Measures in Year 1, 4 out of 13 in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, 8 out of 13 in Year 5).*									
	Measure Slate 4	**4: Evidence-Based Practices for Medical Management of Chronic Conditions**			**Achieve 2 of 3 Measures**	**Achieve 4 of 13 Measures**	**Achieve 7 of 13 Measures**	**Achieve 8 of 13 Measures**	**Achieve 8 of 13 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2022**	**Rationale for Improvement Target**
11	% of active primary care patients 3 years and older with the following conditions: Diabetes, Pediatric Asthma, Hypertension, COPD, and CHF, for whom a public hospital follow-up contact or visit is completed within seven calendar days post ED discharge	Customized Measure	No external benchmark; hospital specific improvement target =50%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target derived to improve follow up after ED visits for chronic health conditions
12	Screening for Depression in active primary care patients 18 years and older with Diabetes, HTN, CHF, and/or COPD	Approximate Match- NQF 0418 (Adjusted for Chronic Conditions at high risk)	No external benchmark; hospital specific improvement target = 80%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target derived to improve depression screening for patients with chronic health conditions at high risk..
13	Co-morbid Conditions: Depression Follow-Up in active primary care patients with Diabetes, HTN, CHF, and/or COPD	Customized Measure	No external benchmark; hospital specific improvement target = 60%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target derived to improve follow up for depression care for patients with chronic health conditions.

Initiative Title	5. Community Empowered Population Health Initiative (Not Selected)
Description/Rationale	

The Community Empowered Population Health Initiative builds and supports systems to address social determinants of health (SDH) and to address health disparities in patients with chronic conditions. This may be accomplished by implementing a screening and referral system for SDH, leveraging close ties with social service agencies, strengthening communities through collaboration with community and governmental agencies, and developing systems to improve chronic disease disparities.

The initiative is in recognition that social, behavioral and environmental factors account for 70% of what it takes to stay healthy while only 10% are attributable to direct medical care.[98] According to the Institute of Medicine, "an aligned system with a strong interface among public health, health care, and the community and non health sectors could produce better prevention and treatment outcomes for populations living with chronic illness."[99] Understanding the critical role of SDH, Healthy People 2020 highlights the importance of addressing the social determinants of health by including "Create social and physical environments that promote good health for all" as one of the four overarching goals for the decade.[100] Based on emerging evidence that addressing social needs through enhanced clinical-community linkages can improve health outcomes and reduce costs, CMS has prioritized addressing SDH through the Accountable Health Communities model to address critical gaps between clinical care and community services.[101] The initiative also recognizes that health disparities have persisted for families and communities that have systematically experienced social and economic disadvantage and consequently face greater obstacles to optimal health. In appreciation of the importance of addressing health disparities, CMS has laid out work.[102,103]

Improving SDH and health disparities requires supporting communities in addressing their health needs, implementing screening and referral processes to social service agencies and building programs that identify and address health disparities. Community health improvement teams will work with community based organizations and governmental entities to support their efforts to improve community health. Clinical and community health improvement teams will work together to screen for SDH, refer patients with social needs to existing community services, and rescreen patients with social needs. Clinical and community health improvement teams will also work closely to identify populations with disproportionately higher rates of poor control of chronic health conditions, monitor and improve their care through ensuring they receive interventions such as education, outreach, and linkage to primary, specialty and other ambulatory care services.

| **Goals/Objectives** | |

This initiative will build on community relationships and clinical care infrastructure to drive coordinated care across the medical to community continuum for panel patients and to improve the health of the communities we serve. The initiative aims to increase screening for social determinants of health, referral to social service agencies, and improvement in chronic disease care for patients with disproportionately lower rates of chronic disease control. Thus, this project is intended to support high quality patient-centered care by more completely addressing the full spectrum of needs for patients. This will in turn support efforts to improve the health of patients and communities.

Specific objectives include:

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[98]McGinnis et al. The Case for More Active Policy Attention to Health Promotion. Health Affairs 2002: 21(2); 78-93

[99]IOM. Living well with chronic illness: a call for public health action. Washington, DC: The National Academies Press; 2012

[100]Healthy People 2020. https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health

[101]Alley DE, et al. Accountable Health Communities — Addressing Social Needs through Medicare and Medicaid. N Engl J Med 2016; 374:8-11.

[102]CMS. CMS Equity Plan for Improving Quality in Medicare. Sept 2015. https://www.cms.gov/About-CMS/Agency-Information/OMH/OMH_Dwnld-CMS_EquityPlanforMedicare_090615.pdf

[103]CMS. https://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/quality-of-care-health-disparities.html

Initiative Title	5. Community Empowered Population Health Initiative (Not Selected)

- Address social determinants of health through screening of defined patient panel population in order to refer to responsive community and social services
- Increase use of social determinant screening tools and implement follow-up rescreening to assess social determinants of health and progress made through active referrals to community and social supports.
- Develop systems for referrals to community and social service organizations.
- Explore and initiate the use of innovative technologies for social determinant screening, referrals to community and social service resources, patient education and/or self-management support.
- Evaluate patient panel for health disparities as defined by disproportionately higher rates of poor control of chronic health conditions such as hypertension and diabetes control to select target population(s) for improvement initiatives.
- As measured by nationally validated measures for hypertension control and diabetes blood glucose control, monitor and improve health outcomes for targeted patient population(s) identified with disproportionately poorer control of their health condition.
- Develop and implement patient-centered education, outreach, and/or other interventions to support the effective management of chronic health conditions.
- Increase community-based, primary care, specialty care, complex care management and ambulatory care utilization for targeted patient populations with higher rates of poor control of their chronic health condition.
- Foster community partnerships that link community and public health with patient panel health promotion initiatives.

Core Components

This initiative, if undertaken, may include the following components:
1. Build systems to screen for social determinants of health across defined patient panel population segment(s), such as vulnerable patients with chronic conditions and/or behavioral health conditions, high risk/ high utilizers, clinical practice sites and/or others.
2. Identify social determinant(s) tools and develop and implement processes for screening and follow-up rescreening to assess social determinants of health and progress made through active referrals to community and social supports.
    - Implementation of innovative technology for initial and reassessment of social determinants of health for selected patient populations.
3. Develop and implement a referral system to community and social services and supports, which may include a range of services such as organizations addressing food insecurity, housing concerns, legal assistance. Establish relationships and referral systems with community services and social services organizations in order to refer patients for services, including those who have been screened for social determinants of health.
4. Based on an assessment of patient populations with disproportionately poorer outcomes on effective control of health conditions such as hypertension and diabetes, develop strategies which may include small tests of change and other population-specific initiatives, to improve how the health care delivery system in partnership with community and social services support patients in managing their health condition(s) and impacts the defined health outcome measure(s).
5. Implement and measure the proportion of patients in the defined patient panel population(s) with disproportionately poorer health outcomes for hypertension and diabetes control that receive patient education, outreach, or another intervention to support effective chronic health condition management.
6. Devise and implement activities to increase primary care and other ambulatory care utilization for the defined patient population(s) with health disparities as a usual source of care.
7. Build on relationships with communities to:
    - Provide communities with information about the health and well being of their community by providing a health assessment in targeted communities

Initiative Title	5. Community Empowered Population Health Initiative (Not Selected)
	• Provide educational programs in the targeted communities on topics to prevent or address chronic medical conditions, such as hypertension/heart health, diabetes, chronic obstructive pulmonary disease, asthma, and/or mental health and substance use. • Foster community and clinically-linked population efforts through ongoing collaborations with community, public health and social services organizations to discuss common health priorities, the needs of their communities and to work together on responsive efforts. • Work with community, public health and social services organizations to support efforts to address healthy living, physical activity, nutrition and mental illness/substance abuse • Incorporates social service partners into care planning, coordination and case review efforts to facilitate resolution of identified social determinants for specific regionally-based patient populations.

Required Measure Slate: Improvement and Outcomes Measures – (Not Selected)										
(Achieve 3 of 9 Outcome Measures in Year 2, 5 of 9 in Year 3, 5 of 9 in Year 4, and 6 of 9 in Year 5).										
Measure Slate 5		**5: Community Empowered Population Health Initiative**			**Baseline**	**Achieve 3 of 9 Measures**	**Achieve 5 of 9 Measures**	**Achieve 5 of 9 Measures**	**Achieve 6 of 9 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2022**	**Rationale for Improvement Target**
1	**Social Determinant Screenings:** Utilizing implemented social determinant(s) screening tool, increase percentage of defined patient panel population segment(s) (such as patients with chronic conditions and/or behavioral health conditions, high risk/high utilizers, specific primary or specialty practices) within the ACO/public payor population) screened for selected Social Determinants	Customized Measure	No external benchmark; hospital specific improvement target =70%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target is based on population screening measures for this new initiative.
2	**Referrals to Community and Social Services:** The percentage of defined patient panel screened for social determinant(s) (in measure 1 above) with referrals to community and social services and supports	Customized Measure	No external benchmark; hospital specific improvement target =60%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target is informed by referrals to community and social services.
3	**Expansion of Social Determinant Screening to Additional Patient Cohorts:** Expand patient panel subpopulations or practice sites whose patients receive social determinant screening	Customized Measure	No external benchmark; hospital specific target = Add at least 1 additional patient subpopulation or practice site per year	Defined Increase Per Year	B	O	O	O	O	Target based on phased implementation of new social determinants initiative.

Required Measure Slate: Improvement and Outcomes Measures – (Not Selected) *(Achieve 3 of 9 Outcome Measures in Year 2, 5 of 9 in Year 3, 5 of 9 in Year 4, and 6 of 9 in Year 5).*										
Measure Slate 5		**5: Community Empowered Population Health Initiative**			**Baseline**	**Achieve 3 of 9 Measures**	**Achieve 5 of 9 Measures**	**Achieve 5 of 9 Measures**	**Achieve 6 of 9 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2022**	**Rationale for Improvement Target**
4	**Follow-up Social Determinant Screening:** Percentage of identified & active patient panel populations with follow-up social determinant(s) rescreening for appropriate determinants	Customized Measure	No external benchmark; hospital specific improvement Target= 50%	Gap to Goal (10%) or attainment at target		B	O	O	O	Rescreening rates to begin in year two to measure presence or resolution of social determinants
5	**Reducing Health Disparities for Hypertension:** Controlling High Blood Pressure Measure (2015 HEDIS Definition) for defined patient panel population(s) with disproportionately poorer outcomes for good control of hypertension	NQF 0018 (for hospital-defined patient panel population(s) with health disparities	MA Medicaid (HEDIS) 2014 90th percentile = 85.67%	Gap to Goal (5%) or attainment at target	B	O	O	O	O	Gap to Goal adjusted to reflect populations with health disparities.
6	**Reducing Health Disparities for Hypertension Control in Patients with Diabetes:** Comprehensive Diabetes Care: Blood Pressure Control (<140/90) for defined patient panel population(s) with diabetes and disproportionately poorer outcomes for good control of hypertension	NQF 0061 (for hospital-defined patient panel population(s) with health disparities	MA Medicaid (HEDIS) 2014 90th percentile = 82.74%	Gap to Goal (5%) or attainment at target	B	O	O	O	O	Gap to Goal adjusted to reflect populations with health disparities.

Baseline (B) / Outcome and Improvement (O)

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Required Measure Slate: Improvement and Outcomes Measures – (Not Selected) *(Achieve 3 of 9 Outcome Measures in Year 2, 5 of 9 in Year 3, 5 of 9 in Year 4, and 6 of 9 in Year 5).*									
Measure Slate 5		**5: Community Empowered Population Health Initiative**			**Baseline**	**Achieve 3 of 9 Measures**	**Achieve 5 of 9 Measures**	**Achieve 5 of 9 Measures**	**Achieve 6 of 9 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2022**	**Rationale for Improvement Target**
7	**Comprehensive Diabetes Care:** A1c Poor Control or A1c Good Control for defined patient panel population(s) with disproportionately poorer outcomes for diabetes blood glucose control	NQF 0059 or NQF 0575 (one of the two measures above will be selected and confirmed in the baseline year based on hospital evaluation of health disparities. (for hospital-defined patient panel population(s) with health disparities	NQF 0059 MA Medicaid (HEDIS) 2014 90th percentile = 18.57% or NQF 0575 MA Medicaid (HEDIS) 2014 90th percentile = 59.37%	Gap to Goal (5%) or attainment at target	B	O	O	O	O	Gap to Goal adjusted to reflect populations with health disparities.
8	**Composite Diabetes & Hypertension Patient Education, outreach or Intervention:** Proportion of patients in defined patient panel population(s) with disproportionately poorer health outcomes for hypertension and diabetes control in measures 5, 6, and 7 above that received patient education, outreach, or another intervention to support chronic health condition management	Customized Measure (for hospital-defined patient panel population(s) with health disparities	No external benchmark; hospital specific improvement target = 60%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target derived to improve patient education, outreach, and/or interventions for patients with disproportionately poorer health outcomes.

Baseline (B) / Outcome and Improvement (O)

Required Measure Slate: Improvement and Outcomes Measures – (Not Selected) *(Achieve 3 of 9 Outcome Measures in Year 2, 5 of 9 in Year 3, 5 of 9 in Year 4, and 6 of 9 in Year 5).*									
Measure Slate 5		**5: Community Empowered Population Health Initiative**			**Baseline**	**Achieve 3 of 9 Measures**	**Achieve 5 of 9 Measures**	**Achieve 5 of 9 Measures**	**Achieve 6 of 9 Measures**	
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2022**	**Rationale for Improvement Target**
9	**Primary Care and Ambulatory Care Utilization Among Panel Population(s) with Health Disparities:** Increase the proportion of patients in defined patient panel population(s) with disproportionately poorer health outcomes for hypertension and diabetes control in measures 5, 6, and 7 above who had at least one community health, primary care and/or other ambulatory care visit during the measurement period	Customized Measure (for hospital-defined patient panel population(s) with health disparities	No external benchmark; Improvement over SFY 2018 baseline by defined % point(s)	Improvement compared to SFY 2018 baseline.	B	O Improve by at least 1% point above the SFY 2018	O Improve by at least 2% point above the SFY 2018	O Improve by at least 3% points above the SFY 2018	O Improve by at least 4% points above the SFY 2018	Target derived to improve utilization of primary care and ambulatory care for patients with disproportionately poorer health outcomes.

Baseline (B) / Outcome and Improvement (O)

Measure Slate 6	Population-Wide Community and Public Health Indicators	Source	Geography	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022
1	Age-adjusted rate* per 100,000 for premature death (below age 75), *by race and ethnicity, as available*	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
2	Age-adjusted rate* per 100,000 for hospital discharges for primary care manageable conditions: asthma - *by age, race and ethnicity as available*	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
3	Age-adjusted rate* per 100,000 for suicide mortality	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
4	Age-adjusted rate* per 100,000 for Hepatitis C incidence	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
5	Percentage of children fully immunized at kindergarten entry	Immunization Program, Massachusetts Department of Public Health and Massachusetts Department of Elementary and Secondary Education	Cambridge, Somerville, Everett, Malden, Statewide	R	R	R	R	R
6	Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- high school and middle school surveys	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	R	R	R	R	R
7	Age-adjusted rate* per 100,000 for Opioid poisoning mortality	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
8	Ranking top cause of 1) hospitalizations and 2) Emergency Department visits, by city: Age-adjusted rate* per 100,000 for hospitalizations (by individual cause) Age-adjusted rate* per 100,000 for Emergency Department visits (by individual cause).	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
9	Age-specific rate* per 100,000 for 1) Emergency Department -visits and 2) mortality related to falls among those age 65 years and over by city.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R

Measure Slate 6	Population-Wide Community and Public Health Indicators	Source	Geography	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022
10	Age-adjusted rate* per 100,000 for Emergency Department visits related to alcohol or substance use.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
11	Age-adjusted rate* per 100,000 for Emergency Department visits related to Opioid poisoning.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
12	Age-adjusted rate* per 100,000 for hospitalizations related to Hypertension.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
13	Age-adjusted rate* per 100,000 for 1) hospitalizations and 2) Emergency Department visits related to Renal Failure or Renal Disorder.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R

*Age-adjusted and age-specific rates are expressed per 100,000 persons.
^ Measures are reported using the most recent available data from public sources.

Appendix: Measure Slates 1-6

Required Measure Slate: Improvement and Outcomes Measures *(Achieve 2 out of 4 in Year 1, 4 of 11 Outcome Measures in Year 2, 5 out of 11 in Year 3, 6 out of 11 in Year 4, and 7 out of 11 in Year 5).*									
Measure Slate 1		**1: Behavioral Health and Primary Care Integration**		**Achieve 2 of 4 Measures**	**Achieve 4 of 11 Measures**	**Achieve 5 of 11 Measures**	**Achieve 6 of 11 Measures**	**Achieve 7 of 11 Measures**	**Baseline (B) Outcome (O) Reporting (R)**
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2 022**	**Rationale for Improvement Target**
1	Depression Response at 6 Months - Progress Towards Remission (across all core primary care sites)	NQF 1884	No external benchmark; hospital-specific improvement target = 45%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	This target is based on literature on collaborative care indicating that a rate of 45% on the depression response measures represents the highest level of statistically meaningful improvement that has currently been achieved[104].
2	Depression Response at 12 Months - Progress Towards Remission (across all core primary care sites)	NQF 1885	No external benchmark; hospital-specific improvement target = 45%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	This target is, based on literature on collaborative care indicating that a rate of 45% on the depression response measures represents the highest level of statistically meaningful improvement that has currently been achieved[105].
3	Primary Care Provider confidence in management of depression, measured through annual survey	PCMH	No external benchmark; hospital specific improvement target = 90%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target based on evidence-based depression programming in primary care.

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[104]Thota Et al (2012). Collaborative Care to Improve the Management of Depressive Disorders. Am J Prev Med. 42(5): 525-538.; Unutzer et al (2002). Collaborative Care Mgmt of Late Life Depression in the Primary Care Setting. JAMA 288 (22).

[105]Thota Et al (2012). Collaborative Care to Improve the Management of Depressive Disorders. Am J Prev Med. 42(5): 525-538.; Unutzer et al (2002). Collaborative Care Mgmt of Late Life Depression in the Primary Care Setting. JAMA 288 (22).

#	Measure	Benchmark Source	Benchmark	Target Method						Rationale
4	Primary Care Provider confidence in management of substance use disorders, measured through annual survey	PCMH	No external benchmark; hospital specific improvement target = 70%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target based on newness of initiative introducing universal screening for substance use disorders in primary care and care management initiatives.
5	Screening and Brief Intervention for Alcohol Use for adults (across all core primary care sites)	NQF 2152	No external benchmark; hospital specific improvement target = 65%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	Target based on literature review of best practice performance levels. [106]
6	Screening and Brief Intervention for Drug Use for adults (across all core primary care sites)	NQF 2152, adapted to include substance use	No external benchmark; hospital specific improvement target = 65%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Same as above.
7	Patients on Chronic Opioid Therapy with a Controlled Substance Agreement (across all core primary care sites)	N/A	No external benchmark; hospital-specific improvement target = 80%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	Target aligned to initiative to optimize opioid prescribing practice.
8	Patients on Chronic Opioid Therapy with urine drug screening (across all core primary care sites)	N/A	No external benchmark; hospital-specific improvement target = 80%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	Target aligned to initiative to optimize opioid prescribing practice.
9	Patients with chronic pain who had functional assessment (across all core primary care sites)	NQF 0050, adapted to include all chronic pain conditions	No external benchmark; hospital specific improvement target = 50%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target based on newness of initiative, and literature indicating the value of functional assessment in patients with chronic pain [107].

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[106] Bertholet N, Daeppen JB, Wietlisbach V, Fleming M, Burnand B. Reduction of Alcohol Consumption by Brief Alcohol Intervention in Primary Care. Archives of Internal Medicine. 2005;165:986-995; Babor TF, Higgins-Biddle JC, Dauser D, Burleson JA, Zarkin GA, Bray J. Brief Interventions for At-Risk Drinking: Patient Outcomes and Cost-Effectiveness in Managed Care Organizations. Alcohol and Alcoholism. 2006;41(6):624-631.
[107] Institute for Clinical Systems Improvement, Assessment and Management of Chronic Pain 2013

#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1	Year 2	Year 3	Year 4	Year 5	Rationale for Improvement Target
10	Screening and Brief Intervention for Alcohol and Drug Use for adolescents (across all core primary care sites)	NQF 2152, adapted to expand to new age range for adolescents	No external benchmark; hospital specific improvement target = 50%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Expansion of measure to the adolescent patient population. Improvement target based on newness of initiative for adolescent patients.
11	Maternal Depression Screening (across all core primary care sites)	NQF 1401	No external benchmark; hospital specific improvement target = 75%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target based on literature indicating value of maternal depression screening in conjunction pediatric visits to identify developmental risk factors.[108]

Required Measure Slate: Improvement and Outcomes Measures									
(Achieve 2 out of 5 in Year 1, 5 of 13 Outcome Measures in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, and 8 out of 13 in Year 5).									
Measure Slate 2		**2: Comprehensive Systems for Treating Mental Health & Substance Use (MHSU) Conditions**			**Achieve 2 of 5 Measures**	**Achieve 5 of 13 Measures**	**Achieve 7 of 13 Measures**	**Achieve 8 of 13 Measures**	**Achieve 8 of 13 Measures**	**Baseline (B) Outcome (O) Reporting (R)**
#	**Measure Description**	**Measure Steward NQF#**	**Benchmark**	**Improvement Methodology**	**Year 1** SFY 2018	**Year 2** SFY 2019	**Year 3** SFY 2020	**Year 4** SFY 2021	**Year 5** SFY 2022	**Rationale for Improvement Target**
1	Controlling high blood pressure for people with serious mental illness (for BH Home population)	NQF 2602	MA Medicaid (HEDIS) 2015 75th percentile: 65.09% (proxy benchmark from NQF 0018 for overall population)	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Using related benchmark for NQF 0018 for overall population.
2	Proportion of patients with identified opioid use disorder accessing medication-assisted treatment (MAT)	N/A	No external benchmark; Hospital target = 50.00%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target of 50% informed by experience with patient engagement in opioid treatment

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[108]*Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda.* Washington (DC): US Department of Health and Human Services; US Department of Health and Human Services; US Department of Education; US Department of Justice, 2000.

3	Hospitalized patients screened within 72 hours of admission using a validated screening tool for unhealthy alcohol use (all public hospital system inpatient psychiatric discharges, age 18 and above)	NQF 1661 SUB-1	Joint Commission (2014) 75th percentile = 94.20%	Gap to Goal (10%) or attainment at target	O (CY2017)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	Using Joint Commission benchmark for SUB-1
4	Alcohol use brief intervention provided or offered (during public hospital system psychiatric hospitalization, age 18 and above)	NQF 1663 SUB-2	Joint Commission (2014) average = 48.20%	Gap to Goal (10%) or attainment at target	B (CY2017)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	New measure as of 1/1/16; using related benchmark for NQF 1663, which is a similar measure for all inpatient admissions
5	Follow-up after hospitalization for mental illness (for BH Home population) – 7 days for public hospital system hospitalizations	NQF 0576 (7-day)	National (HEDIS) Medicaid 2015 90th percentile = 63.85%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	
6	Transition record with specified elements received by discharged patients (for public hospital system psychiatric hospitalizations)	NQF 0647	MA IPFQR-HBIPS 2014 average = 83.27%	Gap to Goal (10%) or attainment at target	B (CY2017)	O (CY2018)	O (CY2019)	O (CY2020)	O (CY2021)	New IPFQR measure to be implemented 1/1/17; using related measure for NQF 0557, which is HBIPS-6 for creation of the transition continuing care plan
7	Access to public hospital system ambulatory mental health care: Scheduled intakes within 14 days of referral (for in-network referrals)	N/A	National Medicaid (HEDIS) 2015 90th percentile = 48.10%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Using proxy benchmark derived from National Medicaid (HEDIS) Initiation and Engagement of AOD treatment (initiation component only), NQF 0004.
8	Increase number of synchronous and asynchronous tele-consultations with psychiatrists	N/A	No external benchmark; Hospital target = 400 per year	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target informed by roll-out and expansion of tele-psychiatry

#	Measure	Source	Benchmark	Target	Y1	Y2	Y3	Y4	Y5	Notes
9	Diabetes screening for people with Schizophrenia or Bipolar Disorder who are using antipsychotic medications (for active primary care patients and BH home patients)	NQF 1932	MA Medicaid (HEDIS) 2015 90th percentile = 86.96%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	
10	Cardiovascular health screening for people with Schizophrenia or Bipolar Disorder who are prescribed antipsychotic medications (for active primary care patients and BH home patients)	NQF 1927	No external benchmark; hospital-specific target = 75.00%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target informed by experience with screening measures for other populations
11	Diabetes Monitoring for People with Diabetes and Schizophrenia (for active primary care patients and BH home patients)	NQF 1934	National (HEDIS) Medicaid 2014 90th percentile = 76.67%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	
12	Screening for metabolic disorders (psychiatric inpatient discharges on routinely-scheduled antipsychotic screened during/before stay)	CMS IPFQR	No external benchmark	Improvement over CY 2017 baseline	B (CY2017)	O (CY2018) 2% increase over CY2017	O (CY2019) 5% increase over CY2017	O (CY2020) 8% increase over CY2017	O (CY2021) 10% increase over CY2017	No existing benchmark; CMSIPFQR measure to be implemented 1/1/17
13	Increase the percentage of BH Home target population patients who have a care plan (care plans may include CHA coordinated care plan and/or ACO behavioral health community partner care plan)	NCQA Medical Home	NCQA 2014 Medical Home Standard = 75.00%	Gap to Goal (10%) or attainment at target	O	O	O	O	O	Target of 75% is 2014 NCQA Medical Home standard.

Required Measure Slate: Improvement and Outcomes Measures						
(Achieve 2 out of 5 in Year 1, 4 of 10 Outcome Measures in Year 2, 7 out of 13 in Year 3, 6 out of 10 in Year 4, and 8 out of 13 in Year 5).						
Measure Slate 3	**3: Referral Management and Integrated Care Management**	Achieve 2 of 5 Measures	Achieve 4 of 10 Measures	Achieve 7 of 13 Measures	Achieve 6 of 10 Measures	Achieve 8 of 13 Measures	**Baseline (B) Outcome (O) Reporting (R)**

#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
1	Overall Reduce proportion of Emergency Department Outmigration to Non-Public Hospital System Facilities within specific payer contracts	Customized Measure: Claims based (units of service)[109]	No external benchmark; hospital specific improvement target = 25%	Gap to Goal (10%) or attainment at target	**B** (CY2016)	**O** (CY2018)	**O** (CY2019)	**O** (CY2020)	**O** (CY2021)	Target of 25% informed by out-migration improvement opportunity
2	Overall Reduce proportion of Inpatient Outmigration to – Public Hospital System Facilities within specific payer contracts	Customized Measure: Claims based (units of service)[5]	No external benchmark; hospital specific improvement target = 50%	Gap to Goal (10%) or attainment at target	**B** (CY2016)	**O** (CY2018)	**O** (CY2019)	**O** (CY2020)	**O** (CY2021)	Target of 50% informed by out-migration improvement opportunity
3	Overall Reduce proportion of out-of-network Medical & Surgical specialty referrals (outpatient)	Customized Measure	No external benchmark; hospital specific improvement target = 10%	Gap to Goal (10%) or attainment at target	**O** (4/1/17 - 3/31/18)	**O** (4/1/18 - 3/31/19)	**O** (4/1/19 - 3/31/20)	**O** (4/1/20 – 3/31/21)	**O** (4/1/21 - 3/31/22)	Target of 10% informed by out-of-network referral improvement opportunity
4	Selected Public Hospital Primary Care Practice(s) Initiative: Primary care reduce proportion of out-of-network Medical & Surgical specialty referrals (outpatient) referrals	Customized Measure	No external benchmark; hospital specific improvement target = 10%	Gap to Goal (10%) or attainment at target	**B** (4/1/17 - 3/31/18)	**O** (4/1/18 - 3/31/19)	**O** (4/1/19 - 3/31/20) Initial Practice (s)	**O** (4/1/20 – 3/31/21)	**O** (4/1/21 - 3/31/22)	Target of 10% informed by out-of-network referral improvement opportunity
					Initial Practice (s)	Initial Practice (s)	New Practice (s)	New Practice (s)	New Practice (s)	

[109]Baseline and outcome measures are dependent on stable populations and relevant claims data. Should there be material changes in populations, payor contracts and access to claims data these measures will need to be re-based.

5	Reduce the proportion of out-of-network referrals for selected specialty care areas within the public hospital system: (SFY 2018 will continue Gastroenterology) (SFYs 2019 – 2020 will be a 2nd Specialty Area) (SFYs 2021 – 2022 will be a 3rd Specialty Area)	Customized Measure	No external benchmark; hospital specific improvement target (Gastroenterology = 6%; Applicable to SFY 2018) New Specialty Target will be submitted with baseline data for each new specialty	Gap to Goal (10%) or attainment at target	**O** (4/1/17 - 3/31/18)	**B** (4/1/18 - 3/31/19)	**O** (4/1/19 - 3/31/20)	**B** (4/1/20 - 3/31/21)	**O** (4/1/21 - 3/31/22)	Target for new specialties will be specified at the time of the selection of the specialty and reported with baseline data
					Gastroenterology	New Specialty 1	New Specialty 1	New Specialty 2	New Specialty 2	
6	Completed appointments per FTE or total number of completed appointments for selected specialties within the public hospital system: (SFY 2018 will continue Gastroenterology) (SFYs 2019 – 2020 will be a 2nd Specialty Area) (SFYs 2021 – 2022 will be a 3rd Specialty Area)	Customized Measure	No external benchmark; hospital specific improvement target (Gastroenterology = 1300 appointments per FTE; Applicable to SFY 2018) New Specialty Target will be submitted with baseline data for each new specialty	Gap to Goal (10%) or attainment at target	**O** (4/1/17 - 3/31/18)	**B** (4/1/18 - 3/31/19)	**O** (4/1/19 - 3/31/20)	**B** (4/1/20 - 3/31/21)	**O** (4/1/21 - 3/31/22)	Target for new specialties will be specified at the time of the selection of the specialty and reported with baseline data
					Gastroenterology	New Specialty 1	New Specialty 1	New Specialty 2	New Specialty 2	
7	Time to first appointment: percentage of referrals to scheduled within 60 days for selected specialties within	Customized Measure	No external benchmark; hospital specific improvement target (Gastroenterology=50%;	Gap to Goal (10%) or attainment at target	**O** (4/1/17 - 3/31/18)	**B** (4/1/18 - 3/31/19)	**O** (4/1/19 - 3/31/20)	**B** (4/1/20 - 3/31/21)	**O** (4/1/21 - 3/31/22)	Target for new specialties will be specified at the time of the selection of the specialty and

	the public hospital system: (SFY 2018 will continue Gastroenterology) (SFYs 2019 – 2020 will be a 2nd Specialty Area) (SFYs 2021 – 2022 will be a 3rd Specialty Area)		Applicable to SFY 2018) New Specialty Target will be submitted with baseline data for each new specialty		Gastroenterology	New Specialty 1	New Specialty 1	New Specialty 2	New Specialty 2	reported with baseline data
8	Increase the # of E-Consults referrals made by public hospital primary care providers to defined public hospital specialists	Customized Measure	No external benchmark; hospital specific improvement over SFY 2018 baseline	Defined improvement over SFY 2018 baseline	**B** (4/1/17 - 3/31/18)	**O** 10% improvement over SFY18 baseline (4/1/18 - 3/31/19)	**O** 20% improvement over SFY18 baseline (4/1/19 - 3/31/20)	**O** 30% improvement over SFY18 baseline (4/1/20 - 3/31/21)	**O** 40% improvement over SFY18 baseline (4/1/21 - 3/31/22)	Increased access for consultative services to facilitate care and access for patients to critical specialties
9	Demonstrate improvement in colorectal cancer screening rates (for active pubic hospital primary care patients)	NQF 0034	National (HEDIS) Commercial 2014 90th percentile = 72%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	
10	Improvement in inpatient discharge referral rate to in-network skilled nursing facilities for Medical/Surgical inpatients discharged from the public hospital system	Numerator: Discharges to In-Network SNFs Denominator: Medical/ Surgical Inpatient Discharges from the Public Hospital System to all SNFs[110]	No external benchmark; hospital specific improvement target= 75%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Appropriate post acute placement of patients based on clinical need

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[110] Any Visiting Nurses Association (VNA) with whom public hospital system has a signed preferred provider agreement. Preferred provider relationships are evaluated annually and are subject to change if VNAs are not in compliance with the terms of the agreement. Changes in preferred VNA relationships may require a rebasing of the measures.

11	Improvement in inpatient discharge referral rate to in network Visiting Nurse Association (VNAs) Medical/Surgical inpatients discharged from the public hospital system	Numerator: Discharges to In- Network VNAs Denominator: Medical/ Surgical Inpatient Discharges from the Public Hospital System to all VNAs[111]	No external benchmark; hospital specific improvement target = 80%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Appropriate post acute community-based care for patients based on clinical need
12	% of patient appointments at which the AVS was printed for the patient at the conclusion of their medical specialty appointment at the public hospital system	MU P220	No external benchmark; hospital specific improvement	Gap to Goal (10%) or attainment at target: Target 90%	**B** (4/1/17 - 3/31/18)	**O** (4/1/18 - 3/31/19)	**O** (4/1/19 - 3/31/20)	**O** (4/1/20 - 3/31/21)	**O** (4/1/21 - 3/31/22)	Target of 90% established based on clinical operations standards, taking into account the spectrum of patient routine and urgent visit types
13	% of patient appointments at which the AVS was printed for the patient at the conclusion of their surgical appointment at the public hospital system	MU P220	No external benchmark; hospital specific improvement	Gap to Goal (10%) or attainment at target: Target 90%	**B** (4/1/17 - 3/31/18)	**O** (4/1/18 - 3/31/19)	**O** (4/1/19 - 3/31/20)	**O** (4/1/20 - 3/31/21)	**O** (4/1/21 - 3/31/22)	Target of 90% established based on clinical operations standards, taking into account the spectrum of patient routine and urgent visit types

Required Measure Slate: Improvement and Outcomes Measures *(Achieve 2 of 3 Outcome Measures in Year 1, 4 out of 13 in Year 2, 7 out of 13 in Year 3, 8 out of 13 in Year 4, 8 out of 13 in Year 5).*						
Measure Slate 4	**4: Evidence-Based Practices for Medical Management of Chronic Conditions**	**Achieve 2 of 3 Measures**	**Achieve 4 of 13 Measures**	**Achieve 7 of 13 Measures**	**Achieve 8 of 13 Measures**	**Achieve 8 of 13 Measures**	**Baseline (B) Outcome (O) Reporting (R)**

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[111] Any Skilled Nursing Facility (SNF) approved by the public hospital network development committee as being "in-network" at any point during the measurement year. The network development committee oversees the collaborative relationships in which the public hospital system participates. The committee abides by specific principles related to access, continuity of care, communication expectations and quality improvement. Changes to in-network SNF relationships may require a rebasing of the measures.

#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
	Chronic Obstructive Pulmonary Disease (COPD)									
1	The percentage of active primary care patients 40 years of age and older with a new diagnosis of COPD or newly active COPD, who received appropriate spirometry testing to confirm the diagnosis.	NQF 0577	2015 90th percentile National Medicaid = 47.0%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target reflects the 2015th 90th Percentile National Medicaid.
2	Percentage of active primary care patients aged 18 years and older with a diagnosis of COPD and who have an FEV1/FVC < 60% and have symptoms who were prescribed an inhaled bronchodilator.	NQF 102	2015 90th percentile National Medicaid= 90.0%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target reflects the 2015th 90th Percentile National Medicaid.
3	Improve the percentage of patients with COPD who received patient education for COPD by a member of their inpatient care team prior to discharge (across public hospital's inpatient hospital campuses)	Customized Measure	No external benchmark; hospital specific improvement target = 85%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	Target of 85% reflects best practice adoption of the required workflows.
	Congestive Heart Failure (CHF)									
4	Improve the percentage of patients with CHF who received patient education for CHF by a member of their inpatient care team prior to discharge (across public hospital's inpatient hospital campuses)	Customized Measure	No external benchmark; hospital specific improvement target = 85%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	Target of 85% reflects best practice adoption of the required workflows.
	Diabetes									

5	Diabetes: HbA1c Control- % of active primary care patients ages 18 to 75 with diabetes whose most recent HbA1c control is <8.0%	NQF 0575	2015 90th percentile National Medicaid: 59.0%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target reflects the 2015th 90th Percentile National Medicaid
6	Comprehensive Diabetes Care: Eye Exam (retinal) performed (for active primary care patients)	NQF 0055	2015 90th percentile National Medicaid: 68.0%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target reflects the 2015th 90th Percentile National Medicaid
7	Improve the proportion of active primary care patients 18-75 years of age with diabetes with poorly controlled Hemoglobin HbA1C (most recent >=8.0%) who have a care plan	NCQA	No external benchmark; hospital specific improvement Target = 75%	Gap to Goal (10%) or attainment at target	**O**	**O**	**O**	**O**	**O**	Target of 75% is NCQA 2014 Medical Home Standard.
8	Percentage of high risk diabetic primary care patients receiving enhanced diabetes management services, including nursing-led patient education and self-management coaching, pharmacist-led medication management services, or other care team member support.	Customized Measure (denominator linked to NQF 0575)	No external benchmark; hospital specific improvement target	Improvement over SFY 2018 baseline SFY 19: Improve 2% over SFY 2018 baseline SFY 20: Improve 4% over SFY 2018 baseline SFY 21: Improve 6% over SFY 2018 baseline SFY 22: Improve 8% over SFY 2018 baseline	**B**	**O**	**O**	**O**	**O**	Target reflects roll-out implementation and capacity for new workflows.
	Hypertension (HTN)									

9	Percentage of high risk hypertensive primary care patients receiving enhanced hypertension management services, including nursing-led patient education and self-management coaching, pharmacist-led medication management services, or other care team member support.	Customized Measure	No external benchmark; hospital specific improvement target	Improvement over SFY 2018 baseline

SFY 19: Improve 2% over SFY 2018 baseline
SFY 20: Improve 4% over SFY 2018 baseline
SFY 21: Improve 6% over SFY 2018 baseline
SFY 22: Improve 8% over SFY 2018 baseline | **B** | **O** | **O** | **O** | **O** | Target reflects roll-out implementation and capacity for new workflows. |
	Composite Measures									
10	Hospitalization Follow-up: The percentage of discharges for patients 18 years of age and older (with any of the following conditions Diabetes, Hypertension COPD, and/or CHF) who were discharged to home from public hospital's medical/surgical inpatient services and who had an outpatient visit within 7 days or contact within 2 days with a care team member documented in EMR.	Customized Measure	No external benchmark; hospital specific improvement target = 80%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target derived to improve follow up after hospitalization for chronic health conditions
11	% of active primary care patients 3 years and older with the following conditions: Diabetes, Pediatric Asthma, Hypertension, COPD, and CHF, for whom a public hospital follow-up contact or visit is completed within seven calendar days post ED discharge	Customized Measure	No external benchmark; hospital specific improvement target =50%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target derived to improve follow up after ED visits for chronic health conditions

#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology						Rationale for Improvement Target
12	Screening for Depression in active primary care patients 18 years and older with Diabetes, HTN, CHF, and/or COPD	Approximate Match- NQF 0418 (Adjusted for Chronic Conditions at high risk)	No external benchmark; hospital specific improvement target = 80%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target derived to improve depression screening for patients with chronic health conditions at high risk..
13	Co-morbid Conditions: Depression Follow-Up in active primary care patients with Diabetes, HTN, CHF, and/or COPD	Customized Measure	No external benchmark; hospital specific improvement target = 60%	Gap to Goal (10%) or attainment at target	**B**	**O**	**O**	**O**	**O**	Target derived to improve follow up for depression care for patients with chronic health conditions.

Required Measure Slate: Improvement and Outcomes Measures – (Not Selected)
(Achieve 3 of 9 Outcome Measures in Year 2, 5 of 9 in Year 3, 5 of 9 in Year 4, and 6 of 9 in Year 5).

	Measure Slate 5	5: Community Empowered Population Health Initiative		Baseline	Achieve 3 of 9 Measures	Achieve 5 of 9 Measures	Achieve 5 of 9 Measures	Achieve 6 of 9 Measures	Baseline (B) Outcome (O) Reporting (R)
#	Measure Description	Measure Steward NQF#	Benchmark	Improvement Methodology	Year 1 SFY 2018	Year 2 SFY 2019	Year 3 SFY 2020	Year 4 SFY 2021	Year 5 SFY 2022	Rationale for Improvement Target
1	**Social Determinant Screenings:** Utilizing implemented social determinant(s) screening tool, increase percentage of defined patient panel population segment(s) (such as patients with chronic conditions and/or behavioral health conditions, high risk/high utilizers, specific primary or specialty practices) within the ACO/public payor population) screened for selected Social Determinants	Customized Measure	No external benchmark; hospital specific improvement target =70%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target is based on population screening measures for this new initiative.

2	**Referrals to Community and Social Services:** The percentage of defined patient panel screened for social determinant(s) (in measure 1 above) with referrals to community and social services and supports	Customized Measure	No external benchmark; hospital specific improvement target =60%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target is informed by referrals to community and social services.
3	**Expansion of Social Determinant Screening to Additional Patient Cohorts:** Expand patient panel subpopulations or practice sites whose patients receive social determinant screening	Customized Measure	No external benchmark; hospital specific target = Add at least 1 additional patient subpopulation or practice site per year	Defined Increase Per Year	B	O	O	O	O	Target based on phased implementation of new social determinants initiative.
4	**Follow-up Social Determinant Screening:** Percentage of identified & active patient panel populations with follow-up social determinant(s) rescreening for appropriate determinants	Customized Measure	No external benchmark; hospital specific improvement Target= 50%	Gap to Goal (10%) or attainment at target		B	O	O	O	Rescreening rates to begin in year two to measure presence or resolution of social determinants
5	**Reducing Health Disparities for Hypertension:** Controlling High Blood Pressure Measure (2015 HEDIS Definition) for defined patient panel population(s) with disproportionately poorer outcomes for good control of hypertension	NQF 0018 (for hospital-defined patient panel population(s) with health disparities	MA Medicaid (HEDIS) 2014 90th percentile = 85.67%	Gap to Goal (5%) or attainment at target	B	O	O	O	O	Gap to Goal adjusted to reflect populations with health disparities.

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6	**Reducing Health Disparities for Hypertension Control in Patients with Diabetes:** Comprehensive Diabetes Care: Blood Pressure Control (<140/90) for defined patient panel population(s) with diabetes and disproportionately poorer outcomes for good control of hypertension	NQF 0061 (for hospital-defined patient panel population(s) with health disparities	MA Medicaid (HEDIS) 2014 90th percentile = 82.74%	Gap to Goal (5%) or attainment at target	B	O	O	O	O	Gap to Goal adjusted to reflect populations with health disparities.
7	**Comprehensive Diabetes Care:** A1c Poor Control or A1c Good Control for defined patient panel population(s) with disproportionately poorer outcomes for diabetes blood glucose control	NQF 0059 or NQF 0575 (one of the two measures above will be selected and confirmed in the baseline year based on hospital evaluation of health disparities. (for hospital-defined patient panel population(s) with health disparities	NQF 0059 MA Medicaid (HEDIS) 2014 90th percentile = 18.57% or NQF 0575 MA Medicaid (HEDIS) 2014 90th percentile = 59.37%	Gap to Goal (5%) or attainment at target	B	O	O	O	O	Gap to Goal adjusted to reflect populations with health disparities.
8	**Composite Diabetes & Hypertension Patient Education, outreach or Intervention:** Proportion of patients in defined patient panel population(s) with disproportionately poorer health outcomes for hypertension and diabetes control in measures 5, 6, and 7 above that received patient education, outreach, or another intervention to support chronic health condition management	Customized Measure (for hospital-defined patient panel population(s) with health disparities	No external benchmark; hospital specific improvement target = 60%	Gap to Goal (10%) or attainment at target	B	O	O	O	O	Target derived to improve patient education, outreach, and/or interventions for patients with disproportionately poorer health outcomes.

| 9 | **Primary Care and Ambulatory Care Utilization Among Panel Population(s) with Health Disparities:** Increase the proportion of patients in defined patient panel population(s) with disproportionately poorer health outcomes for hypertension and diabetes control in measures 5, 6, and 7 above who had at least one community health, primary care and/or other ambulatory care visit during the measurement period | Customized Measure (for hospital-defined patient panel population(s) with health disparities | No external benchmark; Improvement over SFY 2018 baseline by defined % point(s) | Improvement compared to SFY 2018 baseline. | B | O Improve by at least 1% point above the SFY 2018 | O Improve by at least 2% point above the SFY 2018 | O Improve by at least 3% points above the SFY 2018 | O Improve by at least 4% points above the SFY 2018 | Target derived to improve utilization of primary care and ambulatory care for patients with disproportionately poorer health outcomes. |

				Baseline (B), Outcome (O), Reporting (R)				
Measure Slate 6	**Population-Wide Community and Public Health Indicators**	**Source**	**Geography**	**Year 1 SFY 2018**	**Year 2 SFY 2019**	**Year 3 SFY 2020**	**Year 4 SFY 2021**	**Year 5 SFY 2022**
1	Age-adjusted rate* per 100,000 for premature death (below age 75), *by race and ethnicity, as available*	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
2	Age-adjusted rate* per 100,000 for hospital discharges for primary care manageable conditions: asthma - *by age, race and ethnicity as available*	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
3	Age-adjusted rate* per 100,000 for suicide mortality	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
4	Age-adjusted rate* per 100,000 for Hepatitis C incidence	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R

5	Percentage of children fully immunized at kindergarten entry	Immunization Program, Massachusetts Department of Public Health and Massachusetts Department of Elementary and Secondary Education	Cambridge, Somerville, Everett, Malden, Statewide	R	R	R	R	R
6	Percent of adolescents reporting specific risk behaviors (as available), from the Youth Risk Behavior Survey (YRBS)- high school and middle school surveys	Youth Risk Behavior Survey (YRBS) (Bi-Annual)	Cambridge, Somerville, Everett, Malden, (as available by community) Statewide	R	R	R	R	R
7	Age-adjusted rate* per 100,000 for Opioid poisoning mortality	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
8	Ranking top cause of 1) hospitalizations and 2) Emergency Department visits, by city: Age-adjusted rate* per 100,000 for hospitalizations (by individual cause) Age-adjusted rate* per 100,000 for Emergency Department visits (by individual cause).	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
9	Age-specific rate* per 100,000 for 1) Emergency Department -visits and 2) mortality related to falls among those age 65 years and over by city.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
10	Age-adjusted rate* per 100,000 for Emergency Department visits related to alcohol or substance use.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
11	Age-adjusted rate* per 100,000 for Emergency Department visits related to Opioid poisoning.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
12	Age-adjusted rate* per 100,000 for hospitalizations related to Hypertension.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R
13	Age-adjusted rate* per 100,000 for 1) hospitalizations and 2) Emergency Department visits related to Renal Failure or Renal Disorder.	MA Department of Public Health (Annual)	Cambridge, Somerville, Everett, Malden, Revere, Statewide	R	R	R	R	R