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Iowa Health and Wellness Plan Evaluation Interim Report

Peter Damiano
*Director**
*Professor, Preventive & Community Dentistry**

Elizabeth Momany
Assistant Director, Health Policy Research Program
*Associate Research Scientist**

Suzanne Bentler
*Assistant Research Scientist**

Susan McKernan
*Assistant Professor, Preventive & Community Dentistry***

Dan Shane
*Assistant Professor, Health Management and Policy****

Mark Pooley
*Research Associate**

Brooke McInroy
*Survey Research Manager**

Tessa Heeren
*Research Assistant**

**University of Iowa Public Policy Center*
***University of Iowa College of Dentistry and Dental Clinics*
****University of Iowa College of Public Health*

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Background

On January 1, 2014 Iowa implemented the Iowa Health and Wellness Plan (IHAWP). IHAWP expanded health coverage for low income Iowans through two new programs - Iowa Wellness Plan and Iowa Marketplace Choice Plan.

Wellness Plan (WP) provides coverage for adults ages 19-64 with income up to and including 100 percent of the Federal Poverty Level. It is administered by the Iowa Medicaid Enterprise. Members have access to the Medicaid provider network established for this program.

Marketplace Choice Plan (MPC) provides coverage for adults 19-64 with income from 101-133 percent of the Federal Poverty Level (FPL). The Marketplace Choice Plan allows members to choose certain commercial health plans available on the health insurance marketplace, with Medicaid paying the member's commercial health plan premiums. Marketplace Choice members could choose from two Qualified Health Plans (QHP):

CoOportunity Health
CoOportunity was a non-profit health co-op available on the Health Insurance Marketplace through the federal government portal. It was established with start-up funds provided through the ACA and operated statewide in Iowa and Nebraska, in alliance with HealthPartners of Minnesota and the Midlands Choice provider network.

Coventry Health Care of Iowa
Coventry is a national managed care company that is based in Bethesda, MD. They operate statewide and are available on the Health Insurance Marketplace through the federal portal.

IHAWP replaced the IowaCare program with more covered services and a broader provider network as well as expanded coverage to other low income adults in Iowa who were not previously enrolled in IowaCare. Appendix A provides a detailed map comparing benefits, provider networks, and healthy behavior incentives for the three plans: IowaCare, WP, MPC, and Medicaid State Plan.

The program has been modified in significant ways in its first 2 years. First, CoOportunity Health withdrew from the IHAWP at the end of November 2014.[1] CoOportunity members were automatically transitioned to Wellness Plan providers on December 1, 2014, however; they retain their designation as Marketplace Choice members. At the time of this change, approximately 9,700 Iowans were enrolled with CoOportunity.

Second, the state of Iowa has submitted a waiver to the Centers for Medicare and Medicaid Services (CMS) to place all Medicaid members, including those in the IHAWP, into managed care organizations beginning March 1, 2016. At this time, three MCOs are expected to provide services to all but a small portion of the Medicaid population including those eligible for health care services through IHAWP: Amerigroup Iowa, Inc.; AmeriHealth Caritas Iowa, Inc.; and UnitedHealthCare Plan of the River Valley, Inc.. Though the move toward managed care does not directly affect the results for the two years of IHAWP, it will clearly impact future evaluation activities.

[1] Iowa Marketplace Choice Plan Changes. Iowa Department of Human Services. November 2014. Available at: https://dhs.iowa.gov/sites/default/files/CoOpTransition_FAQ_11052014.pdf. Accessed July 2, 2015.

Program comparisons

Initially, the Wellness Plan and Marketplace Choice Plan were to be evaluated separately. This report, however; provides one source for evaluation of both programs. Overlapping outcomes and analysis are intentionally included to better understand the Iowa Health and Wellness Plan as a singular expansion, while exploring distinct qualities of each component of the program. This interim report includes discussions of the expansion and results of the expansion as a combination of the two mechanisms including the interplay between the two.

Study populations

Within the IHAWP evaluation there are seven distinct groups. Two of these are the study groups, Wellness Plan and Marketplace Choice, as described above. There are five additional comparison groups used for various parts of the evaluation, where such a comparison is appropriate. Analyses involving administrative data utilize adult members in the Family Medical Assistance Program (FMAP) and adult members of IowaCare as comparisons. Analyses involving survey data utilize adult members of the Medicaid State Plan who were eligible due to income (MSP-IE), adult members of the Medicaid State Plan eligible due to disability (MSP-SSI), and IowaCare members when questions from that program's evaluation were comparable. Below is a description of the Medically Exempt/Frail group. While this group is not a study or comparison group at this time, they will be used in a study directed at the experience of individuals who are found to be Medically Exempt/Frail in 2017.

FMAP – Family Medical Assistance Program

The FMAP comparison group is composed of adult parents of children eligible for Medicaid. Non-employed and employed parents of children in Medicaid in families with incomes from 0-77% FPL are eligible for Medicaid coverage. As they earn more they are able to increase the percent FPL allowed for eligibility to encourage employment. They may be covered through a Health Maintenance Organization (HMO), Primary Care Case Management (PCCM), or Fee for Service (FFS) structure.

MSP-IE – Medicaid State Plan income eligible

MSP-IE consists of members enrolled due to FPL between 0 and 66%. There are approximately 300,000 adults who will have at least one month of data in the study period. They may be covered through an HMO, PCCM, or FFS structure.

MPS-SSI – Medicaid State Plan disability eligible

MSP-SSI is composed of Medicaid State Plan members enrolled due to disability determination. The FPL for these members may range from 0 to 200%. Approximately 25,000 adults have at least one month of data in the study period. The only payment structure for these members is FFS. They are not eligible for the HMO or PCCM components.

IowaCare

IowaCare was a limited provider/limited benefit program that operated from 2005-2013. The provider network included one public hospital in Des Moines, the largest teaching hospital in the state, and 6 federally qualified health centers (FQHC). The plan served adults not otherwise eligible for Medicaid, with incomes up to 200% FPL. The Iowa Health and Wellness Plan replaced the IowaCare program, providing the opportunity to utilize previously collected and assimilated administrative and survey data (pre-implementation data) for enrollees from this program. IowaCare enrollees were distributed in three places following the elimination of this program.

1) People with incomes 101-133% FPL were enrolled into Marketplace Choice
2) People with incomes 0-100% FPL were enrolled in Wellness Plan
3) People whose income was from 133-200% or whose income could not be verified were not enrolled in any program

IowaCare did not provide coverage for routine dental coverage or prescription medications. In addition, primary care providers (Medical Homes) were limited to eight sites for outpatient care, six Federally Qualified Health Centers, the University of Iowa Hospitals and Clinics (UIHC), and Broadlawns Medical Center (BMC). Options for emergency or inpatient care were limited to UIHC and BMC.

The map below (Figure 1) shows the provider locations and counties in which IowaCare members were assigned to each Medical Home while in IowaCare. IHAWP only covers uninsured adults up to 133% FPL, but provides prescription drug coverage, dental care and a much broader provider network than was available for members in IowaCare. Appendix A provides a comparison between the coverage provided by IowaCare and IHAWP and the Medicaid State Plan (MSP) and IHAWP. Members who were eligible for IHAWP and enrolled in the IowaCare program as of December 31, 2013 were automatically enrolled into IHAWP as of January 1, 2014 if they met the eligibility criteria. Since IowaCare provided coverage for adults up to 200% FPL and IHAWP provides coverage to only 133% FPL, IowaCare members with incomes between 134% and 200% FPL were not auto-enrolled into IHAWP.

Figure 1 Map of IowaCare Medical Home Regions

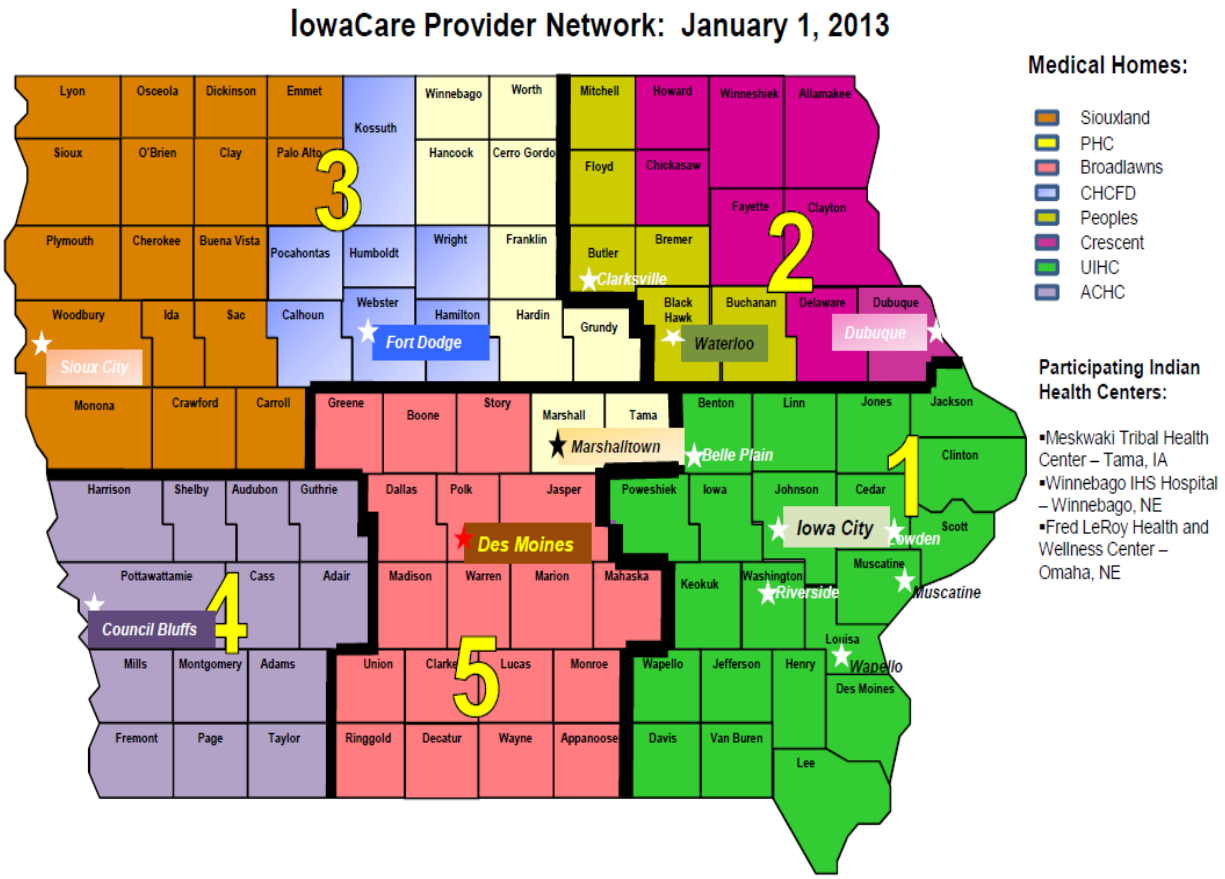


Table 1 compares the demographic characteristics of those who were eligible for IowaCare as of December 31, 2013 and auto-enrolled in IHAWP to those eligible for IowaCare and not auto-enrolled. Men and women were equally likely to be enrolled in WP, while women were more likely to be enrolled in MPC or not be enrolled. There were slight differences by race with whites more likely to be enrolled in WP or MPC. Interestingly, those with undeclared race were much less likely to be enrolled. Additionally, older members were less likely to be enrolled in either program, while residential rurality did not appear to have any effect.

Table 1. Demographic characteristics of IowaCare members by auto-enrollment status, CY 2014

	Enrolled in Wellness Plan N (%)	Enrolled in Marketplace Choice N (%)	Not enrolled N (%)	Percent NOT auto-enrolled
Gender				
Female	20,673 (49%)	5,290 (60%)	5,570 (55%)	18%
Male	21,211 (51%)	3,528 (40%)	4,472 (45%)	15%
Race				
White	21,866 (52%)	4,587 (52%)	4,692 (48%)	15%
Black	3,183 (8%)	465 (5%)	420 (4%)	10%
American Indian	329 (1%)	52 (1%)	34 (<1%)	8%
Asian	553 (1%)	138 (2%)	176 (2%)	20%
Hispanic	788 (2%)	224 (3%)	243 (2%)	19%
Pacific Islander	35 (<1%)	12 (<1%)	8 (<1%)	15%
Multiple-Hispanic	270 (1%)	60 (1%)	65 (1%)	17%
Multiple-Other	116 (<1%)	27 (<1%)	20 (<1%)	12%
Undeclared	14,744 (35%)	3,253 (37%)	4,384 (44%)	20%
Age				
18-21 years	1,355 (3%)	272 (3%)	339 (3%)	17%
22-30 years	9,699 (23%)	1,732 (20%)	1,803 (18%)	14%
31-40 years	8,627 (21%)	1,773 (20%)	1,745 (17%)	14%
41-50 years	10,378 (25%)	1,976 (22%)	2,386 (24%)	16%
51 and over	11,825 (28%)	3,065 (35%)	3,769 (38%)	20%
County rural/urban status				
Metropolitan	26,530 (63%)	5,451 (62%)	6,289 (63%)	16%
Non-metropolitan, urban	1,667 (4%)	420 (5%)	408 (4%)	16%
Non-metropolitan, rural	13,687 (33%)	2,947 (33%)	3,345 (33%)	17%
Total members	**41,884**	**8,818**	**10,042**	**17%**

Limitations to the study populations

The IowaCare program did not provide prescription drug coverage; however, members may have obtained medications from IowaCare providers. Anecdotal evidence indicates the IowaCare enrollees with University of Iowa Hospitals and Clinics as their medical home were provided medications as part of their care, while those with a FQHC were not able to obtain medications on a regular basis through the medical home. This limits our ability to use the IowaCare data in measures that require data on medication use. In addition, members who are or become dually enrolled in Medicaid and Medicare are removed from the analysis, since accurate claims data are not available.

Active enrollment into IHAWP

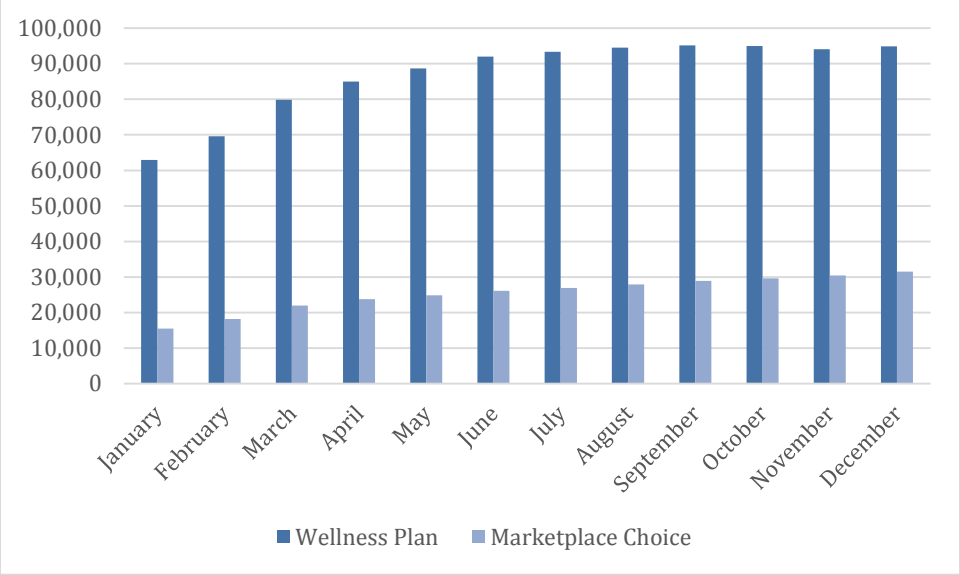
Table 2 provides the demographics of new enrollees in IHAWP, specifically those who were not auto-enrolled from the IowaCare program. These members entered through the Health Care Marketplace or were directed to these plans through Medicaid or a navigator at their local physician office or public health office. People who enrolled in IHAWP were more likely to be female, white, ages 22-40 years and live in a more urban location.

Table 2. Demographic characteristics of IHAWP members not auto-enrolled from IowaCare, CY 2014

	Enrolled in Wellness Plan N (%)	Enrolled in Marketplace Choice N (%)
Gender		
Female	39,860 (52%)	16,539 (62%)
Male	37,586 (48%)	10,241 (38%)
Race		
White	52,386 (68%)	18,399 (69%)
Black	6,310 (8%)	1,529 (6%)
American Indian	1,130 (2%)	272 (1%)
Asian	1,567 (2%)	683 (3%)
Hispanic	2,950 (4%)	1,350 (5%)
Pacific Islander	396 (1%)	293 (1%)
Multiple-Hispanic	739 (1%)	264 (1%)
Multiple-Other	622 (1%)	220 (1%)
Undeclared	11,346 (15%)	3,770 (14%)
Age		
18-21 years	7,314 (9%)	1,781 (7%)
22-30 years	22,228 (29%)	8,305 (31%)
31-40 years	17,624 (23%)	7,310 (27%)
41-50 years	14,018 (18%)	4,592 (17%)
51 and over	16,262 (21%)	4,792 (18%)
County rural/urban status		
Metropolitan	46,293 (60%)	15,466 (58%)
Non-metropolitan, urban	3,448 (5%)	1,408 (5%)
Non-metropolitan, rural	27,705 (36%)	9,906 (37%)
Total	**77,446**	**26,780**

The monthly enrollments for WP and MPC are shown in Figure 2. Enrollment rose continuously from January through June and then leveled off with only moderate increases after July 2014. WP grew to over 90,000 members by June, while MPC grew to nearly 30,000.

Figure 2. Monthly enrollment in IHAWP by plan-all enrollees, CY 2014



Methodology

Data Availability and Primary Collection

Data Access

The Public Policy Center (PPC) has worked closely with the State of Iowa to ensure that the assurances needed to obtain data are firmly in place. The PPC has a data sharing Memorandum of Understanding (MOU) with the State of Iowa to utilize Medicaid claims, enrollment, encounter, and provider data for approved research activities. All research activities must be approved by the University of Iowa Institutional Review Board (IRB) and the Iowa Department of Human Services. Additional data agreements will be initiated as needed, though at present none are anticipated.

Data sources

Administrative data

This evaluation provides a unique opportunity to optimize several sources of data to assess the effects of innovative coverage options. The PPC is home to a Medicaid Data Repository encompassing over 100 million claims, encounter and eligibility records for all Iowa Medicaid enrollees for the period January 2000 through the present. Data are assimilated into the repository on a monthly basis. Ninety-five percent of medical and pharmaceutical claims are completely adjudicated within three months of the first date of service, while the 'run out' for institutional claims is six months. The PPC staff has extensive experience with these files as well as extensive experience with CMS adult core measures and Healthcare Effectiveness Data and Information Set (HEDIS) measures. In addition, the database allows members to be followed for long periods of time over both consecutive enrollment months and periods before and after gaps in coverage. When the enrollment database was started in 1965, Iowa made a commitment to retain member identification numbers for at least three years and to never reuse the same Medicaid ID number. This allows long-term linkage of member information including enrollment, cost, and utilization throughout changes in programs.

The evaluation strategy outlined here is designed to maximize the use of outcome measures derived through administrative data manipulation using nationally recognized protocols from the National Quality Forum (NQF) and National Committee on Quality Assurance (NCQA) HEDIS.

Member surveys

This report includes data from surveys of Wellness Plan (WP), Marketplace Choice Plan (MPC), Medicaid State Plan – Income Eligible adults (MSP-IE), Medicaid State Plan – Supplemental Security Income adults (MSP-SSI), and IowaCare members. Surveys with members of the WP, MPC, MSP-IE, and MSP-SSI were fielded post-implementation of the IHAWP (in October of 2014) and the IowaCare survey data included in this report was from 2012 which was pre-IHAWP implementation. Detailed survey methodology, including the survey instruments, responses to each item in the surveys, and summarized results can be found at the following websites for each survey population.

IHAWP: http://ppc.uiowa.edu/publications/evaluation-iowa-health-and-wellness-plan-member-experiences-first-year

MSP (IE & SSI): http://ppc.uiowa.edu/health/study/evaluation-iowa-medicaid-managed-care-programs

IowaCare 2012: http://ppc.uiowa.edu/publications/evaluation-iowacare-program-information-about-medical-home-expansion

General methods used to develop, field, and compile the data from these surveys follow.

Survey Instruments

The survey instruments used with the IHAWP and MSP adult populations were based on the most recent versions of the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) 5.0 Health Plan survey[2] and the CAHPS Clinician and Group Survey[3]. A number of items were added to the CAHPS survey to provide information about the following topic areas:

- Need and Unmet Need for Health Care Services (derived from NHIS[4])
- Quality of Primary Care Delivery (derived from the CAHPS Patient-Centered Medical Home Item Set[5])
- Continuity of Care with a Primary Care Provider (Original items)
- Emergency Room Care and Hospitalizations (Original items)
- Mental Health and Emotional Health Care (Original Items)
- Non-Emergency Medical Transportation (Original Items)
- Behavior Change Incentives (Original Items for IHAWP only)
- Functional Limitations (derived from the Behavioral Risk Factor Surveillance System (BRFSS)[6])
- Chronic Physical and Mental Health Conditions (Original Items)
- Smoking Status and Smoking Cessation (Original Items)

The 2012 IowaCare survey instrument included content similar to the topics listed above. Any significant changes between the 2012 IowaCare survey and the 2014 IHAWP and Medicaid surveys will be noted in the results.

Survey Field Methods

The 2014 Survey of IHAWP members was conducted during the fall and winter of 2014/2015 using a mixed-mode mail methodology. Surveys were mailed to a stratified random sample of IHAWP members who had been in their current plan for at least the previous six months. The sample was stratified into five groups: WP FFS, WP HMO, WP PCCM, MPC CoOp, and MPC Coventry.

As part of a separate Medicaid evaluation, a survey of traditional Medicaid State Plan (MSP) members was conducted during this same period of time, using the same methodology. The MSP-IE population is used as a comparison for the WP and MPC groups. The Medicaid sample included adults from three Medicaid-IE

[2] Agency for Healthcare Research and Quality (AHRQ). CAHPS Surveys and Tools to Advance Patient-Centered Care. CAHPS Health Plan Survey. Available at https://cahps.ahrq.gov/surveys-guidance/hp/index.html
[3] AHRQ. CAHPS Surveys and Tools to Advance Patient-Centered Care. CAHPS Clinician and Group Survey. Available at https://cahps.ahrq.gov/surveys-guidance/cg/index.html
[4] Centers for Disease Control and Prevention (CDC). National Health Interview Survey. Available at http://www.cdc.gov/nchs/nhis/quest_doc.htm
[5] AHRQ. CAHPS Patient-Centered Medical Home (PCMH) Item Set. Available at https://cahps.ahrq.gov/surveys-guidance/item-sets/PCMH/index.html
[6] CDC. BRFSS. Available at http://www.cdc.gov/brfss/questionnaires.htm

member groups (HMO, MediPASS, FFS) and a Medicaid-SSI group. Data from the MSP-SSI group is presented, but this group is not used in statistical comparisons.

Random samples for each survey were drawn from IHAWP and Medicaid enrollment data, current as of September 2014. Only one person was selected per household to reduce the relatedness of the responses and respondent burden. The sample was comprised of 6,750 IHAWP members and 5,400 adult Medicaid members; 1,350 from each of the subgroups.

Both mail and web-based surveys were used. The initial mailings were sent to the sample of IHAWP and Medicaid members in October 2014. A reminder postcard was sent 14 days after the initial mailing. About 14 days after the postcard reminder, a second mailing was sent to those who had not responded to the initial mailing. In the mailed cover letter and on the reminder postcard, enrollees were given the option of completing the survey online and provided the website address for that purpose. In an effort to maximize response rates for the mailed survey, both a premium and an incentive were used in the first mailing: each initial survey packet included a $2 bill and respondents who completed and returned the survey within two weeks of the mailing were entered into a random drawing for one of ten $25 Wal-Mart gift cards.

The IowaCare survey conducted during the winter of 2012/2013 used the same field methodology as the 2014 IHAWP and Medicaid surveys (with the exception of the $25 gift card incentive). The randomly drawn sample was comprised of 6,400 adults.

Response Rates

Response rates for each of the population groups is provided in Table 3. Response rates were adjusted by removing ineligible individuals from the denominator. Individuals were determined to be ineligible to complete a survey because of invalid or out-of-state addresses or they were deceased.

Table 3. Response rates for WP, MPC, MSP-IE, MSP-SSI, and IowaCare2012

Plan	Total Sampled	Completed	Adjusted* Response Rate
WP	4050	1101	32%
MPC	2700	691	28%
MSP-IE	4050	679	19%
MSP-SSI	1350	357	25%
IowaCare 2012	6400	2154	37%

* Adjusted for ineligibles – Those who no longer had a valid address or were outside the state of Iowa.

Respondent Characteristics

Table 4 shows the demographic and health status characteristics of the respondents for each of the survey populations. IHAWP respondents are older, are more likely to be male, and have more self-reported health problems than the MSP-IE respondents. MSP-SSI respondents are similar to IHAWP members with regard to age and gender but are also less educated and, not surprisingly, report significantly more health problems than any other group. IowaCare respondents were similar to IHAWP respondents demographically but reported more physical and mental health problems.

Table 4. Demographic and Health Status Characteristics of WP, MPC, MSP-IE, MSP-SSI, and IowaCare 2012 respondents.

	WP N=1101	MPC N=691	MSP-IE N=679	MSP-SSI N=357	IowaCare N=2154
Age					
18-34	23%	28%	64%	15%	12%
35-54	45%	41%	34%	32%	53%
55-64	31%	31%	2%	29%	35%
65 or older	0%	0%	0%	24%	0%
Female	58%	72%	83%	57%	61%
Race/Ethnicity[1]					
White	84%	89%	84%	85%	87%
Black	8%	6%	10%	8%	5%
Hispanic	4%	4%	8%	3%	3%
Other[2]	5%	3%	5%	8%	5%
Education: > High School Degree	45%	51%	48%	25%	45%
Self-Reported Fair or Poor Physical Health	29%	20%	18%	51%	39%
Self-Reported Fair or Poor Mental Health	24%	14%	22%	34%	34%
Reported at least 1 Functional Limitation[3]	38%	18%	26%	50%	24%

[1] Race/Ethnicity categories are not mutually exclusive; thus, the percentages may not sum to 100%.
[2] Other includes Asian, Pacific Islander, American Indian, or other.
[3] Functional limitations included physical or medical conditions that a) seriously interfered with a member's ability to work, attend school, or manage day-to-day activities, b) seriously interfered with a member's independence, participation in the community, or quality of life, c) required the member to have help with routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes, or d) required the member to have help with personal care needs, such as eating, dressing, or getting around the house.

Analytic methods

The primary analyses were means test comparisons of 1) WP to MSP-IE members and 2) MPC to MSP-IE members. For completeness, descriptive statistics for MSP-SSI members (data collected at the same time as MSP-IE members – post-IHAWP implementation) and IowaCare members (data collected in 2012, pre-IHAWP implementation) were included.

Statistical means tests between WP/MPC and MSP-SSI were not conducted because the MSP-SSI population is a fundamentally different group demographically and are considerably less healthy than the other groups. The MSP-SSI population would be more similar to the medically exempt IHAWP members, but that group was not surveyed. Thus, the information presented about the MSP-SSI group is for reference only.

A statistical means test between WP/MPC (IHAWP) and IowaCare members (pre-IHAWP) was not conducted because two of the ways these populations differ cannot be adequately accounted for in the analytics. First, there are many fundamental differences in coverage between the former IowaCare program and the IHAWP which make direct comparisons on many of the survey outcomes irrelevant. Second, an assumption that the majority of the sample and respondents to the IHAWP survey would be people who were previously in the IowaCare program was unfounded. Upon analysis, the majority of the respondents to the IHAWP (over 60%) had never been in the IowaCare program which made the intended pre-post comparison less relevant. However, if available, data from the IowaCare 2012 survey is presented for reference.

For all survey analyses presented, the data was weighted to make it representative of all IHAWP and Medicaid members statewide and to account for the fact that there were not equal numbers of enrolled members in each sampled group. Thus, the percentages reported were weighted to reflect the statewide membership in each group. For the inferential statistics, the weight variable was re-based to the actual sample size in order to ensure that, while the adjustments for sampling method were retained, the standard errors used in the statistical testing were not artificially inflated.

Some limitations are inherent to survey research and some were the result of programmatic changes that may affect the interpretation of the results. First, those who chose to respond to the survey may be different from those who chose not to respond which can create biased results. In this evaluation, respondents (both to the Medicaid and the IHAWP surveys) were more likely to be female, white, and older than those who did not respond to the surveys. Second, respondents may have difficulty accurately remembering events which may introduce recall bias. This risk may not be high because of the relatively short time period for recalling events (6 months). Third, there were plan and programmatic changes that occurred during the fielding of these surveys that could have influenced the responses. One of the MPC plans (CoOp) exited the MPC around the time of the administration of this survey and that may have affected the experiences of those members differently than the members of the other MPC plan, Coventry Health as well as the members of the WP and MSP-IE groups.

Provider files

The primary purpose of the provider assessments is to understand how the provider incentives built into the IHAWP influence provider behavior toward members as well as their perceptions of the clinical and administrative ease/burden of participating in the program.

Several approaches are being considered for the provider assessment portion of the evaluation.

- Written surveys with physicians participating in the IHAWP
- Qualitative focus groups/cognitive interviews
- Case studies of participating practices/ACOs

A synopsis of data types and sources is provided below.

i. Medicaid encounter and claims data
   Housed within the PPC Medicaid data repository with monthly updates

ii. Enrollment data
   Housed within the PPC Medicaid data repository with monthly updates

iii. Provider Network data
   Housed within the PPC Medicaid data repository with monthly updates

iv. Consumer and provider surveys
Data and results from previous surveys are housed at the PPC. Evaluation surveys will be fielded annually

v. Stakeholder input
Stakeholders will be engaged in order to provide a more complete examination of implementation and to inform other states of potential challenges and strategies for overcoming the challenges. Stakeholders will participate in an online concept mapping process to collect, rate and categorize challenges. The strategies attempted to overcome the challenges will be explored in interviews and focus groups.

Results

The results below are presented in a similar order to what was in the original evaluation plan to allow the reader to more easily see the progress on each hypothesis and measure. For some, complete results are presented, including any variation that was required in the type of analysis from what was originally proposed. For others, there is an indication of the type of analysis that will be completed for the final report for June 2016. There are some other measures which, after a more thorough assessment of the available data, are no longer appropriate and this is indicated with the measure.

Access to Care

Question 1 *What are the effects of the Wellness Plan/Marketplace Choice on member access to care?*

Hypothesis 1.1

Wellness Plan/Marketplace Choice members will have equal or greater access to primary care and specialty services.

Measure 1 Access to primary care (Measure 1A and 1B)

1A Percent of members who had an ambulatory care visit

Definition

NCQA HEDIS Adults' Access to Preventive/Ambulatory Health Services (AAP)

Proposed Analytic method

Means tests between WP/MPC members and three comparison groups before and after implementation

Variations from the Proposed Analytic method

The current measure includes only the WP/MPC members and FMAP for CY2014 and IowaCare and FMAP for calendar year (CY) 2013.

Results

Tables 5 and 6 provide the rates for Adults' Access to Preventive/Ambulatory Health Services as defined through NCQA HEDIS. Both tables include only those members who were eligible for at least 11 months in 2014 and 11 months in 2013 and met the age criterion 19-64 in both years. Essentially, these tables take those eligible for the measure in 2014 and look back for these same members in 2013.

The data in Tables 5 and 6 indicate that members in IowaCare were the least likely to have had a preventive/ambulatory care visit. These same members when in WP or MPC were more likely to have had a preventive/ambulatory care visit. Of note, those in WP were more likely to have had a visit than those in MPC. None of the three groups (IowaCare, WP or MPC) were as likely to have had a visit as the FMAP group. We suspected that this may be due to the larger proportion of women in the FMAP group, however, on further analyses we found that both women and men in FMAP were more likely to have a visit.

Table 5. Adults' access to preventive/ambulatory health services by program and age for WP members eligible for at least 11 months in CY 2014 and 11 months in CY 2013

Age		FMAP 2013	IowaCare 2013	FMAP 2014	WP 2014
20-44 years	Number	15,184	5,538	15,444	7,475
	%	87%	63%	89%	83%
45-64 years	Number	1,774	6,601	1,791	8,408
	%	86%	70%	87%	89%
Total	Number	16,958	12,139	17,235	15,883
	%	87%	66%	89%	86%

Table 6. Adults' access to preventive/ambulatory health services by program and age for MPC members eligible for at least 11 months in CY 2014 and 11 months in CY 2013

Age		FMAP 2013	IowaCare 2013	FMAP 2014	MPC 2014
20-44 years	Number	14,696	1,710	15,444	1,595
	%	87%	70%	89%	80%
45-64 years	Number	1,666	1,582	1,791	1,674
	%	85%	77%	87%	86%
Total	Number	16,362	3,292	17,235	3,269
	%	87%	73%	89%	83%

Table 7 provides the rates for all members eligible for at least 11 months in 2014 without regard to their status in 2013. Members aged 20-44 years in FMAP are most likely to have a visit at over 85%. The proportion of members 20-44 years of age who had a visit in WP and MPC was 79% and 73%, respectively. For those ages 45-64 WP had a rate nearly equal to FMAP (86% vs 87%, respectively), while 80% of those in MPC had a visit.

Table 7. Adults' access to preventive/ambulatory health services by program and age for members eligible for at least 11 months in CY 2014

Age		FMAP 2014	WP 2014	MPC 2014
20-44 years	Number	28,248	21,742	6,452
	%	87%	79%	73%
45-64 years	Number	3,226	16,515	3,749
	%	87%	86%	80%
Total	Number	31,474	38,257	10,201
	%	87%	82%	76%

1B Whether a member had an ambulatory or preventive care visit

Proposed Analytic method

Models for RDD and DID are under development.

Measure 2 Follow-up after hospitalization for mental illness (Measures 2A and 2B)

2A Percent of discharges for members with a mental illness diagnosis that were followed by a visit with a mental health provider

Definition

NCQA HEDIS Follow-Up after Hospitalization (FUH) Adult core measure #3

Proposed Analytic method

Means tests between WP/MPC members and three comparison groups before and after implementation

Results

Measure moved to later date to allow for supplemental NEMT survey and analyses.

2B Whether a member discharged with a mental illness diagnosis had a follow-up visit with a mental health provider

Measure moved to later date to allow for supplemental NEMT survey and analyses.

Measure 3 Access to and unmet need for urgent care

Definition

The 2014 member survey was used for this measure. There are two items from that survey used to measure these concepts:

1. Access to urgent care = the percentage who responded that they 'Usually' or 'Always' got care as soon as they needed when they needed care right away.
2. Unmet need for urgent care = the percentage who responded that there was a time when they needed care right away but could not get it for any reason.

These two measures were calculated only for those who responded that they had an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office in the six months prior to the survey.

Proposed analytic method

Means tests between WP/MPC members and three comparison groups (MSP – IE, MSP – SSI, IowaCare) after implementation

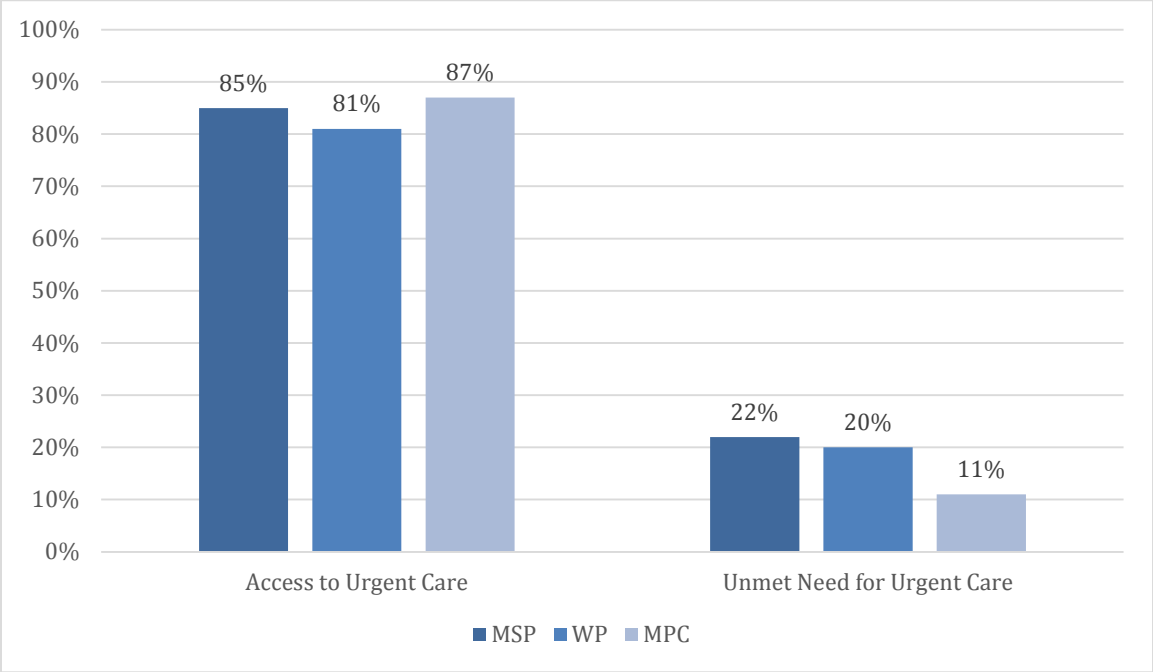
Variations from proposed method

Means tests were used to compare 1) WP members to MSP-IE members and 2) MPC members to MSP-IE members. Statistical comparisons of WP and MPC members to MSP-SSI adult members and pre-implementation IowaCare members were not conducted. Please refer to the methods section for a more detailed description of why these comparisons were not done.

Results

Figure 3 provides the percentages of access to and unmet need for urgent care for WP, MPC, and MSP-IE members. Overall, the majority of all members (MSP, WP, and MPC) reported usually or always having access to urgent care services when needed. MPC members reported the highest access to urgent care (87%) but this was statistically comparable to both MSP (85%) and WP (81%). MSP members (22%) were also statistically comparable to WP members (20%) and MPC members (11%) regarding unmet need for urgent care.

Figure 3. Access to and unmet need for urgent care



Note: Percentages reported are for those who reported a need for urgent care.

While statistical comparisons between WP and MPC members with IowaCare members (pre-implementation) and MSP-SSI members (post-implementation) were not conducted, we can report summary statistics from those groups. Notably fewer IowaCare members in 2012 reported consistent (usually or always) access to urgent care services (64%) with over one-third (38%) reporting an unmet need for those same services. MSP-SSI members post-implementation (84%) reported access to urgent care that was comparable to MSP-IE, WP, and MPC. As with MPC, 11% of MSP-SSI members reported an unmet need for urgent care.

Measure 4 Access to and unmet need for routine care

Definition

The 2014 member survey was used for this measure. There are two items from that survey used to measure these concepts:

1. Access to routine care = the percentage who responded that they 'Usually' or 'Always' got an appointment for a check-up or routine care at a doctor's office as soon as they needed.
2. Unmet need for routine care = the percentage who responded that there was a time when they needed a check-up or routine care but could not get it for any reason.

Proposed analytic method

Means tests between WP/MPC members and three comparison groups (MSP-IE, MSP-SSI, IowaCare).

Variations from proposed method

We used means tests to compare 1) WP members to MSP-IE members and 2) MPC members to MSP-IE members. Statistical comparisons of WP and MPC members to MSPSSI adult members and pre-implementation IowaCare members were not conducted. Please refer to the methods section for a more detailed description of why these comparisons were not done.

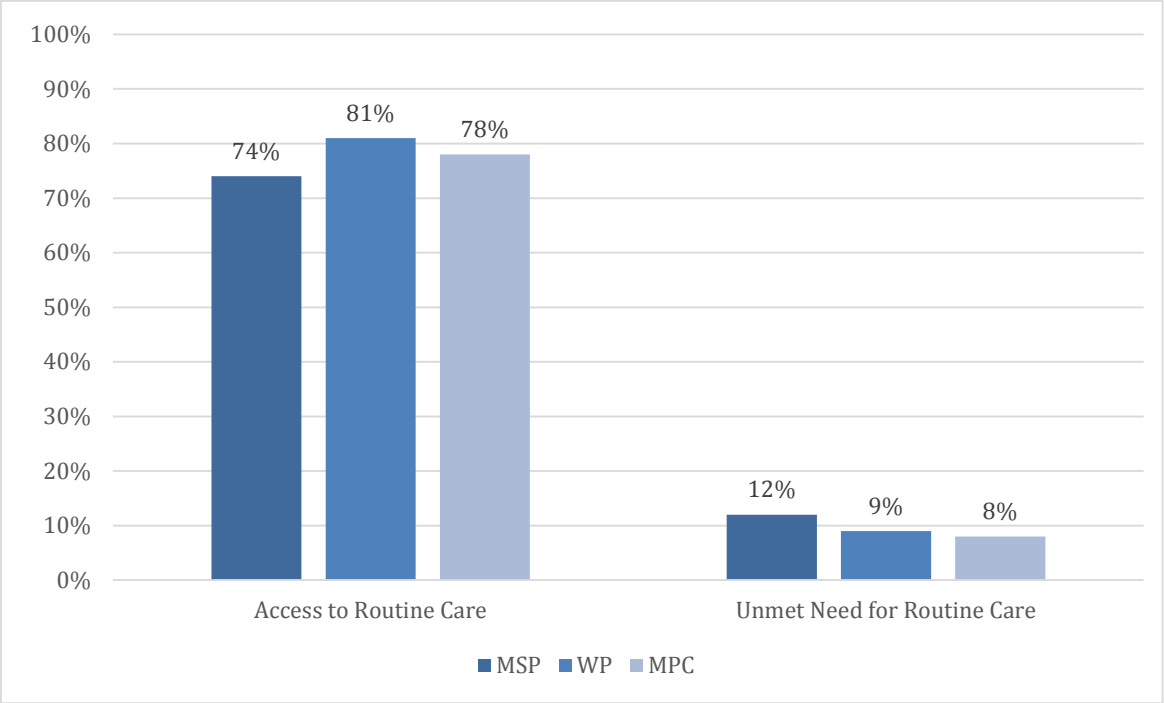
Results

Figure 4 provides the percentages of access to and unmet need for routine care for WP, MPC, and MSP-IE members. Access to routine care was comparable between WP (81%) and MPC (78%) members and between MPC and MSP-IE (74%) members. However, access to routine care was statistically significantly higher for WP members compared to MSP-IE members.

Unmet need for routine care ranged from 8% for MPC to 12% for MSP-IE. There were no statistical differences among the three groups.

As with reported access to urgent care, fewer IowaCare members in 2012 reported consistent (usually or always) access to routine care (68%) and about one-quarter (25%) reported an unmet need for those same services. Access to and unmet need for routine care reported by MSP-SSI members was similar to the other groups in the post-implementation period. The majority of MSP-SSI members (81%) reported access to routine care with 11% reporting an unmet need.

Figure 4. Access to and unmet need for routine care



Measure 5 Timely Appointments, Care, and Information

Definition

The 2014 member survey was used for this measure. This is a CAHPS composite measure designed to assess respondent experience with getting appointments for care as soon as needed, the time spent at the office waiting for the appointment, and receipt of timely answers to questions. Composite measures combine results for closely related items that have been grouped together conceptually and analytically. Five survey items were combined for this measure:

1. When you needed care right away, how often did you get care as soon as you needed?
2. How often did you get an appointment for a check-up or routine care at a doctor's office or clinic as soon as you needed?
3. When you phoned a doctor's office during regular office hours, how often did you get an answer to your medical question that same day?
4. When you phoned a doctor's office after regular office hours, how often did you get an answer to your medical question as soon as you needed?
5. How often did you see a doctor within 15 minutes of your appointment time?

Proposed analytic method

RDD between WP/MPC and MSP-IE at the threshold.

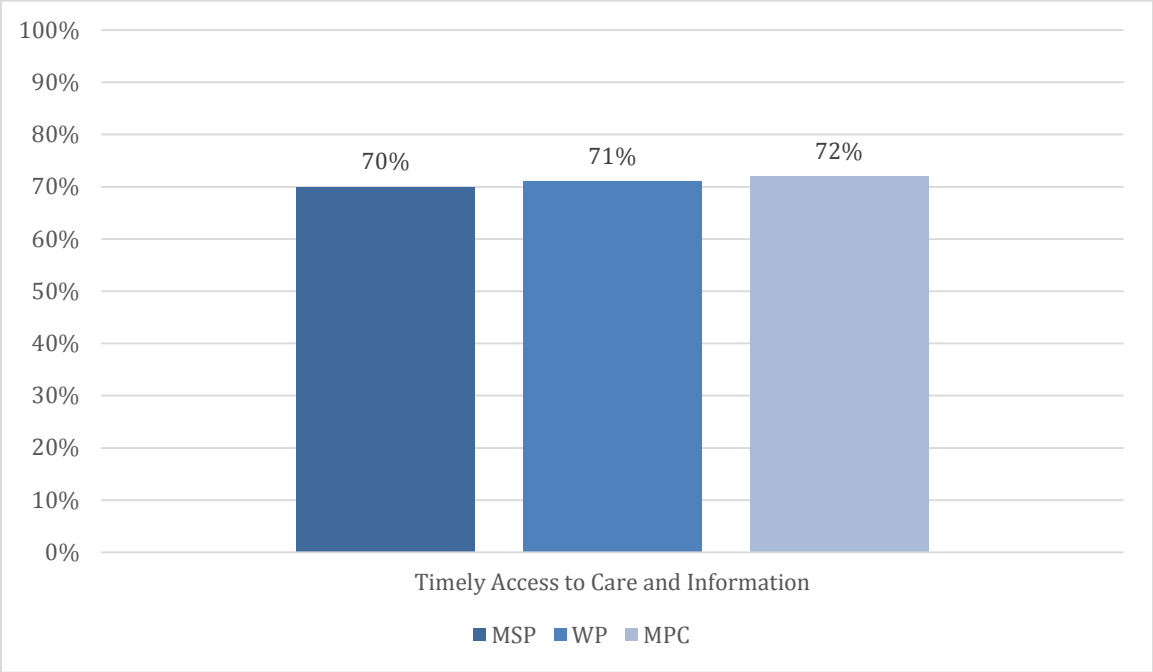
Variations from proposed method

The composite measure changed from three items in the evaluation plan to five items to align with the most recent CAHPS definitions. RDD was not conducted due to sample size limitations at the threshold. Instead, we used means tests to compare 1) WP members to MSP-IE members and 2) MPC members to MSP-IE members.

Results

Figure 5 provides the percentage per group who reported timely access to care and information (as defined by the composite measure). There was no difference in reported timely access to care and information among the three comparison groups (MSP-IE, WP, and MPC) with around 70% reporting usually or always experiencing timely access.

Figure 5. Timely Access to Care and Information



The experiences of MSP-SSI members were similar with 71% reporting access to timely care and information. Less than half (49%) of IowaCare members in 2012 usually or always experience timely access to care and information.

Measure 6 After-hours care

Definition

There are three measures to this concept:

1. Access to information about what to do for care on evenings, weekends, or holidays = the percentage who responded that their doctor's office gave them information about what to do if they needed care during evenings, weekends, or holidays
2. Access to care after hours = the percentage who responded that they 'usually' or 'always' got the care they needed from a doctor's office during evenings, weekends or holidays (calculated only for those who responded that they needed after-hours care)
3. Received reminders = the percentage who responded that they received reminders between visits about tests, treatments, or appointments in the last 6 months.

Proposed analytic method

RDD between WP/MPC members and MSP-IE members at the threshold

Variations from proposed method

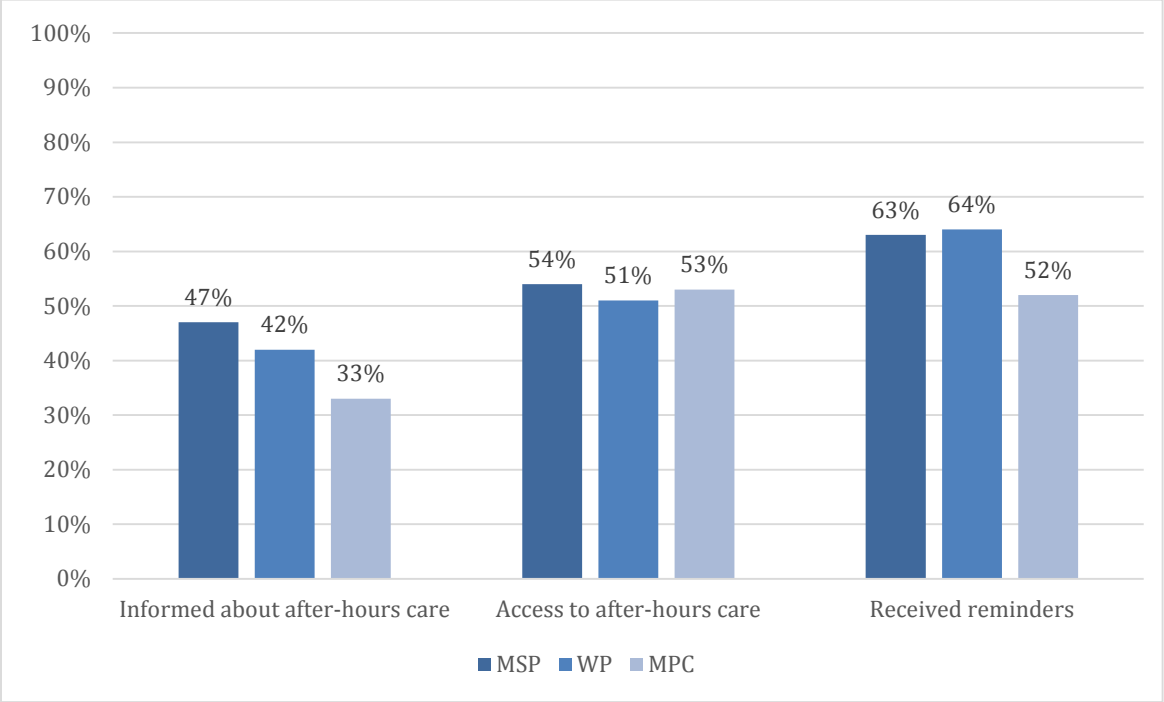
RDD was not conducted due to sample size limitations at the threshold. Instead, we used means tests to compare 1) WP members to MSP-IE members and 2) MPC members to MSP-IE members.

Results

Figure 6 provides the percentage per group reporting receipt of information about after-hours care, usually or always receiving after-hours care, and receipt of test, treatment, or appointment reminders between visits. Less than one-half of MSP-IE (47%) and WP (42%) members reported receiving information from the doctor's office about what to do for care in the evenings, weekends, or holidays. Significantly fewer MPC members (33%) reported receiving this information.

More than half of MSP-IE (54%), WP (51%), and MPC (53%) members reported that they usually or always got the care they needed after regular business hours; with no significant differences among the groups. And, almost two-thirds of MSP-IE (63%) and WP (64%) members received reminders from their doctors' offices between visits while significantly fewer MPC members (52%) reported receipt of reminders.

Figure 6. After-hours care



Similar to MSP-IE and WP members, 43% of MSP-SSI members received information from their doctor's office about how to get care after-hours. However, less than half (40%) reported that they usually or always have access to this care. Over two-thirds (69%) reported receiving reminders. With regard to after-hours care, IowaCare members prior to IHAWP implementation were similar to MPC members post-implementation with 37% reporting receiving information about after-hours care and 54% receiving reminders. Yet, only one-quarter of IowaCare members in 2012 reported usually or always receiving care if they needed it after normal business hours.

Measure 7 Specialist care

Definition

In the survey, specialists were defined to be doctors such as surgeons, heart doctors, allergy doctors, skin doctors, and others who specialize in one area of health care. Respondents were instructed to not include dental visits or care they might have received at a hospital stay when they answered the questions about specialist care.

Access to and unmet need for specialty care was assessed from the surveys in the following manner:

1. Access to specialty care = the percentage who responded that they received an appointment to see a specialist as soon as they needed (calculated only for those who responded that they made at least one appointment to see a specialist).
2. Unmet need for specialist care = the percentage who responded that there was a time when they needed care from a specialist but could not get it for any reason (calculated only for those who responded that they needed care from a specialist).

Proposed analytic method

RDD between WP/MPC members and MSP-IE members at the threshold

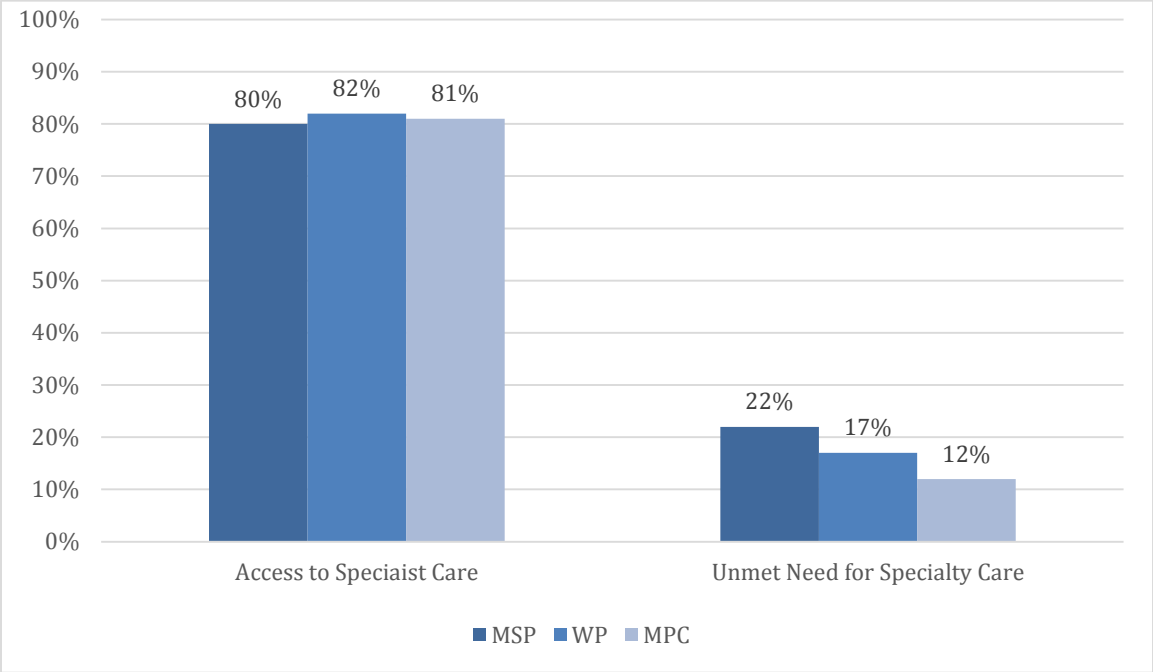
Variations from proposed method

RDD was not conducted due to sample size limitations at the threshold. Instead, we used means tests to compare 1) WP members to MSP-IE members and 2) MPC members to MSP-IE members.

Results

Figure 7 provides the percentage with access to and unmet need for specialist care in these populations. One should use caution when interpreting these results because the total number of respondents who reported having a time when they thought they needed care from a specialist, upon which these responses are based, were very low (MSP-IE n=238, WP n=475, MPC n=254). That being said, for those who needed specialist care, the majority (80-82%) reported that they usually or always got an appointment as soon as they needed. And, almost one-quarter (22%) of MSP-IE members reported an unmet need for specialist care which was similar to WP members (17%) but was significantly higher than reported by MPC members (12%).

Figure 7. Access to and Unmet Need for Specialist Care



Over half (52%) of MSP-SSI members reported that they had a need for specialist care. Of those, over three-quarters (78%) reported that they usually or always got an appointment. MSP-SSI members were similar to WP members with regard to unmet need for specialist care with 16% reporting an unmet need. In 2012, IowaCare members were asked a slightly different question with regard to access to specialist care; namely, how easy it was to get appointments with specialists. Two-thirds of IowaCare members in 2012 reported it was usually or always easy to get specialist appointments with a little over one-quarter (27%) reporting an unmet need for specialist care.

Measure 8 Prescription medication

Definition

In the surveys, access to and unmet need for prescription medication was assessed with the following two measures:

1. Access to prescription medication = the percentage who responded that it was usually or always easy to get prescription medications through their health plan (calculated only for those who responded that they or a health provider thought they needed a prescription medicine for any reason).
2. Unmet need for prescription medication = the percentage who responded that there was a time when they needed prescription medication but could not get it for any reason (calculated only for those who responded that they or a health provider thought they needed a prescription medicine for any reason).

Respondents were instructed to not include birth control when they considered the questions on prescription medications.

Proposed analytic method

RDD between WP/MPC members and MSP-IE members at the threshold

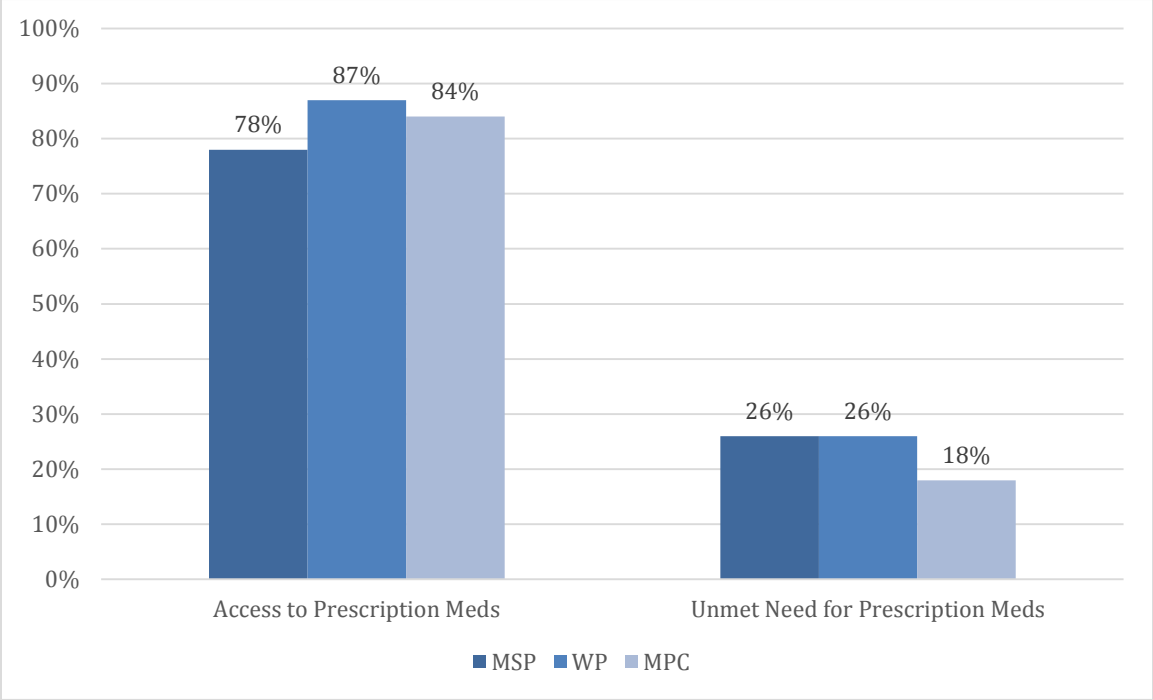
Variations from proposed method

RDD was not conducted due to sample size limitations at the threshold. Instead, we used means tests to compare 1) WP members to MSP-IE members and 2) MPC members to MSP-IE members.

Results

Figure 8 provides the percentages, by group, for access to and unmet need for prescription medications. The vast majority of WP members (87%) and MPC members (84%) reported the most ease in getting prescription medications. A little over three-quarters of MSP-IE members (78%) reported usually or always finding it easy to get medications which was statistically equivalent to MPC members but was significantly less than reported by WP members. There were no statistically significant differences among groups with regard to unmet need for prescription medications.

Figure 8. Access to and Unmet Need for Prescription Medications



Note: Percentages reported are for those who reported a need for prescription medications.

MSP-SSI members reported similar ease of obtaining prescription medications as WP and MPC members with 85% usually or always finding it easy to get their medications. A little over one in five (22%) MSP-SSI members reported an unmet need for prescription medications. In the 2012 survey of IowaCare members, ease of obtaining medications was not asked, and because of the very limited coverage for prescription medications in the IowaCare plan, a comparison of this concept with MSP or IHAWP members may have limited relevance. That fact may also help to explain why more IowaCare 2012 members (43%) reported having an unmet need for medications.

Hypothesis 1.2

Wellness Plan/Marketplace Choice members will have equal or greater access to preventive care services.

Measure 9 Breast cancer screening (Measures 9A and 9B)

9A Percent of women 50-64 who had a mammogram to screen for breast cancer

Definition

NCQA HEDIS BCS; NQF 0031; Adult core measure #3

Proposed analytic method

Means testing between WP/MPC members and three comparison groups before and after implementation

Variations from proposed method

The current measure includes only the WP/MPC members and FMAP for CY2014 and IowaCare and FMAP for CY 2013.

Results

Table 8 provides the proportion of women ages 50-64 who had a mammogram in the five study groups. This measure includes only those women eligible for at least 11 months in each of the following years: CY 2014, CY 2013, and CY 2012. With this limitation, the rates contain no women who enrolled in a Medicaid-related program for the first time in CY 2014, those newly covered due to the IHAWP. Rates were the highest among women in WP and MPC. Women in IowaCare had the lowest rate. This provides one indication that women in WP and MPC are more likely to engage in preventive behaviors, though it is unclear why.

Table 8. Percent of women ages 50-64 who had a mammogram CY 2013 and CY 2014

Age		FMAP 2013	IowaCare 2013	FMAP 2014	WP 2014	MPC 2014
50-64 years	Number	129	240	216	2,098	498
	%	45%	37%	42%	53%	49%

9B Whether a women 50-64 had a mammogram to screen for breast cancer

Proposed analytic method

Models for RDD and DID are still under development.

Measure 10 Cervical cancer screening (measures 10A and 10B)

10A Percent of women 21-64 who were screened for cervical cancer

Definition

NCQA HEDIS CCS; NQF 0032; Adult core measure #4

Proposed analytic method

Means testing between WP/MPC members and three comparison groups before and after implementation

Variations from proposed method

The current measure includes only the WP/MPC members and FMAP for CY2014 and IowaCare and FMAP for CY 2013.

Results

The measure of percent women ages 21-64 who were screened for cervical cancer includes more women than the breast cancer screening measure due to the expanded age range. Women included in the cervical cancer screening rate had to be eligible for at least 11 months in each of the following years: CY 2012, CY 2013, and CY 2014. Rates for cervical cancer screening were the highest for women in FMAP across both years and lowest in IowaCare. Future analyses to determine the factors related to obtaining breast cancer or cervical cancer screening should provide clarification as to why these differences occur.

Table 9. Percent of women ages 21-64 who had cervical cancer screening CY 2013 and CY 2014

Age		FMAP 2013	IowaCare 2013	FMAP 2014	WP 2014	MPC 2014
21-64 years	Number	7,628	3,649	7,455	6,244	1,846
	%	30%	14%	27%	26%	22%

10B Whether women aged 21-64 were screened for cervical cancer

Proposed analytic method

Models for RDD and DID are still under development.

Measure 11 Flu shots in past year (Measures 11A and 11B)

11A Percent of members aged 21-64 who received an influenza vaccination

Data for this measure is not available due to the various sources for flu shots. Though flu shots are covered under the Medicaid program, we are unable to capture flu shots provided at retail outlets or public health sources that do not bill Medicaid.

11B Whether a member aged 21-64 received an influenza vaccination

Data for this measure is not available due to the various sources for flu shots. Though flu shots are covered under the Medicaid program, we are unable to capture flu shots provided at retail outlets or public health sources that do not bill Medicaid.

Measure 12 Chlamydia screening in past year

Percent of women 19-24 years of age who were identified as sexually active and had at least one test for Chlamydia

Definition

NCQA HEDIS CHL; NQF 0033

Proposed analytic method

Means testing between WP/MPC members and the three comparison groups before and after implementation

Variations from proposed method

The current measure includes only the WP/MPC members and FMAP for CY2014 and IowaCare and FMAP for CY 2013.

Results

Table 10 provides rates of Chlamydia screening for women ages 19-24. The Chlamydia screening rate is calculated for women who are sexually active as defined by CPT codes indicating pregnancy and/or contraception related services or contraceptive prescriptions. The numbers of women ages 19-20 within the programs for whom we are able to determine sexual activity are small, making the results unstable over time. Therefore, we will remove this measure in the future.

Table 10. Chlamydia screening for women 19-24 years of age by program and age
CY 2013 and CY 2014

Age		FMAP 2013	IowaCare 2013	FMAP 2014	WP 2014	MPC 2014
19-20 years	Number	44	8	41	58	18
	%	4%	3%	5%	6%	7%
21-24 years	Number	194	53	193	124	32
	%	5%	4%	5%	6%	4%
Total	Number	238	61	234	182	50
	%	5%	4%	5%	6%	5%

Measure 13 Comprehensive diabetes care: Hemoglobin A1c (Measures 13A and 13B)

13A Percent of members with type 1 or type 2 diabetes who had Hemoglobin A1c testing

Definition

NCQA HEDIS CDC; NQF 0057, Adult core measure #19

Proposed analytic method

Means testing between WP/MPC members and the three comparison groups before and after implementation

Variations from proposed method

None

Results

WP and MPC have a higher proportion of members diagnosed with diabetes than FMAP, as might be expected as many of these adults were originally in the IowaCare program in which 9% of members were identified as having diabetes. Members with diabetes in WP and MPC were more likely to have a Hemoglobin A1c than those in FMAP.

For this measure members with diabetes had to be eligible for 11 months in both CY 2013 and CY 2014. Once again, excluding the members in WP and MPC who were newly covered through the expansion and not previously covered in IowaCare. The rate of Hemoglobin A1c in IowaCare members with diabetes was 82% in

2013 leading us to expect a similar rate in WP and MPC during 2014. The rate within the two programs together (IHAWP) is 85%, so despite a lower rate in MPC in CY 2014 than in IowaCare in CY 2013, the combined rate is higher. The rate is essentially unchanged for the FMAP population between CY 2013 and CY 2014.

Table 11. Proportion of population age 19-64 identified as having diabetes with Hemoglobin A1c, CY 2013 and CY 2014

Age		FMAP 2013	IowaCare 2013	FMAP 2014	WP 2014	MPC 2014
Proportion with diabetes	Number	1,661	4,851	2,055	4,472	1,108
	%	5%	9%	6%	10%	8%
Hemoglobin A1c rate	Number	1,224	3,974	1,543	3,887	878
	%	74%	82%	75%	87%	79%

13B Whether a member with type 1 or type 2 diabetes had Hemoglobin A1c testing

Proposed analytic method

Models for RDD and DID are still under development.

Measure 14 Comprehensive diabetes care: LDL-C screening (Measures 14A and 14B)

There were two measures that were attempted to evaluate comprehensive diabetes care in the IHAWP population:

14A Percent of members with type 1 or type 2 diabetes who had LDL-C screening

Definition

NCQA HEDIS CDC; NQF 0063, Adult core measure #18

Proposed analytic method

Means testing between WP/MPC members and the three comparison groups before and after implementation

Variations from proposed method

None

Results

The rate of LDL-C screening for members with diabetes is much lower than that for Hemoglobin A1c with a different pattern between the programs and years. The IowaCare rate is quite low, perhaps indicating an inability to detect the testing when performed in Federally Qualified Health Centers (FQHCs). Global reimbursement for services provided during a visit, may mask the provision of this test. In addition, the highest rate of LDL-C screening was found in MPC members with diabetes and not WP members. The WP members had rates of LDL-C screening comparable to FMAP members. Further delineation of contributing factors may occur with additional analyses.

Table 12. Proportion of population age 19-64 identified as having diabetes with LDL-C screening, CY 2013 and CY 2014

Age		FMAP 2013	IowaCare 2013	FMAP 2014	WP 2014	MPC 2014
Proportion with diabetes	Number	1,661	4,851	2,055	4,472	1,108
	%	5%	9%	6%	10%	8%
Hemoglobin A1c rate	Number	441	272	567	1.255	352
	%	27%	5%	28%	28%	32%

14B Whether a member with type 1 or type 2 diabetes had LDL-C screening

Proposed analytic method

Models for RDD and DID are still under development.

Measure 15 Annual monitoring for patients on persistent medication

Percent of members on a persistent medication (ACE/ARB, digoxin, diuretic, anticonvulsant) who were monitored

Proposed analytic method

Measure moved to later date to allow for supplemental NEMT survey and analyses.

Measure 16 Preventive care

Definition

There are two measures from the survey assessing the access to and unmet need for preventive care defined as follows:

1. Access to preventive care = the percentage who responded that they received any preventive care (such as a check-up, physical exam, mammogram, or Pap smear test) from a doctor's office.
2. Unmet need for preventive care = the percentage who responded that there was a time when they needed preventive care but could not get it for any reason.

Proposed analytic method

RDD comparing WP/MPC members and MSP-IE members at the threshold

Variations from proposed method

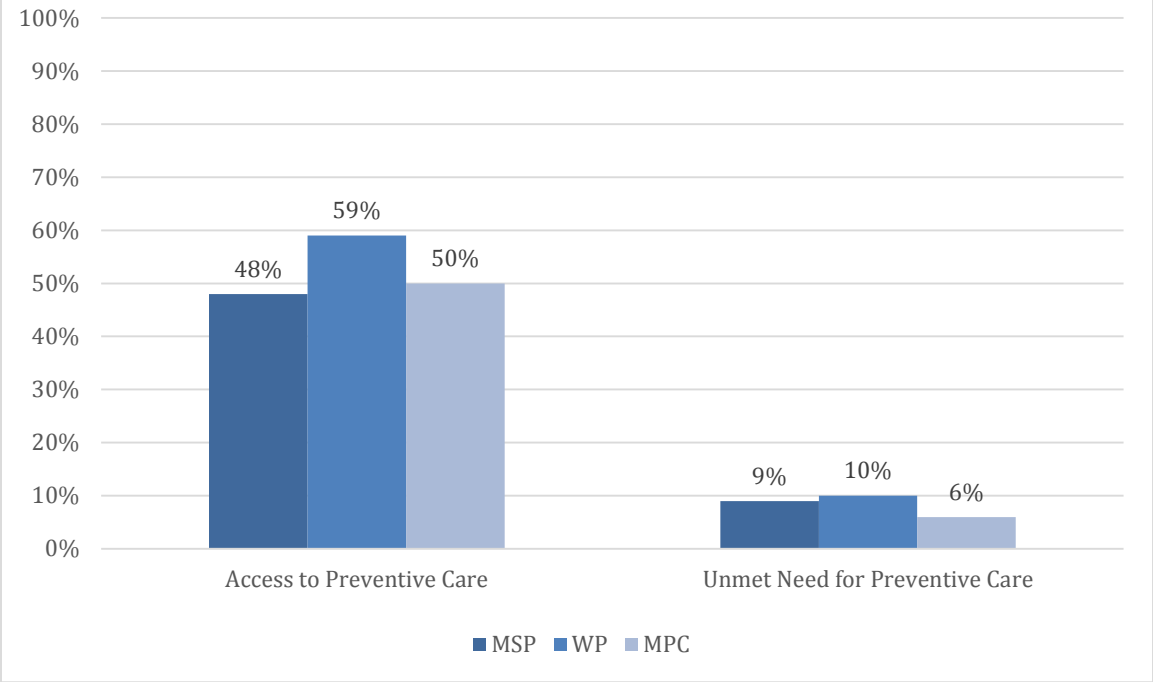
RDD was not conducted due to sample size limitations at the threshold. Instead, we used means tests to compare 1) WP members to MSP-IE members and 2) MPC members to MSP-IE members.

Results

Figure 9 provides a look at member experiences with preventive care. Around 60% of WP members had a preventive care visit which was significantly higher than MSP-IE (48%) and MPC (50%) members. MSP-SSI members reported similar use of preventive services (56%) but IowaCare members in 2012 reported lower use (38%).

Percentages of unmet need were comparable across the three groups (WP, MPC, MSP-IE) with around 10% experiencing an unmet need for preventive services.

Figure 9. Access to and Unmet Need for Preventive Care



Around 10% of MSP-SSI members also experienced an unmet need for these services. Over one-fifth (22%) of IowaCare members in 2012 reported this unmet need.

Hypothesis 1.3

Wellness Plan/Marketplace Choice members will have equal or greater access to mental and behavioral health services.

Measure 17 Anti-depressant medication management (Measures 17A and 17B)

17A Percent of members with major depressive disorder who remained on antidepressant medication

Definition

NCQA HEDIS AMM; NQF 0105, Adult core measure #20

Proposed analytic method

Means testing between WP/MPC members and the three comparison groups before and after implementation

Variations from proposed method

None

Results

Rates provided in Table 13 indicate that members with major depressive disorder (MDD) were much more likely to receive effective acute phase and continuation phase treatment than those in IowaCare or those in FMAP during CY 2013 or CY 2014.

Table 13. Proportion of population age 19-64 identified as having major depressive disorder with effective acute phase and continuation phase treatment, CY 2013 and CY 2014

Age		FMAP 2013	IowaCare 2013	FMAP 2014	WP 2014	MPC 2014
Proportion with major depressive disorder	Number	1,437	560	1,391	1,149	281
	%	4%	1%	4%	3%	2%
Effective acute phase treatment	Number	563	241	574	687	183
	%	39%	43%	41%	60%	65%
Effective continuation phase treatment	Number	361	147	370	562	150
	%	25%	26%	27%	49%	53%

17B Whether a member with major depressive disorder remained on antidepressant medication

Proposed analytic method

Models for RDD and DID are still under development.

Measure 18 Mental health utilization (Measures 18A and 18B)

18A Number and percent of members receiving any mental health services

Proposed analytic method

Protocols for mental health utilization are still being developed and tested.

18B Number of mental health services a member received

Proposed analytic method

Protocols for mental health utilization are still being developed and tested.

Measure 19 Behavioral/emotional care

Definition

There are two measures from the survey to assess access to and unmet need for mental/emotional health care defined as follows:

1. Access to treatment or counseling for a mental or emotional health problem = the percentage who responded that they usually or always found it easy to get the treatment or counseling for a mental or emotional health problem through their health plan (calculated only for those who responded that they had a need for this kind of treatment or counseling).
2. Unmet need for mental/emotional health care = the percentage who responded that there was a time when they needed treatment or counseling for a mental or emotional health problem but could not get it for any reason (calculated only for those who responded that they had a need for this kind of treatment or counseling).

Proposed analytic method

RDD comparing WP/MPC members and MSP-IE members at the threshold

Variations from proposed method

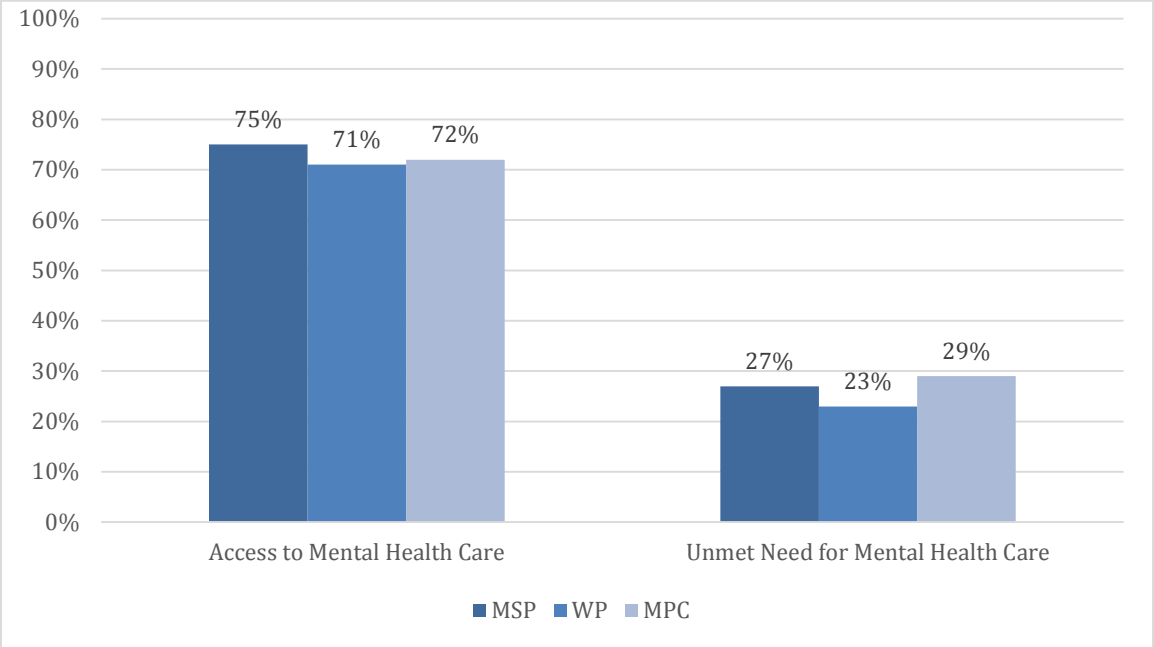
RDD was not conducted due to sample size limitations at the threshold. Instead, we used means tests to compare: 1) WP members to MSP-IE members and 2) MPC members to MSP-IE members with regard to unmet need for mental/emotional health care. Respondent numbers were small with regard to members who reported having had any treatment or counseling for a mental or emotional health problem (MSP-IE: n=111, WP: n=141, MPC: n=67) so we did not conduct statistical testing of the access to mental/emotional health care concept.

Results

For those who reported having received treatment for a mental or emotional health problem, around three-quarters reported that it was usually or always easy to get the treatment they needed using their health plan (MSP-IE: 75%, WP: 71%, MPC: 72%).

The groups were similar with regard to unmet need for mental health care services with 27% of MSP-IE, 23% of WP, and 29% of MPC members reporting an unmet need.

Figure 10. Access to and unmet need for mental or emotional health care



Note: Percentages reported are for those who reported a need for mental or emotional health care.

Slightly higher percentages of MSP-SSI members (79%) reported easy access to treatment when they needed it for a mental or emotional health problem. This item was not asked of IowaCare members in the 2012 survey. MSP-SSI members were similar to these groups with 27% reporting an unmet need for mental health care while IowaCare members in 2012 had a higher percentage (44%) of unmet need for these services.

Hypothesis 1.4

Wellness Plan/Marketplace Choice members will have equal or greater access to care, resulting in equal or lower use of emergency department services for non-emergent care.

Measure 20 Non-emergent ED use (Measures 20A and 20B)

20A Number of non-emergent ED visits per 1,000 member months

Proposed analytic method

The protocol for determining non-emergent ED visits is still being developed.

20B Whether member had a non-emergent ED visit

Proposed analytic method

The protocol for determining non-emergent ED visits is still being developed.

Measure 21 Follow-up ED visits(Measures 21A and 21B)

21A Percent of members with an ED visit within the first 30 days after index ED visit

Definition

Original measure

Proposed analytic method

Means testing between WP/MPC members and the three comparison groups before and after implementation

Variations from proposed method

None

Results

Rates of ED visits and follow-up ED visits were highest for FMAP members in both CY 2013 and CY 2014, while they were the lowest for IowaCare members. This measure is challenging. Because IowaCare members were only allowed to obtain *covered* ED care through the University of Iowa Health Care (Iowa City, Iowa) or Broadlawns Medical Center (Des Moines, Iowa), causing some ED visits to be missed with the claims data used for these analyses. Other analyses using the Iowa Hospital Association (IHA) outpatient visit data which includes all ED visits provided by hospitals located in Iowa has shown that IowaCare members received additional care at non-covered EDs while in IowaCare, a rare occurrence in the other programs. This deflates the IowaCare ED rate artificially.

Without the IowaCare population, the rates of ED and follow-up ED visits are lowest for MPC members and WP members, which are both lower than FMAP members in CY 2013 or CY 2014. Clearly, the results for 2015 will allow more meaningful comparisons between groups over time. In addition, we continue to utilize the IHA data to determine the rates not only for those who were on IowaCare and switched coverage but for those who were covered by MPC and WP but were not covered under a Medicaid-related program during 2013.

Table 14. Proportion of population age 19-64 identified as having an index ED visit with at least one readmission within 30 days, CY 2013 and CY 2014

Age		FMAP 2013	IowaCare 2013	FMAP 2014	WP 2014	MPC 2014
Proportion with index ED visit	Number	13,048	8,029	15,474	16,862	3,472
	%	40%	16%	43%	36%	26%
Proportion with follow-up ED visits	Number	3,977	1,670	4,489	4,352	711
	%	30%	21%	29%	26%	20%

21B Whether member had an ED visit within the first 30 days after index ED visit

Proposed analytic method

Models for RDD and DID are still under development.

Measure 22 Ambulatory Care

Definition

This measure summarizes utilization of outpatient visits and emergency department visits as a rate per 1,000 member months for those ages 19-64 years enrolled for at least 1 month during the measurement year. NCQA HEDIS AMB

Proposed analytic method

Means testing between WP/MPC members and the three comparison groups before and after implementation

Variation from Proposed Analysis

None

Results

Protocols for ambulatory care are being developed.

Hypothesis 1.5

Wellness Plan/Marketplace Choice members without a non-emergency transportation benefit will have equal or lower barriers to care resulting from lack of transportation.

Measure 23 Barriers to care due to transportation

Definition

We examined member experiences with transportation to and from health care visits. There were several questions concerning the concept of access to transportation (related to health care visits) in the surveys:

1) Type of transportation used most often (descriptive assessment).
2) Need for transportation assistance from others to get to health care visits = percentage who report 'usually' or 'always'.

3) Unmet need for transportation services = the percentage who responded that there was a time when they needed transportation to or from a health care visit but could not get it for any reason (in the last 6 months).

4) Use of the Medicaid NEMT benefit = the percentage who reported ever having used transportation paid for by Medicaid to get to or from a health care visit.

5) Worry about cost of transportation = the percentage who respond that they worry 'a great deal' about their ability to pay for the cost of transportation to or from a health care visit.

Proposed analytic method

RDD comparing WP/MPC members and MSP-IE members at the threshold

Variations from proposed method

RDD was not conducted due to sample size limitations at the threshold. Instead, we used means tests to compare:

1) WP members to MSP-IE members, and 2) MPC members to MSP-IE members with regard to these transportation items. Following discussions with CMS, we added multivariable modeling to evaluate the association of a variety of characteristics with unmet need for NEMT and the association of unmet need for NEMT and plan type along with other characteristics with health services utilization measures. The results of these models can be found in the Areas of Emphasis section on NEMT toward the end of this interim report.

Results

In the surveys, members were asked: *"When you need to get health care, what is the type of transportation you use most often to get to your visit?* (Please choose only one answer.)" The majority of respondents from all three groups drove themselves (77% MSP-IE, 65% WP, 82% MPC) or were driven by family or friends (17% MSP-IE, 24% WP, 14% MPC) to their health care appointments. Around 2% of MSP-IE, 3% of WP and 1% of MPC members reported no reliable way to get to their health care visits.

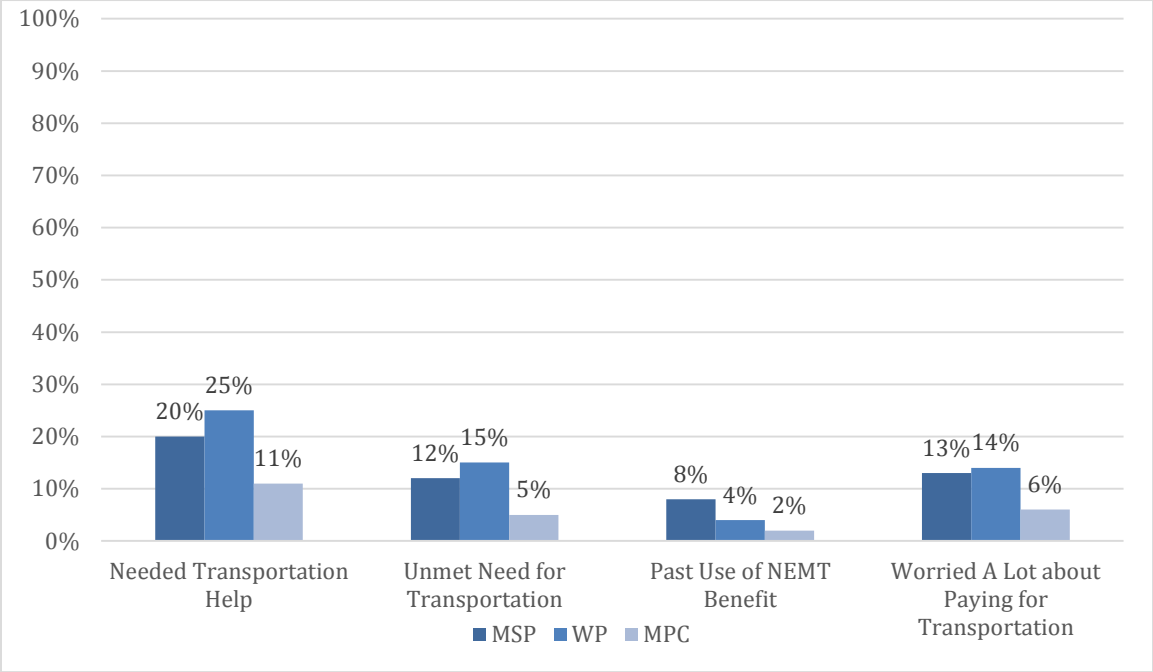
One-quarter of WP members reported usually or always needing assistance from other sources to get to a health care visit which was significantly higher than reported by MSP-IE members (20%). Yet, 11% of MPC members reported needing this help which was significantly lower than reported by MSP-IE members. A little over half (51%) of MSP-SSI members needed help from others to get to their health care visits. IowaCare members in 2012 were not asked this series of questions. However, 18% of IowaCare members in 2012 did report that they usually or always had a problem finding transportation to appointments when they needed routine care.

WP and MSP-IE members reported similar percentages of unmet need for transportation to health care visits (MSP-IE: 12%, WP: 15%) but a significantly lower percentage of MPC members (5%) reported unmet transportation needs when compared to MSP-IE members. Almost one-quarter (23%) of MSP-SSI members reported an unmet need for transportation to health care visits.

When members were asked if they had ever used transportation paid for by Medicaid to get to appointments, 8% of MSP-IE members replied that they had which was, as expected, significantly higher than reported by WP (4%) and MPC (2%) members. Almost 20% of MSP-SSI members had used transportation paid for by Medicaid.

Finally, significantly higher percentages of MSP-IE members (13%) and WP members (14%) reported worrying a great deal about their ability to pay for the cost of transportation to or from a health care visit when compared to MPC members (6%). Yet, the worry was the highest for MSP-SSI members with 22% worried a great deal about paying for transportation.

Figure 11. Member Experiences with Transportation to Health Care Visits



Hypothesis 1.6

Wellness Plan/Marketplace Choice members ages 19-20 years will have equal or greater access to EPSDT services.

Measure 24 EPSDT utilization (Measures 24A and 24B)

24A Percent of members age 19-20 with at least one EPSDT-related visit as defined by EPSDT procedure code modifiers

Variations from proposed method

Member numbers for this measure are low, we continue to investigate the best method for reporting this measure.

24B Whether member had an EPSDT visit

Variations from proposed method

Models for RDD and DID may be removed in the future due to low member numbers for this measure.

Churn

Question 2 *What are the effects of the Wellness plan/Marketplace Choice on member insurance coverage gaps and insurance service when their eligibility status changes (churning)?*

Hypothesis 2.1

Wellness Plan/Marketplace Choice members will experience equal or less churning.

Measure 25 Gaps in coverage in past 12 months

Survey Definition

One survey item was used to assess gaps in insurance coverage in the year prior to the survey. Only WP and MPC member surveys included this item. MSP-IE and MSP-SSI members were not asked this question. The measure was defined in the following way:

> Time without insurance = number of months in the previous year when the respondent did not have health insurance coverage.

Proposed analytic method

RDD comparing WP/MPC members and MSP-IE members at the threshold

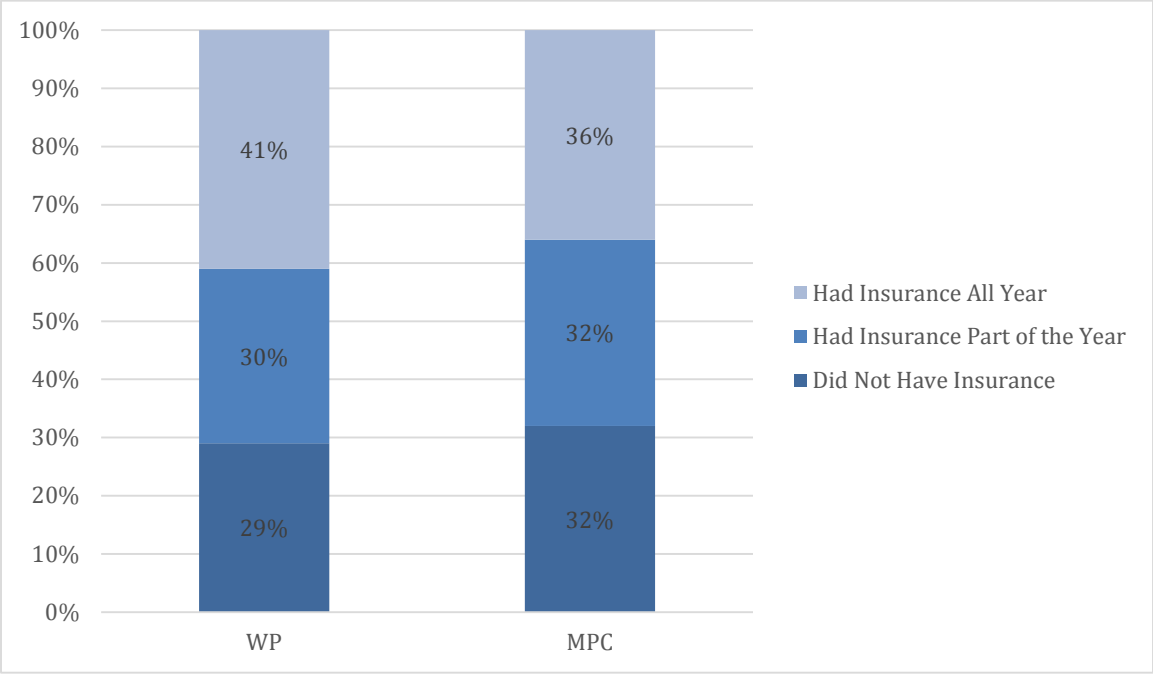
Variations from proposed method

RDD was not conducted due to sample size limitations at the threshold. We also did not have an MSP-IE comparison group for this item. Instead, we used means tests to compare WP members to MPC members.

Survey Results

Figure 12 provides a comparison of insurance coverage between WP and MPC members. Around 30% of all IHAWP members reported that they did not have any health insurance coverage in the year prior to the IHAWP. There were no significant differences in past insurance coverage between WP and MPC members.

Figure 12. Insurance Coverage in the Year Before IHAWP



Measure 26 Consecutive months covered by an insurance plan

Percent of members with 6 months continuous eligibility and 12 months continuous eligibility

Measure 27 Number of times member changes plans and/or loses eligibility during the year

Whether member: 1) did not change plans or lose eligibility; 2) changed plans or lost eligibility once; 3) changed plans or lost eligibility 2-3 times; or 4) changed plans or lost eligibility 4 or more time.

Administrative claims definition

Program churn can be defined as the movement of enrollees into and out of Medicaid programs with or without a gap in coverage.

Administrative claims method

For our assessment of churn we compare the Medicaid population including IowaCare in CY2013 (the year prior to the start of the IHAWP) to the Medicaid population and IHAWP in CY2014.

Variations from proposed method

None

Results

There were 10,042 IowaCare members who were not auto-enrolled into IHAWP. Of those, 2,299 members were subsequently covered through the Medicaid State Plan (MSP) or IHAWP leaving 7,743 not receiving coverage through MSP or IHAWP during CY2014. Those covered through MSP were enrolled through income eligibility (N=501), disability eligibility (N=31), the Family Planning Waiver (a program providing access only to family planning services, N=108), and Medicaid for Employed People with Disabilities (N=2). 1,000 people were

subsequently enrolled in WP and 657 were enrolled in Marketplace Choice. The gap between IowaCare coverage and coverage through another program varied from no gap (N=711) to 11 months (N=89) as shown in Figure 13.

Figure 13. Gap in coverage for those not auto-enrolled in IHAWP, CY 2014

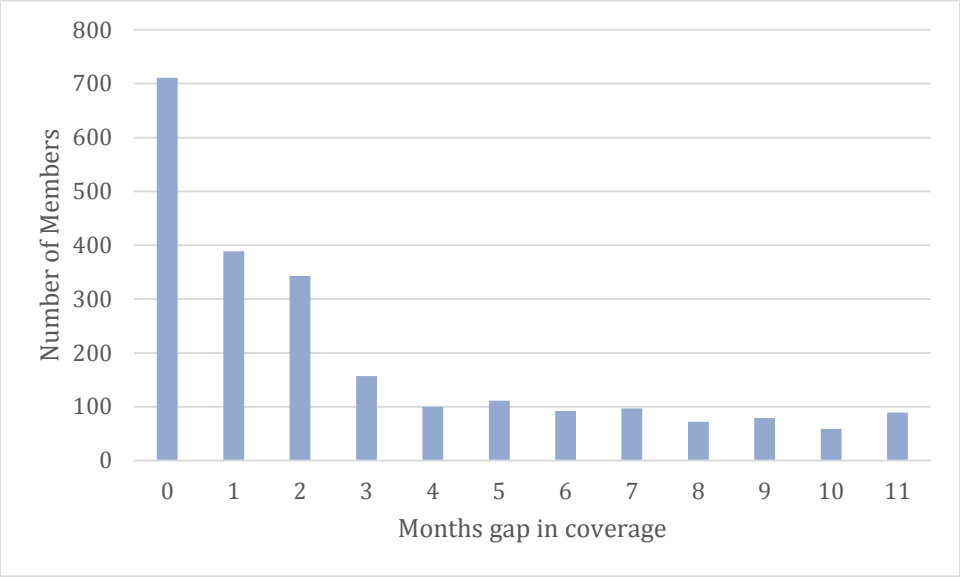


Table 15 provides the number of switches and length of gaps in coverage by program and year for both the year prior to the IHAWP and the first year of the program. Four groups are used in these comparisons: 1) FMAP CY 2013 and CY 2014; 2) IowaCare for CY 2013; 3) WP; and 4) MPC. Though members may have moved between programs, they are categorized according to the program of first enrollment for Table 15. A switch is indicated whenever there is a change in program during the year. Members in FMAP are generally the least likely to experience a switch and tend to have the smallest gaps in coverage, while those auto-enrolled from the IowaCare program were most likely to have a switch, however, most of these switches did not involve a gap in coverage. This indicates that there was a change in program commensurate with a change in circumstances. Though changes in program are not always simple or easy for members, those that do not result in gaps of coverage may be considered 'positive' churn within the publicly provided programs.

Table 15. Number and percent of members with at least one switch and the months of gap during switch period by program, CY 2013 and CY 2014

	FMAP CY 2013	IowaCare CY 2013	FMAP CY 2014	WP CY 2014	MPC CY 2014
At least one switch	5,071 (9%)	20,123 (25%)	7,607 (14%)	15,628 (15%)	7,077 (23%)
0 months gap	3,336 (6%)	15,468 (19%)	5,932 (11%)	13,644 (13%)	6,098 (20%)
1-6 month gap	1,315 (2%)	3,573 (4%)	1,319 (2%)	1,805 (2%)	877 (3%)
7-11 month gap	401 (1%)	1,002 (1%)	323 (1%)	172 (<1%)	95 (<1%)
12-16 month gap	19 (<1%)	80 (<1%)	33 (<1%)	7 (<1%)	7 (<1%)

Figure 14. Comparison of IowaCare and FMAP members with at least one switch and the months of gap during switch period by program, CY 2013

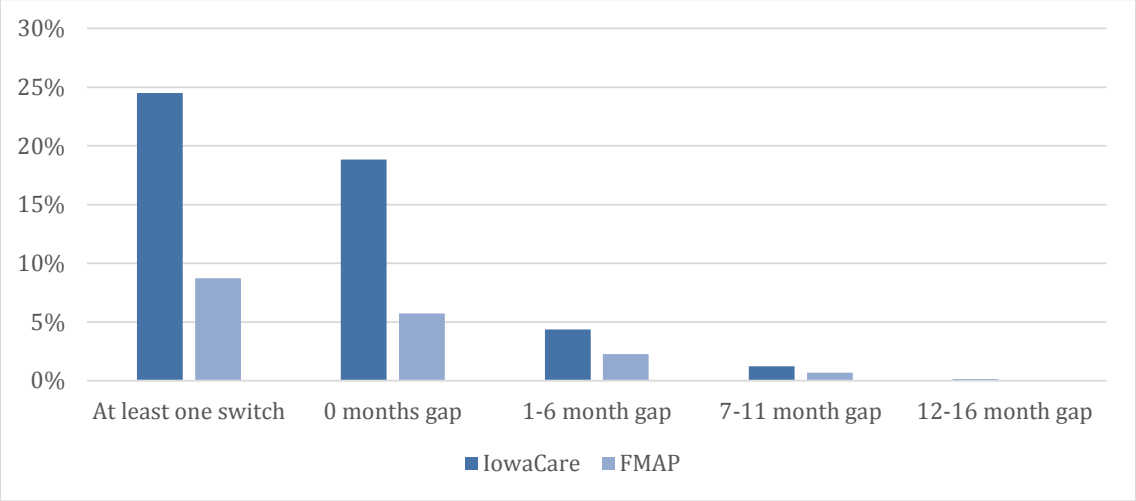
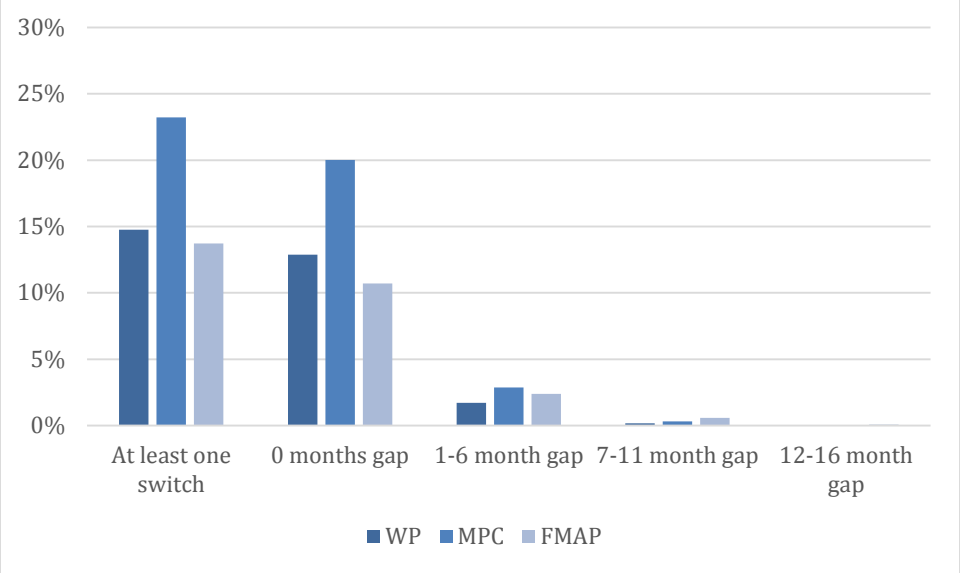


Figure 15. Comparison of WP, MPC, and FMAP members with at least one switch and the months of gap during switch period by program, CY 2014



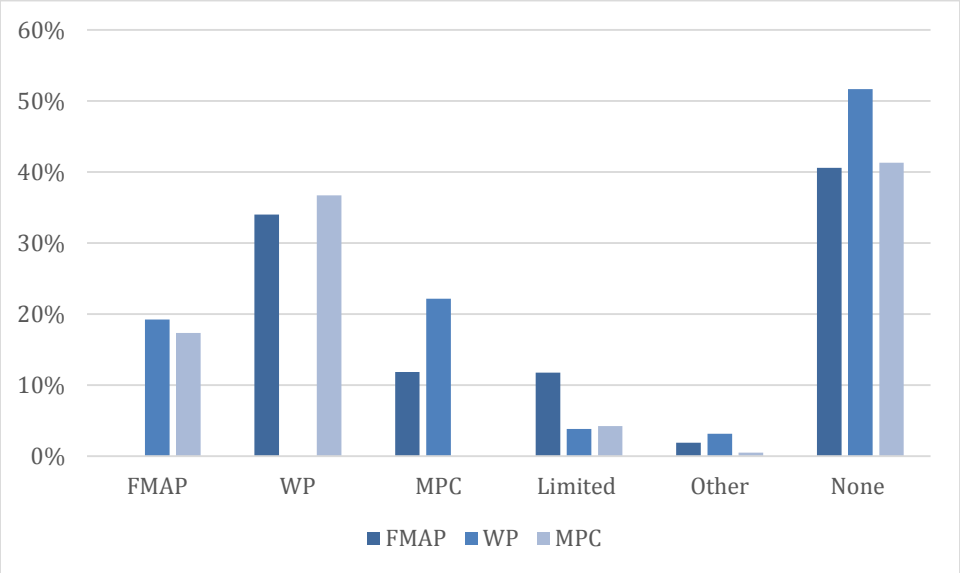
A primary reason for studying churn, particularly in the face of new programs, is to determine whether members who would have lost coverage are able to retain that coverage. Over 10,000 members lost their IowaCare coverage when that program was terminated and replaced with the IHAWP. Of these, 2,299 members were able to obtain coverage again during the year, leaving 7,743 with no coverage from a public insurance program. During CY 2014 the crucial question is what proportion of members who lost coverage in the FMAP were able to obtain coverage either in WP or MPC and what proportion of members who lost coverage in WP were able to obtain coverage in MPC. During CY 2014, 8,301 FMAP members, 19,634 WP members and 6,709 MPC members lost coverage and did not obtain any additional months of coverage through Medicaid or IHAWP by April 2015. Additionally, there were 39,898 times when members had to switch out of a program. Of these, 17, 382 members switched 17, 778 times upward, moving from FMAP to either WP or MPC or moving from WP to MPC, **retaining** coverage when it would not have been possible

without IHAWP. Additionally, 5,730 members moved from WP and MPC to FMAP or from MPC to WP 12,195 times. Table 16 provides the raw number of members and the program they switched out of and the program they moved into. The proportion of members moving from program to program is shown in Figure 16. Some members moved into limited coverage programs which include the Family Planning Waiver, Medicaid for Employed People with Disabilities, and dual Medicare/Medicaid eligibility (Limited), while some members entered 'Other' programs which include specified waivers.

Table 16. FMAP, WP, and MPC member switches, CY 2014

Program member entered	Program member left		
	FMAP	WP	MPC
FMAP	0	7,431	2,733
WP	6,838	0	5,792
MPC	2,380	8,560	0
Limited	2,363	1,470	665
Other	376	1,212	78
Total	11,957	18,673	9,268

Figure 16. The proportion of members leaving FMAP, WP and MPC and the program they entered, CY 2014



'Positive churn', movement into another program as income increases, represents a success for programs aiming to increase health care coverage, while the complete loss of coverage may represent a failure of the system to maintain coverage. Though members may leave the system for many reasons such as moving out of the state or obtaining employer-based health insurance, elopement may also indicate a loss of the physical, cognitive or emotional resources to maintain coverage. Table 17 compares those who made a positive movement by maintaining coverage while their income increased to those who lost coverage and had not

regained it by April 2015. The primary differences between the two groups are that those who experience positive churn are more likely to be white, more likely to be female, and older than those who lose coverage.

Table 17. Demographic characteristics of members with positive churn and members who lost coverage, CY 2014

	Positive churn N (%)	Lost coverage N (%)
Program		
FMAP	4,982 (29%)	8,301 (20%)
WP	8,251 (48%)	19,634 (46%)
MPC	524 (3%)	6,079 (14%)
All other programs	3,625 (21%)	8,314 (20%)
Gender		
Female	11,363 (65%)	22,208 (53%)
Male	6,019 (35%)	20,120 (47%)
Race		
White	11,343 (65%)	21,678 (51%)
Black	1,427 (8%)	3,623 (8%)
American Indian	195 (1%)	444 (1%)
Asian	406 (2%)	721 (2%)
Hispanic	640 (4%)	2,427 (6%)
Pacific Islander	125 (1%)	147 (1%)
Multiple-Hispanic	172 (1%)	470 (1%)
Multiple-Other	126 (1%)	231 (1%)
Undeclared	2,948 (17%)	12,587 (30%)
Age		
18-21 years	731 (4%)	3,528 (8%)
22-30 years	5,094 (29%)	13,741 (33%)
31-40 years	5,080 (29%)	10,780 (26%)
41-50 years	3,481 (20%)	7,280 (17%)
51 and over	2,996 (17%)	6,999 (17%)
County rural/urban status		
Metropolitan	10,553 (61%)	26,271 (62%)
Non-metropolitan, urban	752 (4%)	1,715 (4%)
Non-metropolitan, rural	6,077 (35%)	14,342 (34%)
Total	**17,382**	**42,328**

Hypothesis 2.2

Wellness Plan and Marketplace Choice Plan members will maintain continuous access to a regular source of care when their eligibility status changes.

Measure 28 Proportion who had to change primary care physician when joining the Wellness Plan or Marketplace Choice

Measure 29 Continuity of care and satisfaction if they need to change to a new primary care physician when enrolled with a new plan

Definition

Continuity of care was measured by assessing through the survey whether or not the respondent changed personal doctor after enrolling in their new health plan and ease in changing primary care provider if they chose to do so. The following measures were used:

1. Continuity in personal doctor = Percentage who respond that their currently identified personal doctor is the same person who was their personal doctor before enrolling in the new health plan.
2. Choice to change primary care provider = Percentage who responded that they decided to change primary care providers from the one they were assigned.
3. Ease of change = Percentage who reported that it was 'Somewhat easy' or 'Very easy' to change from their assigned primary care provider.

It should be noted that measure (1) was only assessed for those who identified that they had someone they considered to be their personal doctor. Measure (2) was only assessed for those who identified that they were automatically assigned a primary care provider and measure (3) was only assessed for those who decided to change to a new primary care provider from the one they were assigned.

With regard to continuity with a personal doctor (measure 1), several questions were asked only of IHAWP members. For those with a personal doctor, members were asked "Is your personal doctor the same person who was your personal doctor before you enrolled in your new health plan?" Response options included: Yes, I have the same personal doctor; No, I have a different personal doctor; and I did not have a personal doctor before enrolling in [the IHAWP].

Proposed analytic method

Means tests between WP/MPC members and three comparison groups (MSP – income eligible (IE), MSP – SSI, IowaCare).

Variations from proposed method

We did not have an MSP-IE comparison group for these assessments. Instead, we used means tests to compare WP members to MPC members. These questions were also not asked of MSP-SSI members or on the IowaCare survey.

Results

Figure 17 describes continuity of care with providers for IHAWP members. With regard to continuity with a personal doctor (i.e., remaining with the same personal doctor after enrollment in the IHAWP), significantly more MPC members (64%) than WP members (43%) reported having the same personal doctor as before enrolling in the IHAWP ($p<.0001$). However, significantly more WP members (20%) compared to MPC members (13%) reported having a personal doctor after IHAWP enrollment when they did not have one before ($p=.002$).

As part of the IHAWP enrollment process, members may have been automatically assigned to a primary care provider (PCP) and were given the option to change to a different provider from the one to which they were assigned. Significantly more WP members (57%) than MPC members (30%) reported being automatically assigned to a PCP (p<.0001). And, of those who were auto-assigned to a PCP, significantly more WP members (41%) than MPC members (28%) decided to change to a different PCP (p=.01) with around two-thirds of the members reporting that it was 'very easy' to change from their assigned PCP to a different one (67% WP, 67% MPC).

Measure 30 Regular source of care – Personal Doctor

Definition

The surveys included the following item that was used to assess regular source of care: "Do you have a personal doctor [A personal doctor is the person you would see if you need a check-up, want advice about a health problem, or get sick or hurt.]?" Regular source of care was defined as the percentage who responded that they currently had a personal doctor.

Proposed analytic method

Means tests between WP/MPC members and three comparison groups (MSP – income eligible (IE), MSP – SSI, IowaCare).

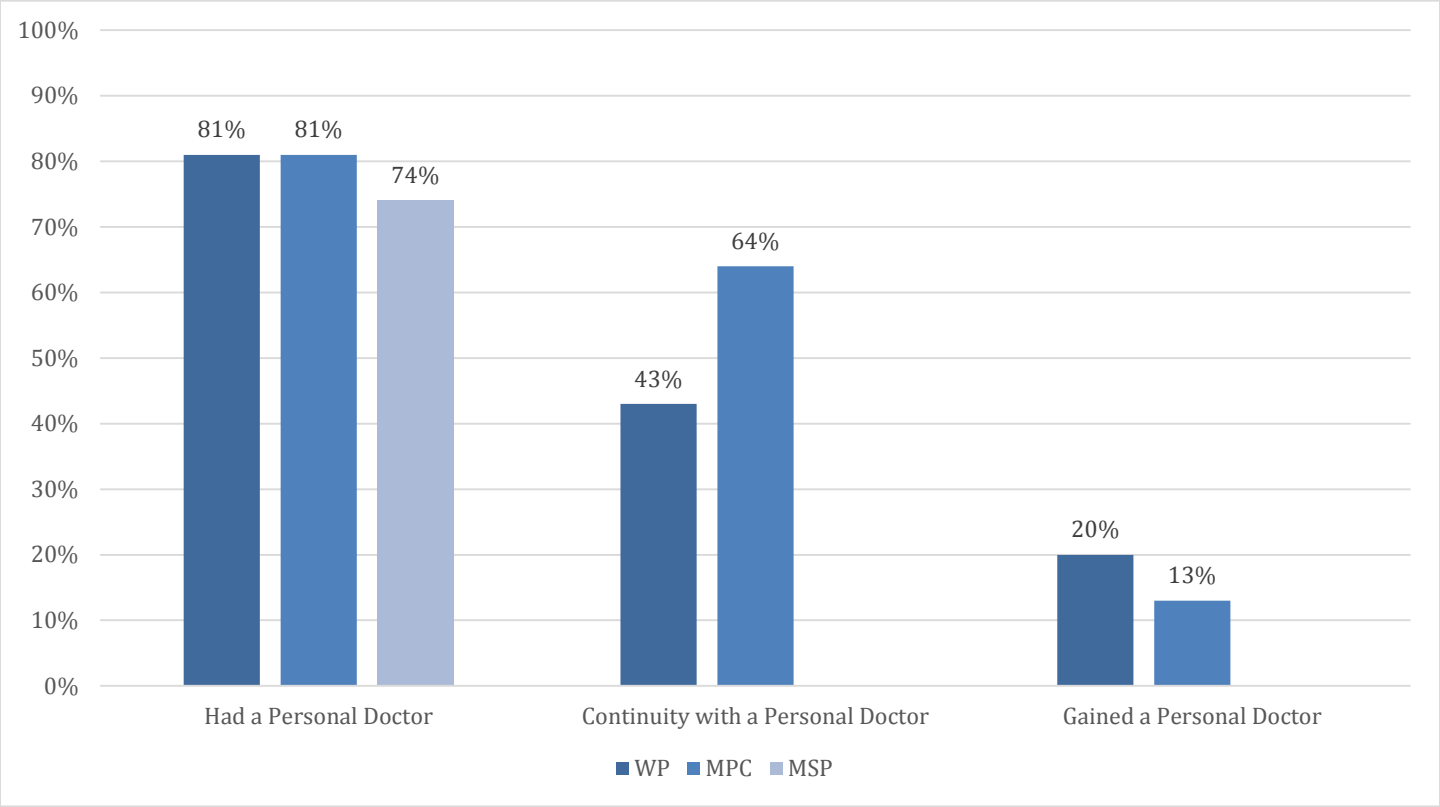
Variations from proposed method

We used means tests to compare 1) WP members to MSP-IE members and 2) MPC members to MSP-IE members. Statistical comparisons of WP and MPC members to MSP-SSI adult members and pre-implementation IowaCare members were not conducted.

Results

Figure 17 describes member experiences with having a regular source of care and continuity with that care. The majority of members reported having a regular source of care (MSP-IE: 81%, WP: 81%, MPC: 74%). Significantly fewer MPC members reported a usual source of care when compared to MSP-IE.

Figure 17. Having a Personal Doctor and Continuity of Care



Most MSP-SSI members (89%) reported having a personal doctor while 67% of IowaCare members in 2012 were able to identify having a personal doctor.

Quality of Care

Question 3 *What are the effects of the Wellness Plan/Marketplace Choice on member quality of care?*

Hypothesis 3.1

WP/MPC members will have equal or better quality of care.

Measure 31 Avoidance of antibiotic treatment in adults with acute bronchitis

Proposed analytic method

Measure is still being developed.

Measure 32 Use of appropriate medications for people with asthma

Definition

The percent of members who were identified as having persistent asthma and who were appropriately prescribed medication during the measurement year

Proposed analytic method

Measure is still being developed.

Measure 33 Medication management for people with asthma

Proposed analytic method

Measure is still being developed.

Measure 34 Pharmacotherapy management of COPD exacerbation (Measures 34A and 34B)

34A The percent of chronic obstructive pulmonary artery disease (COPD) exacerbations for members age 40-64 years of age who had an acute inpatient discharge or emergency department visit during the first 11 months of the measurement year and who were enrolled for at least 30 days following the inpatient stay or emergency department visit and who were dispensed appropriate medications

Proposed analytic method

Measure is still being developed.

34B Whether member meeting above definition experienced at least one COPD exacerbation

Proposed analytic method

Measure is still being developed.

Measure 35 Cholesterol management for patients with cardiovascular conditions (Measures 35A and 35B)

35A Percent of members who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG) or percutaneous coronary interventions (PCI) in the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to the measurement year, who had LDL-C screening during the measurement year

Proposed analytic method

Measure moved to later date to allow for supplemental NEMT survey and analyses.

35B Whether member meeting above Definition had LDL-C screening

Proposed analytic method

Measure moved to later date to allow for supplemental NEMT survey and analyses.

Measure 36 Self-reported receipt of flu shot

Definition

The surveys asked members "Have you had a flu shot since September 1, 2013 [the year prior to the survey]?" This measure is the percentage of respondents who reported having received a flu shot. We calculated this measure for all respondents (age 19-64) and also for the limited age range (50-64) to reflect the CMS measure.

Proposed analytic method

Means tests between WP/MPC members and three comparison groups (MSP-IE, MSP-SSI, IowaCare).

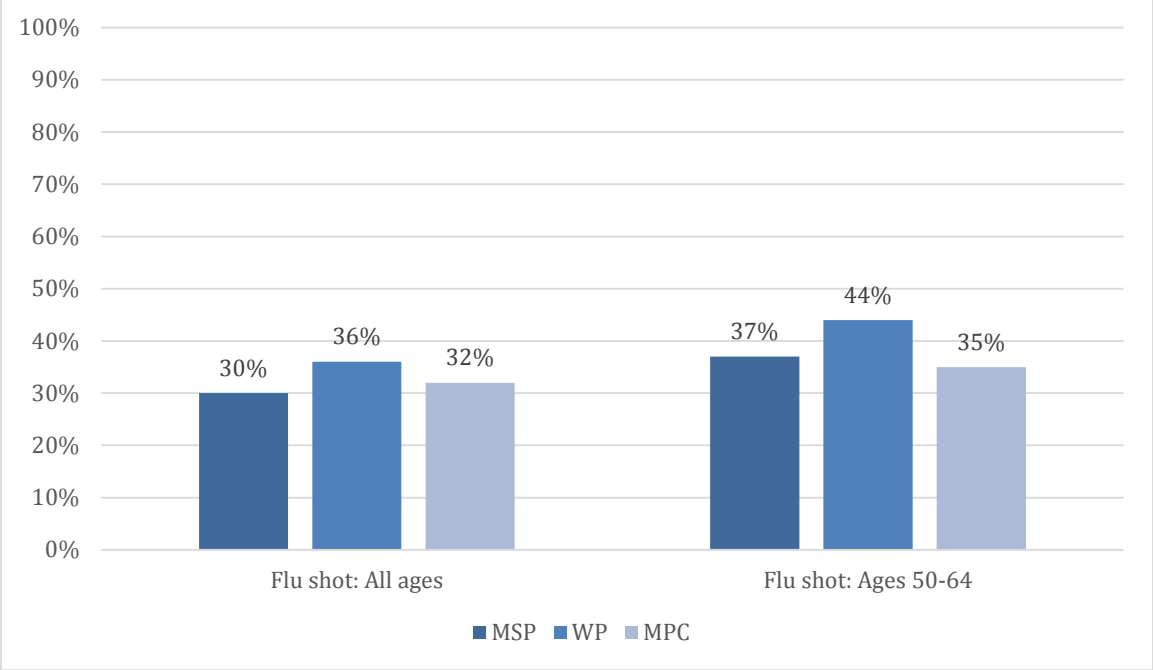
Variations from proposed method

We used means tests to compare 1) WP members to MSP-IE members and 2) MPC members to MSP-IE members. Statistical comparisons of WP and MPC members to MSP-SSI adult members and pre-implementation IowaCare members were not conducted.

Results

Figure 18 provides a summary of the results of members reporting receipt of a flu shot. Over all age groups, a significantly higher percentage of WP members (36%) reported receiving a flu shot compared to MSP-IE members (30%). MPC members were similar to MSP-IE members. Almost half (49%) of MSP-SSI members received a flu shot. Higher percentages of older adults (50-64) reported receiving a flu shot but, likely due to the smaller sample sizes (MSP-IE: n=33, WP: n=502, MPC: n=304), there were no significant differences among the three groups.

Figure 18. Receipt of a Flu Shot



Measure 37 Emergency department use

Definition

To assess potentially avoidable emergency department (ED) use, we asked one item on the survey for those respondents who reported at least one ED visit in the previous six months: "Do you think the care you received at your most recent visit to the emergency room could have been provided in a doctor's office if one was available at the time?" We assessed the percentage of respondents who responded in the affirmative to that question as those whose ED use was potentially avoidable.

Proposed analytic method

Means tests between WP/MPC members and three comparison groups (MSP-IE, MSP-SSI, IowaCare).

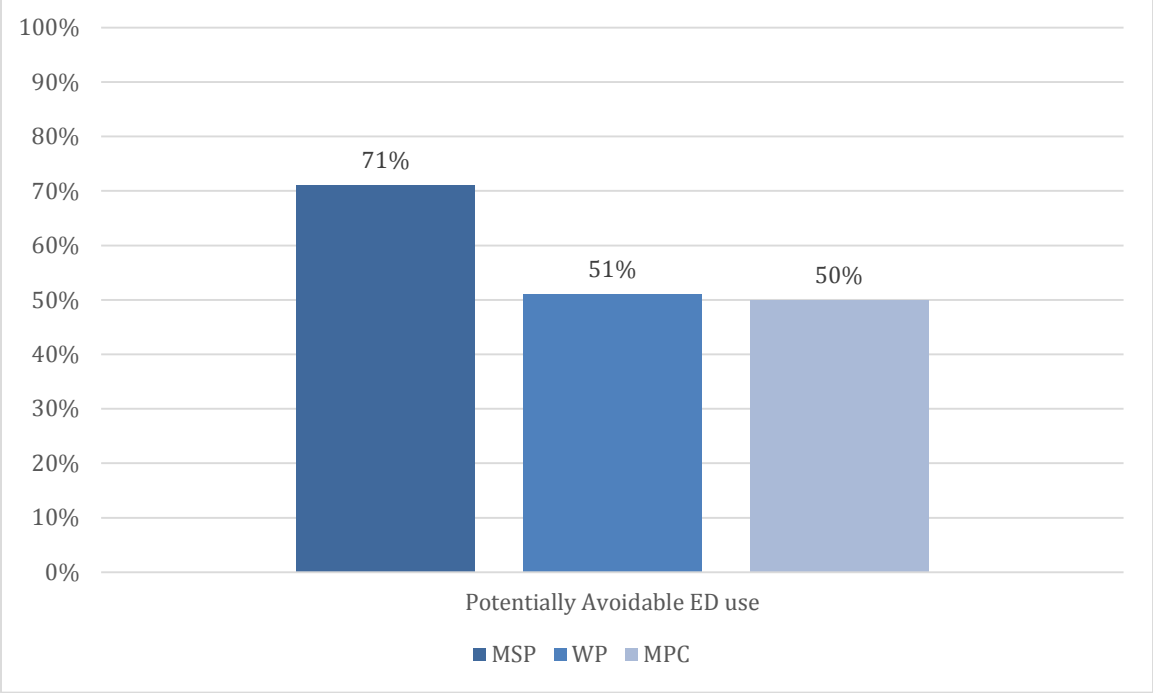
Variations from proposed method

We used means tests to compare: 1) WP members to MSP-IE members; and 2) MPC members to MSP-IE members. Statistical comparisons of WP and MPC members to MSP-SSI members and pre-implementation IowaCare members were not conducted.

Results

Figure 19 provides a snapshot of potentially avoidable ED use by members. In general, MSP-IE members reported the most use of the ED in the past six months (35%; n=232) as compared to WP members (29%; n=309) and MPC members (25%; n=170). Around half of WP members (51%) and MPC members (50%) reported potentially avoidable ED use which was statistically lower than reported by MSP-IE members (71%). MSP-SSI members were similar to WP and MPC members with 51% reporting potentially avoidable ED use while IowaCare members in 2012 fell in between (63%).

Figure 19. Self-Reported Emergency Department Use



Hypothesis 3.2

Wellness Plan/Marketplace Choice members will have equal or lower rates of hospital admissions.

Measure 38 Admission rate for COPD, diabetes short-term complications, CHF, and asthma

The number of discharges for COPD, congestive heart failure (CHF), short-term complications from diabetes or asthma per 100,000 Medicaid members

Proposed analytic method

Measure moved to later date to allow for supplemental NEMT survey and analyses.

Measure 39 Admission rate for COPD (Measures 39A and 39B)

39A Number of discharges for COPD per 100,000 Medicaid members

Proposed analytic method

Measure moved to later date to allow for supplemental NEMT survey and analyses.

39B Whether member had an admission for COPD

Proposed analytic method

Measure moved to later date to allow for supplemental NEMT survey and analyses.

Measure 40 Admission rate for diabetes short-term complications (Measures 40A and 40B)

40A Number of discharges for diabetes short-term complications per 100,000 Medicaid members

Proposed analytic method

Protocol is being developed for final report.

40B Whether member had an admission for diabetes short-term complications

Proposed analytic method

Protocol is being developed for final report.

Measure 41 Admission rate for CHF (Measures 41A and 41B)

41A Number of discharges for CHF per 100,000 Medicaid members

Proposed analytic method

Measure moved to later date to allow for supplemental NEMT survey and analyses.

41B Whether member had an admission for CHF

Proposed analytic method

Measure moved to later date to allow for supplemental NEMT survey and analyses.

Measure 42 Admission rate for asthma (Measures 42A and 42B)

42A Number of discharges for asthma per 100,000 Medicaid members

Proposed analytic method

Measure moved to later date to allow for supplemental NEMT survey and analyses.

42B Whether member had an admission for asthma

Proposed analytic method

Measure moved to later date to allow for supplemental NEMT survey and analyses.

Measure 43 Inpatient utilization-general hospital/acute care

Definition

This measure summarizes utilization of acute inpatient care and services in the following categories: total inpatient, surgery and medicine using number of discharges per 1000 member months, number of days stay per 1000 member months and average length of stay for all members who were enrolled for at least 1 month during the measurement year

Proposed analytic method

Protocol being developed for final report.

Measure 44 Plan "all cause" hospital readmissions

Definition

For members ages 19-64 years who were enrolled for at least on month during the measurement year, the number of acute inpatient stays during the measurement year that were followed by an acute readmission for any diagnosis within 30 days and the predicted probability of an acute readmission

Proposed analytic method

Protocol being developed.

Measure 45 Rate of hospital admissions in past 6 months

Definition

We used the survey to assess reported hospital admissions. For this measure, hospitalization = the percentage of respondents who reported that they spent at least one night in the hospital (for any reason) in the last 6 months.

Proposed analytic method

RDD comparing WP/MPC members and MSP-IE members at the threshold and DID for WP/MPC members and three comparison groups before and after implementation.

Variations from proposed method

Neither RDD nor DID analyses were conducted due to sample size limitations. We used means tests to compare WP members and MPC members to MSP-IE members. We provide statistics for MSP-SSI and IowaCare members but no statistical comparison testing was done with these two groups and the others.

Results

Figure 20 provides the percentages of members who reported at least one hospital stay. A significantly higher percentage of MSP-IE members reported a hospital admission (16%) compared to WP members (11%) and MPC members (8%). The highest percentage of hospital admissions were reported by MSP-SSI members (21%) while reporting by IowaCare members in 2012 (12%) was similar to WP and MPC members.

Measure 46 Rate of 30 day hospital readmissions

Definition

The survey question was "Did you ever have to go back into the hospital soon after being allowed to go home because you were still sick or had a problem?" and was only asked of those who reported at least one hospital stay.

Proposed analytic method

RDD comparing WP/MPC members and MSP-IE members at the threshold

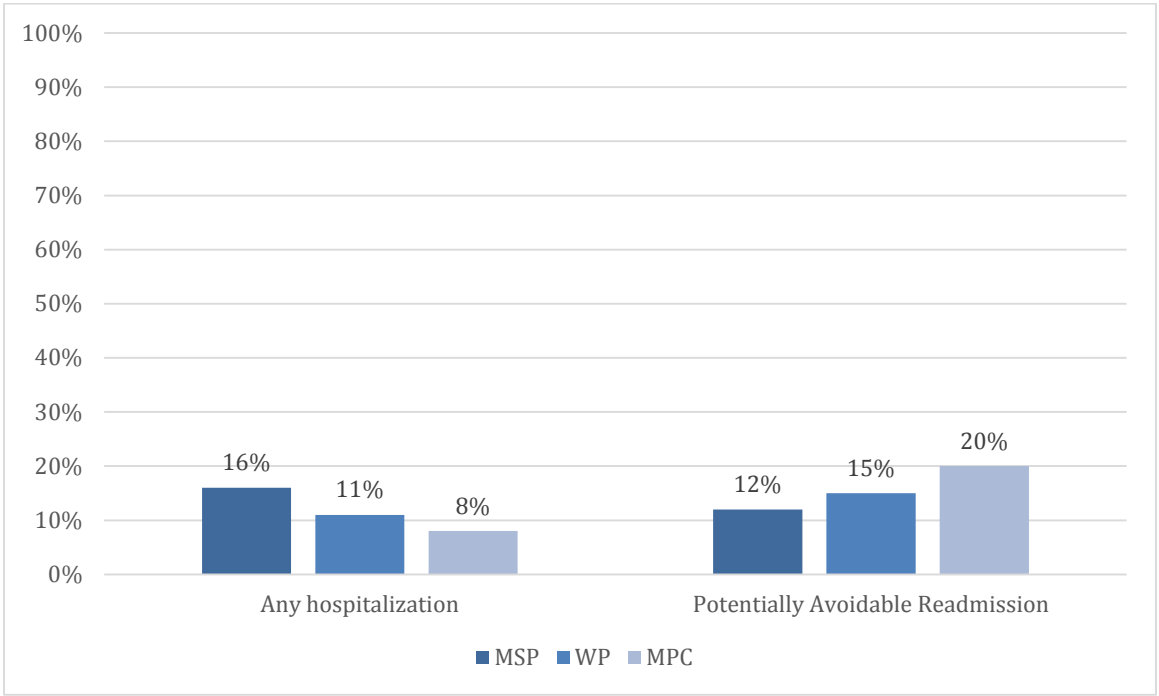
Variations from proposed method

This measure has changed since the evaluation plan. This survey item did not include a time frame for readmission in the question and thus, we cannot define the measure as a rate of 30 day hospital readmission. RDD was not conducted due to sample size limitations at the threshold. Instead, we used means tests to compare 1) WP members to MSP-IE members and 2) MPC members to MSP-IE members with regard to these transportation items.

Results

Figure 20 provides the hospital readmission percentages for MSP-IE, WP, and MPC members. There were no significant differences in percentage of hospital readmission between MSP-IE (12%) and WP members (15%) or MPC members (20%).

Figure 20. Self-Reported Hospital Admissions and Readmissions



Over one-third (34%) of MSP-SSI members and almost one-quarter (23%) of IowaCare members in 2012 reported a hospital readmission.

Hypothesis 3.3

Wellness Plan/Marketplace Choice members will report equal or greater satisfaction with the care provided.

Measures 47 through 50 provide an assessment of member experiences with their providers during office visits. Figure 21 provides the percentages by group for each of these measures.

Measure 47 Provider communication

This is a CAHPS composite measure designed to assess respondent perception of how well their personal doctor communicated with them during office visits.

Definition

Communication between providers and members was assessed using a six-item composite measure comprised of the following questions:

1. How often did your personal doctor explain things in a way that was easy to understand?
2. How often did your personal doctor listen carefully to you?
3. How often did your personal doctor give you easy to understand information about your health questions or concerns?
4. How often did your personal doctor seem to know the important information about your medical history?
5. How often did your personal doctor show respect for what you had to say?
6. How often did your personal doctor spend enough time with you?

A response of usually or always to these questions denoted a good communication experience with the provider. A composite measure defined by CAHPS and incorporating these six items was used to provide a summary measure of member satisfaction with communication with their personal doctor.

Proposed analytic method

Means tests between WP/MPC members and three comparison groups (MSP-IE, MSP-SSI, IowaCare).

Variations from proposed method

We used means tests to compare: 1) WP members to MSP-IE members, and 2) MPC members to MSP-IE members. Statistical comparisons of WP and MPC members to MSP-SSI adult members and pre-implementation IowaCare members were not conducted.

Results

Figure 21 (found after measure 50) provides the percentage of members who usually or always experienced good communication with their provider. The vast majority of MSP-IE (87%), WP (88%), and MPC (91%) members reported usually or always having good communication with their provider and there were not significant differences among these groups. Good communication with a provider was also experienced by the majority of MSP-SSI (88%) members post-IHAWP and IowaCare members (81%) pre-IHAWP.

Measure 48 Self-management support

This is a CAHPS Patient-Centered Medical Home (PCMH) composite measure designed to assess respondent perception of how well their provider supported patients in taking care of their own health (self-management support).

Definition

Self-management support was assessed using a two-item composite measure comprised of the following questions:

1. Did anyone in a doctor's office talk with you about specific goals for your health?
2. Did anyone in a doctor's office ask you if there are things that make it hard for you to take care of your health?

An affirmative response to these questions denoted good self-management support from the provider. A composite measure defined by CAHPS and incorporating these two items was used to provide a summary measure of member satisfaction with how their provider supported them in taking care of themselves.

Proposed analytic method

Means tests between WP/MPC members and three comparison groups (MSP-IE, MSP-SSI, IowaCare).

Variations from proposed method

We used means tests to compare; 1) WP members to MSP-IE members, and 2) MPC members to MSP-IE members. Statistical comparisons of WP and MPC members to MSP-SSI adult members and pre-implementation IowaCare members were not conducted.

Results

Figure 21 (found after measure 50) provides the results of this analysis. A little over half (51%) of WP members, 37% of MSP-IE members, and 43% of MPC members experienced self-management support. Similar to WP members, 50% of MSP-SSI members reported self-management support from their provider. Prior to IHAWP implementation, 44% of IowaCare members reported self-management support during their office visits.

Measure 49 Attention to mental/emotional health (Comprehensive care)

This is a CAHPS Patient-Centered Medical Home (PCMH) composite measure designed to assess respondent perception of how well their provider paid attention to their mental or emotional health which is the CAHPS way to assess the comprehensive care component of the PCMH.

Definition

Comprehensiveness of care was assessed using a three-item composite measure comprised of the following questions about discussions of mental/emotional health:

1. Did anyone in a doctor's office ask you if there was a period of time when you felt sad, empty, or depressed?
2. Did you and anyone in a doctor's office talk about things in your life that worry you or cause you stress?

3. Did you and anyone in a doctor's office talk about a personal problem, family problem, alcohol use, drug use, or a mental or emotional illness?

An affirmative response to these questions denoted provider attention to the members' mental/emotional health. A composite measure defined by CAHPS and incorporating these three items was used to provide a summary measure of member satisfaction with their provider on this attribute.

Proposed analytic method

RDD comparing WP/MPC members and MSP-IE members at the threshold and DID for WP/MPC members and three comparison groups before and after implementation.

Variations from proposed method

Neither RDD nor DID analyses were conducted due to sample size limitations. We used means tests to compare: 1) WP members to MSP-IE members, and 2) MPC members to MSP-IE members. Statistical comparisons of WP and MPC members to MSP-SSI adult members and pre-implementation IowaCare members were not conducted.

Results

Figure 21 (found after measure 50) provides the results of this analysis. Almost half (46%) of MSP-IE members, 47% of WP members, and 42% of MPC members reported that their provider paid attention to their mental/emotional health during office visits. Results were similar for MSP-SSI members (43%) in the post-IHAWP period and IowaCare members (42%) in the pre-IHAWP period.

Measure 50 Shared decision-making regarding medications

This is a CAHPS Patient-Centered Medical Home (PCMH) composite measure designed to assess respondent perception of how well their provider talked with them about their prescription medications which is the CAHPS method to assess the shared decision making component of the PCMH.

Definition

Shared decision-making regarding prescription medications was assessed using a three-item composite measure comprised of the following questions:

1. When you talked about starting or stopping a prescription medicine, how much did the doctor or other health provider talk about the reasons you might want to take a medicine?
2. When you talked about starting or stopping a prescription medicine, how much did the doctor or other health provider talk about the reasons you might not want to take a medicine?
3. When you talked about starting or stopping a prescription medicine, did the doctor or other provider ask you what you thought was best for you?

A composite measure defined by CAHPS and incorporating these three items was used to provide a summary measure of member satisfaction with how well providers shared decision making with them about prescription medications use.

Proposed analytic method

RDD comparing WP/MPC members and MSP-IE members at the threshold and DID for WP/MPC members and three comparison groups before and after implementation.

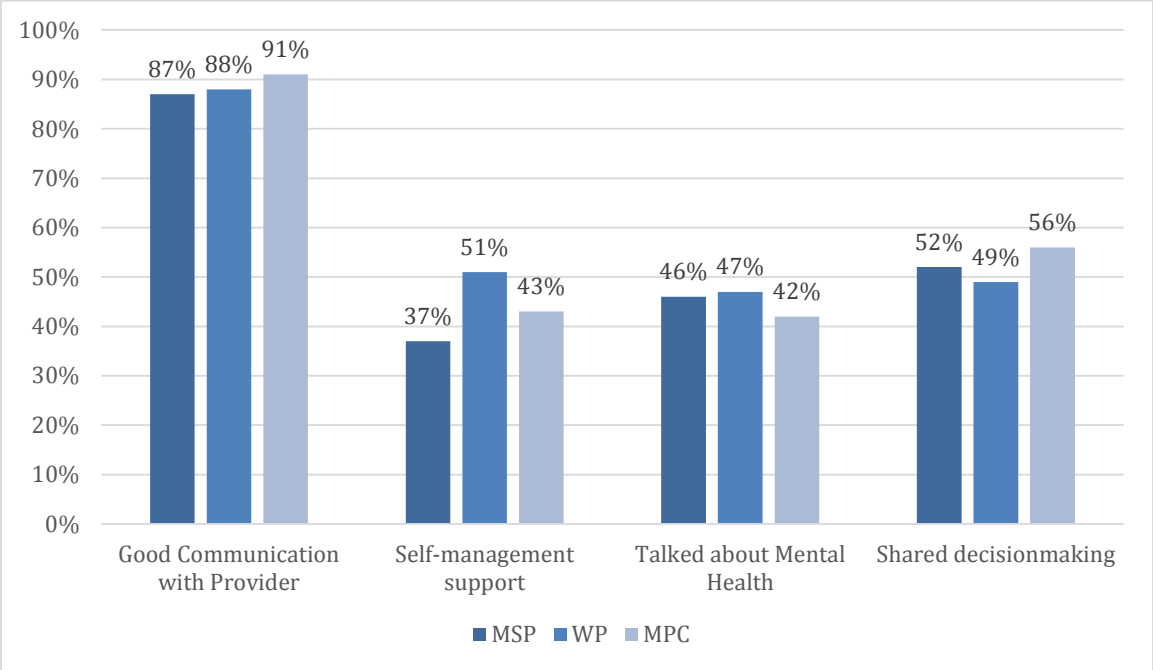
Variations from proposed method

Neither RDD nor DID analyses were conducted due to sample size limitations. We used means tests to compare: 1) WP members to MSP-IE members, and 2) MPC members to MSP-IE members. Statistical comparisons of WP and MPC members to MSP-SSI adult members and pre-implementation IowaCare members were not conducted.

Results

Figure 21 below provides the results of this analysis. Around half of the members from each group (52% of MSP-IE members, 49% of WP members, and 56% of MPC members) reported that their provider shared decision making with them regarding prescription medications. Results were similar for MSP-SSI members (52%) in the post-IHAWP period. A composite for this measure was not calculated for IowaCare members in the pre-IHAWP period (2012).

Figure 21. Member Experiences During Office Visits



Measure 51 Care coordination

There are three individual items in the surveys from the CAHPS Patient-Centered Medical Home (PCMH) items designed to assess respondent perception of their provider's attention to the care they received from other providers. This is the CAHPS way to assess the care coordination component of the PCMH.

Definition

The three items and associated measure definitions related to different aspects of providing care coordination were:

1. Did you get any reminders from a doctor's office between visits?
   (Defined as the percentage of respondents who received reminders)
2. When your doctor's office ordered a blood test, x-ray, or other test for you, how often did someone from the doctor's office follow up to give you those results?
   (Defined, only for those whose doctor's office ordered any testing, as the percentage who reported that their doctor's office usually or always followed-up with them to give them the test results)
3. How often did your personal doctor's office seem informed and up-to-date about the care you got from specialists?
   (Defined, only for those who reported that they got care from a specialist, as the percentage whose doctor's office usually or always seemed informed and up-to-date about the care they got from specialists)

Proposed analytic method

RDD comparing WP/MPC members and MSP-IE members at the threshold and DID for WP/MPC members and three comparison groups before and after implementation.

Variations from proposed method

Neither RDD nor DID analyses were conducted due to sample size limitations. We used means tests to compare: 1) WP members to MSP-IE members, and 2) MPC members to MSP-IE members. Statistical comparisons of WP and MPC members to MSP-SSI adult members and pre-implementation IowaCare members were not conducted.

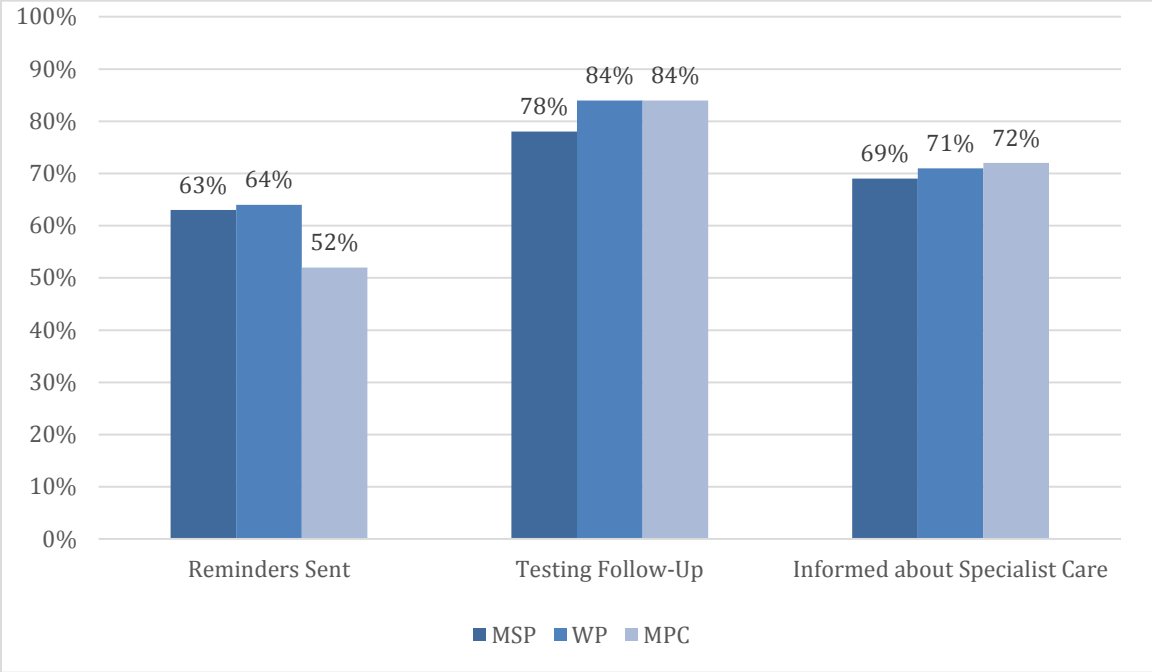
Results

Figure 22 provides the results of the analyses of these care coordination concepts. Almost two-thirds of MSP-IE (63%) and WP (64%) members received reminders from their doctors' offices between visits while significantly fewer MPC members (52%) reported receipt of reminders. Over two-thirds (69%) of MSP-SSI members reported receiving reminders while 54% of IowaCare members prior to IHAWP implementation reported receiving reminders.

The majority of WP and MPC members (84% each) whose doctor's office ordered medical testing reported that the office usually or always followed-up with them to give them the results. Significantly fewer MSP-IE members (78%) reported the same when compared to WP members. Similar to WP and MPC, 86% of MSP-SSI members reported that their doctor's office followed-up with them about medical test results. And, for IowaCare members in 2012 (pre-IHAWP implementation), three-quarters (75%) reported receiving their test results from their doctors' offices which is similar to MSP-IE post-IHAWP implementation.

Finally, there were no significant differences among the three groups with regard to reporting their doctor's office being informed and up-to-date about specialist care (MSP-IE: 69%, WP: 71%, MPC: 72%). Similarly, 75% of MSP-SSI members experienced this aspect of care coordination. Yet, fewer IowaCare members prior to IHAWP implementation (57%) reported that their doctors' office seemed informed about any specialist care they received.

Figure 22. Care Coordination



Measure 52 Rating of personal doctor

Measure 53 Rating of all health care received

Measure 54 Rating of health care plan

Definition

Survey respondents were asked to rate various aspects of the health care they received and also their health plan on a 0 to 10 scale, where 0 was defined as the worst possible and 10 as the best possible. Ratings were obtained for:

1. Personal Doctor (Measure 52)
2. All Health Care Received (Measure 53)
3. Health Plan (Measure 54)

For the analysis, each measure was defined as the percentage of respondents who rated the particular item as a '9' or '10' which indicates the highest possible satisfaction.

Proposed analytic method

Means tests between WP/MPC members and three comparison groups (MSP-IE, MSP-SSI, IowaCare).

Variations from proposed method

We used means tests to compare: 1) WP members to MSP-IE members, and 2) MPC members to MSP-IE members. Statistical comparisons of WP and MPC members to MSP-SSI adult members and pre-implementation IowaCare members were not conducted.

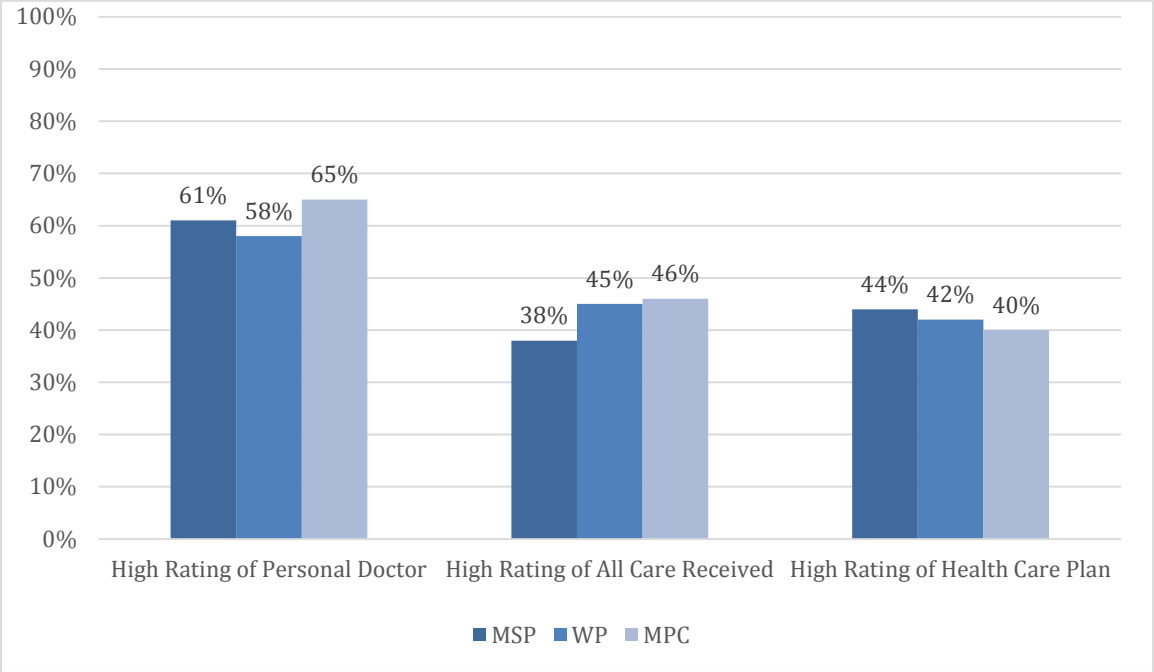
Results

Figure 23 provides the results of the analyses of member satisfaction with their personal doctor, health care, and health plan. There were no significant differences among plans with regard to the percentage with the highest satisfaction with their personal doctor (MSP-IE: 61%, WP: 58%, MPC: 65%). MSP-SSI members were equivalent to MSP-IE members in the percentage with the highest rating of their personal doctor (61%). Half of IowaCare members in 2012 reported the highest level of satisfaction with their personal doctor.

There were significant differences between IHAWP members and MSP-IE members in satisfaction with all of the health care received. More WP members (45%) and MPC members (46%) reported high satisfaction compared to MSP-IE members (38%). Similar to MPC, around half (46%) of MSP-SSI members reported high satisfaction with their health care while one-third of IowaCare members in 2012 (33%) were highly satisfied with all of the health care they received.

MSP-IE, WP, and MPC members reported similar percentages of being highly satisfied with their health plan (44%, 42%, 40%, respectively). More than half (53%) of MSP-SSI members rated their health plan highly but less than one-third (29%) of IowaCare members in 2012 did the same.

Figure 23. Ratings of Health Care and Health Plan



Cost

Question 4 *What are the effects of the Wellness Plan/Marketplace Choice on the costs of providing care?*

Hypothesis 4.1

The cost for covering Wellness Plan/Marketplace Choice members will be comparable to the predicted costs for covering the same expansion group in the Medicaid State Plan.

Measure 55 Compare Wellness Plan / Marketplace Choice PMPM costs to those in the Medicaid State Plan

Per Member Per Month (PMPM) costs calculated for all care and specific cost categories such as inpatient, emergency room, specialist, behavioral/emotional, and prescription medications

Definition

Original measure

Proposed analytic method

Claims data including medical, inpatient, outpatient encounter, and prescription claims will be used to determine PMPM costs for the study period (January 2011-present). Claims data typically require a 3-6 month run out period to ensure that at least 95% of claims have been adjudicated. This varies by claim type with medical claims requiring 3 months and inpatient claims requiring at least six months. PMPM costs will be calculated for all services (total cost), medical care, inpatient care, emergency care, and prescriptions. Though the question of whether the program provides savings can be adequately assessed through the analysis of total PMPM cost, looking at subsets of PMPM costs can help us understand how and in what domains the PMPM costs were most significantly affected. These calculations provide the basis for cost effectiveness analysis.

For the modelling, we will employ RDD and DID. For programs where a natural comparison group exists, DID methods are very useful. RDD is used to offer estimates around specific program thresholds. For program groups where no natural comparisons exist, regression controlling for observed patient or area characteristics will be utilized. The specific analysis technique will depend on the distribution of the dependent variable (e.g., OLS for continuous variables and logistic regression for dichotomous variables with a skewed distribution). When appropriate, person, program or area fixed effects will be used to control for time-invariant individual (or program or area) effects and year effects. Each method has strengths and weaknesses but combined should offer a robust analysis of program effects on costs and outcomes.

We will model PMPM costs using a fixed effects regression modeling technique for the cost categories listed above from 2011 to present including person and time fixed effects for the period. Members will enter the regression for any months in which they are enrolled in one of the plans/programs: The Wellness Plan, enrolled in Medicaid State Plan due to income level, or enrolled in Medicaid State Plan due to disability determination. Sensitivity analysis will include varying the groups included in the analysis, varying the time component and Discontinuity Regression around the income threshold. In addition, costs for members in the HMO will be calculated both with the actual costs (capitation, additional services) and with service fees attached to the services provided as identified through the encounter data.

$$PMPM_{it} = \alpha_i + \beta_1 Group_{it} * POST_t + \beta_2 Group_{it} + \beta_3 Post_t + \boldsymbol{x}'\beta_4 + \beta_{5t} Year_t + u_{it}$$

Where $POST_t$ is a dummy variable for observations after the program has taken effect, α_i identifies individual fixed effects, and $YEAR_t$ captures time trends.

PMPM cost-PMPM costs for members in the PCCM or under the FFS payment structure will be calculated using the cost of all services plus any care coordination fees. For members in the HMO, PMPM will be calculated using two methods. First, the analysis will be completed with PMPM costs calculated as the capitation rates plus costs for services that may be provided under Medicaid outside the HMO such as for specific waivers. Second, HMO PMPM costs will be calculated as though the member had not been enrolled in the HMO by applying the Medicaid fee schedule to HMO encounter data in an effort to estimate what the actual costs to Medicaid would have been without this managed care option.

Group-represents a series of indicator variables that provide study group comparisons. The variables will capture whether the individual was in the program of interest. As part of the interrupted time series design, we can also capture whether an individual has switched programs in a given month. We will use dummy indicators for whether during the month a member was in the Wellness Plan (0,1), IowaCare (0,1), enrolled in Medicaid due to disability determination (0,1), or enrolled in Medicaid due to low income (0,0).

X represents a matrix of covariates including:

Payment structure- series of dichotomous variables that provide payment structure comparisons. The variables will indicate whether during the month a member was in the HMO (0,1), PCCM (0,1), or fee-for-service (0,0).

Age-calculated monthly

Age squared-to allow for a curvilinear relationship between age and costs

Gender

Race-within the Medicaid data 30% of enrollees/members do not identify a race. Previous analysis have indicated that this option does not appear to have a race-based bias or systematic component. We will perform the analysis with this group identified as race 'Undisclosed' and without this group.

Number of chronic conditions-The Health Home program in Iowa Medicaid utilizes seven diagnoses to establish member participation: mental health condition, substance use disorder, asthma, diabetes, heart disease, overweight, and hypertension. A count of these conditions will serve as the chronic conditions measure though the severity of impairment will be unattainable.

Risk adjustment-Risk stratification provides an adjustment for the model to determine whether there are high-risk groups of enrollees whose costs are more likely to be reduced through the Wellness Plan. If the group benefitting from the program is small the change in cost may not be evident in generalized models. By adjusting for risk we will be able to elucidate these PMPM cost differences for potentially smaller groups. We are investigating using a modified King's Fund Combined Model algorithm, which utilizes inpatient stays, emergency department visits and outpatient visits in the previous 12 months to construct risk strata.[7] Additionally, we will attempt to develop risk stratification based on medical diagnoses, physical diseases and disorders. We will determine the exact method of stratifying the enrollees once we are able to analyze the data and determine whether we are able to construct risk stratification for each month and how we will provide a risk stratification mechanism for the control groups.

Inclusion in other reform initiatives-The analysis will include whether the enrollee/member is participating in any other reform initiatives provided through the Medicaid program including health home for chronically ill, integrated health home, or other initiatives that may develop over the course of the evaluation.

Rural/urban-Rural-urban continuum codes (RUCC) provided through the US Department of Agriculture will be included. We will also test the model with the county of residence as a covariate; however, past analysis indicate that the RUCC is sufficient.

Income-Percent poverty will be included as it appears on the enrollment files.

[7] http://www.kingsfund.org.uk/sites/files/kf/field/field_document/PARR-combined-predictive-model-final-report-dec06.pdf

The difference in PMPM costs in Year 1 between those in the Wellness Plan and those not in Wellness Plan times the number of enrollee months in Wellness Plan provides an estimate of cost savings in Year 1. Savings will be adjusted downward by administrative costs. Application of the PMPM savings amount for Year 1 as adjusted by administrative costs to estimated enrollee months in Wellness Plan for Years 2 and 3 should provide future savings estimates. All cost savings will adjust for inflation.

ICER utilizing MPC and 4 comparison groups before and after implementation

RDD comparing Wellness Plan members and Medicaid State Plan adults at the threshold

DID for Wellness Plan members and three comparison groups before and after implementation

Variations from proposed method

For the interim report we made a number of changes to the proposed analyses.

1. We provide the results for ED costs and prescription costs in an effort to refine the cost model and understand one of the most important outcomes of coverage-ED cost. Leaving total costs for annual report in June 2016.
2. We did not include payment structure in the model.
3. We did not include members with basis of eligibility disability or those determined as medically exempt from WP or MPC.
4. We moved the RDD to the annual report in June 2016.

Results

The analyses included 228,015 individuals who were: 1) less than 65 years old as of January 1, 2014 and over 19 years old as of December 31, 2014; 2) eligible in FMAP, SSI, WP or MPC for at least one month during the study period (January 2012-December 2014); 3) not eligible for reduced coverage programs such as family planning; 4) not eligible for Medicare; and 5) not considered medically exempt from IHAWP. This resulted in 4,872,313 monthly data points. Tables 18 and 19 below show the characteristics of the FMAP population compared to the IHAWP population and the WP population compared to the MPC population. Those in IHAWP were more likely to be older, less likely to be female, and more likely to have a mental health problem. There are no significant differences between the WP and MPC populations.

We used a fixed effects regression modeling technique that included monthly information for each member for the months they were in the study. The maximum number of months of data available for a member in the analyses was 36, while the minimum was 1. As this model allows for data for members in the three groups for the period before and after implementation, each member may serve as his/her own control. This method of predicting cost changes is quite robust.

It is important to remember that the cost estimates are based on claims and encounter data. Claims data reflects the actual amount of money paid by the Medicaid program for health care services, however, encounters represent the amount of money paid by the Qualified Health Plans (QHPs: Coventry and CoOpportunity), not the amount paid by the Medicaid program. Premiums reflect the actual amount paid by the Medicaid program for those in the QHPs. Additional analyses are being undertaken to determine what the cost would have been to the state for the MPC population should they have been covered as though in the Medicaid program. This estimate will be compared to the state premium expenditure to estimate savings to the state.

Table 18. Descriptive characteristics of FMAP and IHAWP members, CY 2014

Variable	Definition	FMAP Mean	IHAWP Mean
Demographic/Socioeconomic			
Age	Age in years	32.89	38.72
Female	1 if Female	0.77	0.52
Black	1 if Black	0.10	0.08
Hispanic	1 if Hispanic	0.05	0.04
White	1 if White	0.65	0.63
Other	1 if Other Race	0.05	0.05
Above 100% of FPL	1 if Higher than 100% of FPL	0.01	0.22
Chronic Conditions			
Mental health problem	1 if has condition	0.38	0.25
Substance abuse	1 if has condition	0.08	0.07
Asthma	1 if has condition	0.12	0.07
Diabetes	1 if has condition	0.07	0.09
CAD	1 if has condition	0.07	0.08
Obesity	1 if has condition	0.18	0.13
Hypertension	1 if has condition	0.13	0.20
COPD	1 if has condition	0.02	0.04
Health Services			
Rx Fill	1 if 1 or more Rx Filled during month	0.40	0.32
Rx Spending	Total monthly Rx spending	18.66	18.11
ED Visit	1 if 1 or more ED Visits during month	0.08	0.05
ED Spending	Total Monthly ED spending	41.99	34.93

Table 19. Descriptive Characteristics of MCP and WP members, CY 2014

Variable	Definition	MCP Mean	WP Mean
Demographic/Socioeconomic			
Age	Age in years	38.56	38.77
Female	1 if Female	0.60	0.50
Black	1 if Black	0.06	0.08
Hispanic	1 if Hispanic	0.05	0.04
White	1 if White	0.65	0.63
Other	1 if Other Race	0.05	0.04
Above 100% of FPL	1 if Higher than 100% of FPL	0.82	0.04
Chronic Conditions			
Mental health problem	1 if has condition	0.23	0.26
Substance abuse	1 if has condition	0.05	0.08
Asthma	1 if has condition	0.07	0.08
Diabetes	1 if has condition	0.08	0.09
CAD	1 if has condition	0.07	0.08
Obesity	1 if has condition	0.13	0.14
Hypertension	1 if has condition	0.18	0.21
COPD	1 if has condition	0.03	0.04
Health Services			
Rx Fill	1 if 1 or more Rx Filled during month	0.30	0.32
Rx Spending	Total monthly Rx spending	23.09	16.54
ED Visit	1 if 1 or more ED Visits during month	0.04	0.06
ED Spending	Total Monthly ED spending	38.23	33.88

Table 20 provides the results from linear regression modeling for estimating ED use and cost and prescription medicine use and cost. In comparing WP per member per month (PMPM) cost and use to FMAP PMPM cost and use, the ED and prescription medicine PMPM cost and use are all significantly less. These comparisons are critical as both the cost and utilization are determined from claims and not encounters, providing a direct comparison. Regression results for MPC PMPM cost and use compared to FMAP PMPM cost and use indicates that MPC members had significantly higher ED and prescription medicine cost, while use was significantly lower. This may be the result of differences in fee schedules and formularies. We will investigate these differences further for the final report, including the completion of the RDD analyses.

Table 20: Regression Results Comparing IHAWP versus FMAP: 2014

Variable	Rx Fills (Likelihood)	ED Visit (Likelihood)	Rx Spending (Total/Mo)	ED Spending (Total/Mo)
WP	-0.064***	-0.009***	-2.58***	-1.72***
(compared to FMAP)	(0.0007)	(0.0004)	(0.3270)	(0.5538)
MPC	-0.085***	-0.025***	11.00***	11.10***
(compared to FMAP)	(0.0016)	(0.0009)	(0.6628)	(1.1224)

Standard errors in parentheses
*** Significant at p < .01
Models control for age, gender, race, income, chronic conditions

Incremental cost effectiveness

Incremental cost effectiveness measures will be provided in the June 2016 final report. The measures we anticipate using for the ICER follow with the formulas to calculate ratios for MPC versus Wellness Plan (WP) and MPC versus Medicaid State Plan (MSP). The formulas below group MSP and WP together to reduce redundancy, however the ratios will be provided separately for each comparison groups in the reports.

The ratios shown below do not reflect any risk adjustment, however, we will adjust the rates used in the calculations for differences in population risk strata. After comparing the populations on a variety of characteristics we will weigh the rates to normalize the population statistic. Depending on the numbers of members in each group and the accuracy of income data, we will analyze the rates for each population at the income threshold.

Measure 1A Adult access to preventive/ambulatory health services

$$\frac{\text{Total Cost}_{(MPC)} - \text{Total Cost}_{(MSP/WP)}}{\text{Adult Access}_{(MPC)} - \text{Adult Access}_{(MSP/WP)}}$$

$$\frac{\text{Primary Care Cost}_{(MPC)} - \text{Primary Care Cost}_{(MSP/WP)}}{\text{Adult Access}_{(MPC)} - \text{Adult Access}_{(MSP/WP)}}$$

$$\frac{\text{Inpatient Cost}_{(MPC)} - \text{Inpatient Cost}_{(MSP/WP)}}{\text{Adult Access}_{(MPC)} - \text{Adult Access}_{(MSP/WP)}}$$

This outcome measure will be utilized as the denominator for three ratios with numerators for total cost, primary care cost, and inpatient cost. We would anticipate that health care coverage through a program that encourages well visits would reduce total costs, despite a rise in primary care costs. This decrease is anticipated to derive from fewer hospitalizations through the early detection and timely monitoring and management of diseases and chronic conditions.

Measure 11A Flu vaccinations for adults ages 19-64

$$\frac{\text{Total Cost}_{(MPC)} - \text{Total Cost}_{(MSP/WP)}}{\text{Flu Vaccinations}_{(MPC)} - \text{Flu Vaccinations}_{(MSP/WP)}}$$

ED Cost (MPC)-ED Cost (MSP/WP)
Flu Vaccinations(MPC)-Flu Vaccinations(MSP/WP)

This outcome measure will be utilized as the denominator for two ratios with numerators for total cost and ED cost. We would anticipate that flu shots would reduce total costs and should also reduce the ED costs by reducing the use of emergency rooms for non-emergent problems related to flu and flu symptoms.

Measure 18A Mental health utilization

Total Cost (MPC)-Total Cost (MSP/WP)
Mental Health Utilization(MPC)-Mental Health Utilization(MSP/WP)

Primary Care Cost (MPC)-Primary Care Cost (MSP/WP)
Mental Health Utilization(MPC)-Mental Health Utilization(MSP/WP)

This outcome measure will be utilized as the denominator for two ratios with numerators for total cost and primary care cost. We would anticipate higher utilization of mental health services would result in better management of acute and chronic mental health conditions. Though this increased utilization will increase primary care costs, total costs should be reduced. We do not test the area where costs are reduced because we anticipate the effects to be across the system of care and not resident in one or two areas such as inpatient or ED cost.

Measure 20A Non-emergent ED use

Total Cost (MPC)-Total Cost (MSP/WP)
Non-emergent ED Use(MPC)-Non-Emergent ED Use(MSP/WP)

Primary Care Cost (MPC)-Primary Care Cost (MSP/WP)
Non-emergent ED Use(MPC)-Non-Emergent ED Use(MSP/WP)

ED Cost (MPC)-ED Cost (MSP/WP)
Non-emergent ED Use(MPC)-Non-Emergent ED Use(MSP/WP)

Specialist Cost (MPC)-Specialist Cost (MSP/WP)
Non-emergent ED Use(MPC)-Non-Emergent ED Use(MSP/WP)

This outcome measure will be utilized as the denominator for four ratios with numerators for total cost, primary care cost, ED cost and specialist cost. Access to comprehensive care should result in increased access to and cost of primary care and specialist care, however, this increased access to less costly care options should also result in lower ED costs and lower total costs.

Measure 24A EPSDT utilization

Total Cost (MPC)-Total Cost (MSP/WP)
EPSDT Utilization(MPC)-EPSDT Utilization(MSP/WP)

Primary Care Cost (MPC)-Primary Care Cost (MSP/WP)
EPSDT Utilization(MPC)-EPSDT Utilization(MSP/WP)

This outcome measure will be utilized as the denominator for two ratios with numerators for total cost and primary care cost. Access to EPSDT services should result in increased cost for primary care and lower total costs.

Measure 38 Admission rate for COPD, diabetes short-term complications, CHF and asthma

Total Cost (MPC)-Total Cost (MSP/WP)
Admission Rate(MPC)-Admission Rate(MSP/WP)

Inpatient Cost (MPC)-Inpatient Cost (MSP/WP)
Admission Rate(MPC)-Admission Rate(MSP/WP)

This outcome measure will be utilized as the denominator for two ratios with numerators for total cost and inpatient cost. Access to comprehensive care should result in reduced admissions for these manageable chronic conditions. We anticipate that the total costs and inpatient costs will be reduced.

Measure 44 Plan all-cause hospital readmissions

Total Cost (MPC)-Total Cost (MSP/WP)
Readmission Rate(MPC)-Readmission Rate(MSP/WP)

Inpatient Cost (MPC)-Inpatient Cost (MSP/WP)
Readmission Rate(MPC)-Readmission Rate(MSP/WP)

Primary Care Cost (MPC)-Primary Care Cost (MSP/WP)
Non-emergent ED Use(MPC)-Non-Emergent ED Use(MSP/WP)

Specialist Cost (MPC)-Specialist Cost (MSP/WP)
Non-emergent ED Use(MPC)-Non-Emergent ED Use(MSP/WP)

This outcome measure will be utilized as the denominator for four ratios with numerators for total cost, inpatient cost, primary care cost, and specialist cost. Access to comprehensive care should result in reduced readmissions as primary care providers and specialists manage conditions post-hospitalization. While primary care cost and specialist cost may increase, total cost and inpatient cost should decline.

Premiums and Cost Sharing

Question 5 *What are the effects of the premium incentive and copayment disincentive programs on Wellness Plan/Marketplace Choice enrollees?*

Hypothesis 5.1

The premium incentive for the Wellness Plan/Marketplace Choice enrollees will not impact the ability to receive health care.

Measure 56 Awareness of Premium

Measure 57 Ease of Obtaining Annual Physical Exam

Measure 58 Hardship of Monthly Premium

Definition

Several items in the survey were used to assess the effect of the premium as an incentive for patients to engage in healthy behaviors. Survey respondents were given the following information about this initiative as an introduction to the questions: "During your first year in this health plan, you are supposed to get a physical

exam. If you do not, you may have to pay a premium [$5 in the WP survey and $10 in the MPC survey] in your second year in the program (depending on your income)." The following measures were used to assess the healthy behaviors/premium initiative.

1. Awareness of the premium (Measure 56) = the percentage of respondents who reported being aware of the premiums.
2. Ease of obtaining the yearly physical exam (Measure 57) = the percentage of respondents who reported that it would be 'very easy' for them to obtain a yearly physical exam.
3. Hardship of a monthly premium [WP $5/month, MPC $10/month] (Measure 58) = the percentage who reported that they would be 'a great deal' worried if they had to pay a monthly premium.

Proposed analytic method

Measure 56 & 58:

Means tests between WP/MPC members and three comparison groups (MSP-IE, MSP-SSI, IowaCare).

Measure 57

RDD comparing WP/MPC members and MSP-IE members at the threshold and DID for WP/MPC members and three comparison groups before and after implementation.

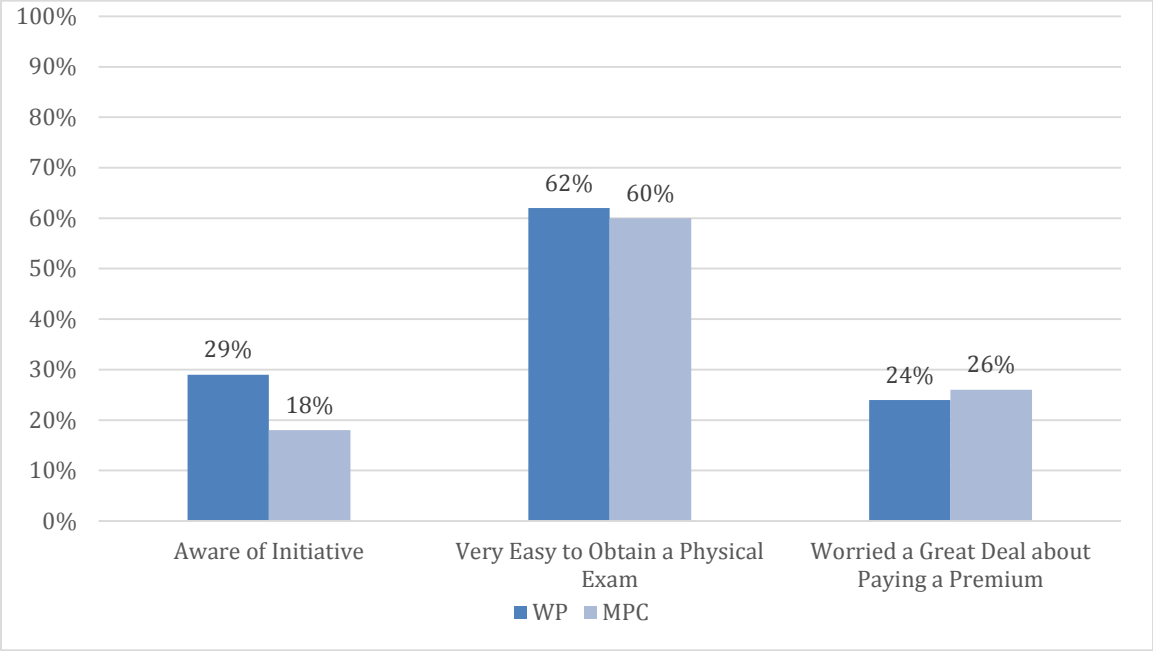
Variations from proposed method

Because premiums and incentives were not a part of the MSP-IE or MSP-SSI programs, we did not ask these questions in those member surveys. And, due to sample size constraints, we were not able to conduct RDD or DID analyses for Measure 57. Thus, for all three measures, we used means tests only to compare WP members to MPC members. Although premiums were part of the IowaCare program, the associated healthy behaviors were not so we did not include any consideration of IowaCare members in these analyses.

Results

Figure 24 provides the results of the analyses of Measures 56-58 for the WP and MPC members. Less than one-third of IHAWP members were aware of the physical exam requirement/premium payment of the healthy behavior initiative with significantly more WP members (29%) aware of this IHAWP plan policy compared to MPC members (18%). However, the majority of IHAWP members reported that it would be 'very easy' to obtain a physical exam (WP: 62%, MPC: 60%). And, around one-quarter reported that it would worry them 'a great deal' if they had to pay a premium to keep their health plan (WP: 24%, MPC: 26%).

Figure 24. IHAWP Healthy Behaviors/Premium Initiative



Hypothesis 5.2

The copayment for inappropriate emergency department (ED) use for the Wellness Plan/Marketplace Choice enrollees will not pose an access to care barrier.

Measure 59 Awareness of the copayment

Measure 60 Awareness of non-emergent condition

Measure 61 Copayment as a disincentive

Definition

As an introduction to the survey section on this topic, respondents were given the following information which was included in their IHAWP introductory packets: "As part of your new health plan coverage, you may have to pay $8.00 each time you use an emergency room for a non-emergency condition beginning next year (i.e. 2015). An emergency is considered to be any condition that could endanger your life or cause permanent disability if not treated immediately."

The following three measures were derived from three survey items and were used to assess the effect of the copayment as a disincentive to patients for using the emergency room for non-emergency situations.

1. Awareness of the copayment (Measure 59) = the percentage of respondents who were aware of the $8 copayment for inappropriate ER use.
2. Awareness of a non-emergent condition (Measure 60) = the percentage of respondents who reported that it was 'very easy' for them to determine when their health condition would be considered emergent.

3. Copayment as a disincentive (Measure 61) = the percentage who reported that an $8 per visit copayment would keep them from going to the emergency room for a health condition that could be treated in their doctor's office instead.

Proposed analytic method

Means tests between WP/MPC members and three comparison groups (MSP-IE, MSP-SSI, IowaCare).

Variations from proposed method

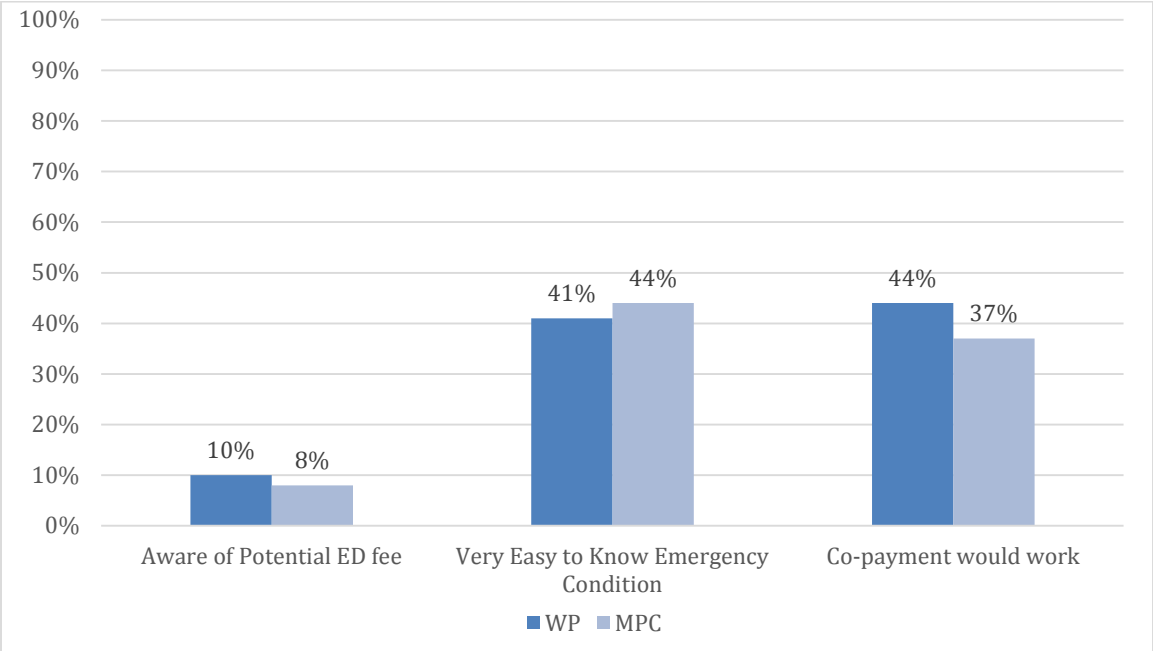
Because this initiative is unique to the IHAWP, these questions were only included in the WP and MPC member surveys. Thus, for measures 59-61, we used means tests to compare WP members to MPC members only.

Results

Figure 25 provides the results of the analyses of Measures 59-61 for the WP and MPC members. We learned, after the surveys were in field, that the State of Iowa did not implement the ED copayment policy. While the initial enrollment packets included this information, the policy never went into effect and members were never charged copayments for ED use. This fact should be kept in mind when considering the following survey results.

As expected, few members reported awareness of the ED copayment (WP: 10%, MPC: 8%) and less than half reported that it would be very easy to know when a health conditions would be considered an emergency (WP: 41%, MPC: 44%). As a way to try to gauge the potential effectiveness of such a policy, we asked respondents if they thought an added $8 fee would keep them from going to the ED when they had a health condition that they thought could be treated in a doctor's office instead; somewhat less than half of IHAWP respondents reported that it would. Significantly more WP members (44%) than MPC members (37%) reported that the fee would keep them from using the ED when they could go to a doctor's office.

Figure 25. Awareness and Effect of Copayment for ED use.



Hypothesis 5.3 (5.4 for Marketplace Choice)

In year two and beyond, the utilization of an annual exam will be higher than in the first year of the program.

Measure 62 Well adult visit (Measures 62A and 62B)

62A Percent of members with a well adult visit

Definition

Well adult visit included a preventive exam CPT code (99385-99387, 99395-99397, 99401-99404, 99411, 99412, 99420, 99429) or any visit code (99201-99205) AND a preventive visit diagnosis code (V70.0, V70.3, V70.5, V70.6, V70.8, V70.9). A 'Well visit' within IHAWP may include a dental visit, however, we have limited the Definition for the current measure to medical visits. The measure will be updated upon receipt and assimilation of the IHAWP dental data.

Proposed analytic method

Means tests between WP/MPC members and three comparison groups before and after implementation

Variations from proposed method

None

Results

Rates of well adult care are highest for WP members regardless of age, with rates for MPC members slightly to moderately lower. For members ages 20-44 the rate for MPC members is 5 percentage points below the rate for WP members, however; for those ages 45-64 years the rate for MPC members is 11 percentage points below WP members. The rate for well adult care for MPC members ages 20-44 is nearly the same as that for FMAP members in both CY 2013 and CY 2014, but the rate is higher than FMAP in both years for MPC members ages 45-64. The rate of adult well care for IowaCare members is significantly lower than any other groups. These results indicate that the IHAWP members are more likely to get preventive care than FMAP members.

Table 21. Adults' access to preventive health services by program and age, for WP and MPC members eligible for at least 11 months in CY 2014 and 11 months in CY 2013

Age		FMAP 2013	IowaCare 2013	FMAP 2014	WP 2014	MPC 2014
20-44 years	Number	6,606	3,305	7,310	8,087	2,112
	%	22%	12%	23%	29%	24%
45-64 years	Number	402	1,800	667	7,646	1,337
	%	14%	7%	18%	40%	29%
Total	Number	7,008	5,105	7,977	15,733	3,449
	%	21%	10%	22%	34%	26%

62B Whether member had well adult visit

Proposed analytic method

Models for RDD and DID are still under development.

Hypothesis 5.4 (5.5 for Marketplace Choice)

In year two and beyond, the utilization of smoking cessation services will be higher than in the first year of the program.

Measure 63 Medical assistance with smoking and tobacco use

One potential healthy behavior that could be incentivized (but currently is not) as part of the IHAWP is smoking cessation. With this in mind, we looked at member experiences at their providers' offices with receiving any advice or treatment for smoking cessation. Questions about smoking cessation were only asked of those who reported currently smoking cigarettes or using tobacco. Over one-third of members reported at least some tobacco use (MSP-IE: 41%, WP: 44%, MPC: 35%).

Definition

Member experiences with provider efforts to encourage smoking cessation were measured using the following items:

1. Advised by provider to quit smoking or using tobacco = the percentage who responded the provider usually or always advised them to quit smoking or using tobacco.
2. Provider recommended medication as treatment = the percentage who responded the provider usually or always recommended or discussed medication (such as nicotine gum, patch, nasal spray, inhaler, or prescription medicine) to assist with quitting smoking or using tobacco.
3. Provider recommended other (non-medication) treatments = the percentage who responded the provider usually or always recommended or discussed methods and strategies other than medication (such as using a telephone hotline, individual or group counseling, or a cessation program) to assist with quitting smoking or using tobacco.

Proposed analytic method

Means tests between WP/MPC members and three comparison groups (MSP-IE, MSP-SSI, IowaCare).

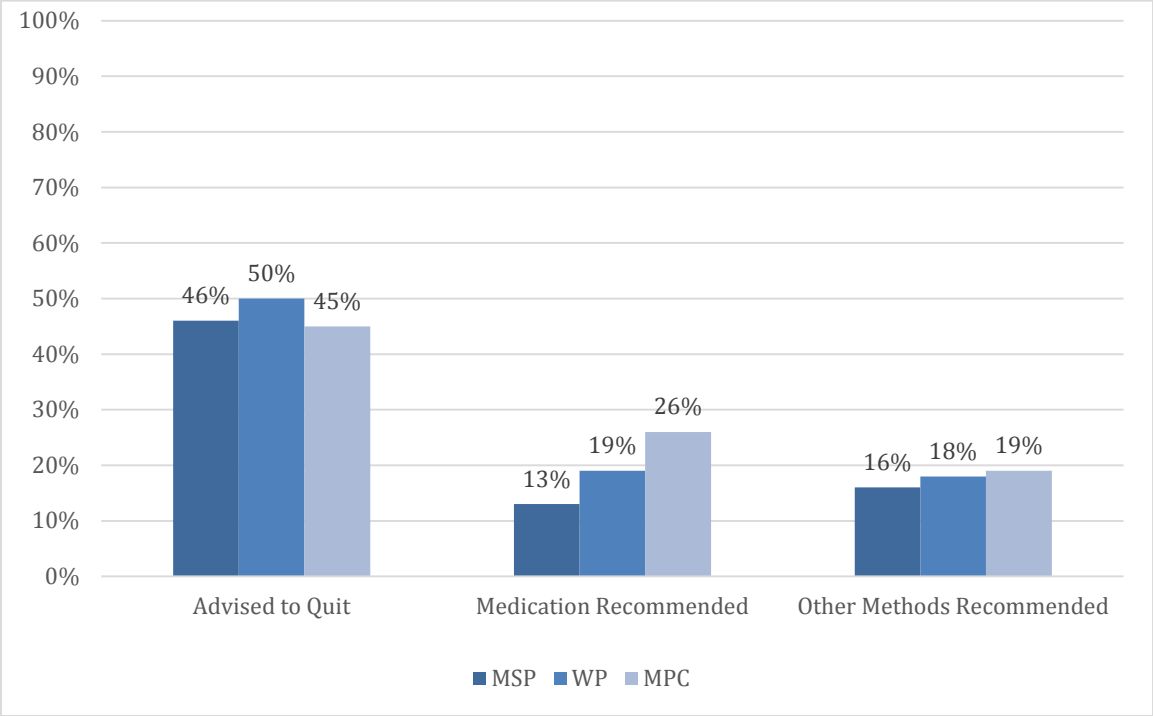
Variations from proposed method

We used means tests to compare 1) WP members to MSP-IE members and 2) MPC members to MSP-IE members. Statistical comparisons of WP and MPC members to MSP-SSI adult members were not conducted. IowaCare members pre-IHAWP implementation (2012) were not asked these questions.

Results

Figure 26 provides a summary of member experiences with provider efforts to encourage smoking cessation. Around half of members who were smokers were advised by their doctor or other health provider to quit smoking or using tobacco (MSP-IE: 46%, WP: 50%, MPC: 45%). Significantly more MPC members (26%) were recommended medication as a smoking cessation aid compared to MSP-IE members (13%). Less than one in five members were recommended non-medication methods to help them quit smoking or using tobacco (MSP-IE: 16%, WP: 18%, MPC: 19%).

Figure 26. Member Experiences with Smoking Cessation Efforts



Note: Percentages reported are for those who reported currently smoking cigarettes or using tobacco.

Provider Network Adequacy

Analyses of provider network adequacy were completed and contained in a June 2015 report entitled 'Evaluation of Provider Adequacy in the Iowa Health and Wellness Plan during the First Year', found at http://ppc.uiowa.edu/publications/evaluation-provider-adequacy-iowa-health-and-wellness-plan-during-first-year .

Question 6 *What is the adequacy of the provider network for Wellness Plan/Marketplace Choice enrollees as compared to those in the Iowa Medicaid State Plan?*

Hypothesis 6.1

Iowa Wellness Plan members will have the same access to an adequate provider network as members in the Medicaid State Plan.

Iowa Marketplace Choice members will have the same access to an adequate provider network as those in the Wellness Plan and Medicaid State Plan.

Measure 64 Geographic distance and time spent travelling to primary care provider

Average travel distance and average time to access primary care provider in local service delivery area

Definitions

Primary care providers

Primary care providers (PCPs) were defined as physicians, physician assistants or nurse practitioners specializing in General Practice, Family Practice, or Internal Medicine. Obstetrics & Gynecology providers

(OB/GYNs) were also included as PCPs for women. Internal Medicine specialists with a secondary specialty (e.g., cardiology or endocrinology) and clinics or providers with no specialty information were excluded. Providers working in Rural Health Clinics and Federally Qualified Health Centers were included in this evaluation. Supply counts of unique PCPs were identified by National Provider Identifier (NPI).

In addition to evaluating the supply of PCPs contracted with each program, we also evaluated the supply of PCPs who had submitted at least one claim to programs they were contracted with during CY 2014 ("treating providers"). To identify treating MSP providers, we examined claims submitted for care provided to the adult FMAP population, ages 19-64 years, since this population is the most comparable to the WP population.

The IME network of contracted PCPs was compared to the list of Coventry providers in order to evaluate panel overlap between programs; providers were matched by NPI.

Specialists

The supply of medical specialists and other licensed health care professionals was evaluated. Medical specialties of interest included cardiology, endocrinology, oncology/hematology, and pulmonology. Other providers of interest included chiropractors, optometrists, and podiatrists. These provider specialties and types were included because a previous survey of the IowaCare population conducted by the PPC identified the most commonly reported chronic medical conditions (e.g., hypertension, back or neck problems, diabetes, etc.), which are likely to require services from these providers. [8]

Mental Health Providers

Mental health providers included psychiatrists, psychologists, licensed social workers, and any other providers with a specialty of mental or behavioral health.

Hospitals

All hospitals in Iowa, including critical access hospitals, were included in this evaluation.

Safety Net Providers

All Federally Qualified Health Centers (FQHC) and Rural Health Centers (RHC) were included in this evaluation.

Proposed analytic method

Geocoding

Address data were cleaned prior to geocoding removing incomplete addresses and post office boxes from the dataset. Geocoding was carried out in multiple steps. Locations were initially geocoded using an address locator created in ESRI ArcMap using the "North American Detailed Streets" dataset maintained by ESRI. Addresses incorrectly located or not located after this process were located using a combination of ESRI geocoding API and Google Maps geocoding API. Only members and providers with successfully geocoded addresses were included in this evaluation.

Distance Calculations

Two distance outcomes were evaluated for the study populations: 1) distance to the nearest PCP among all members and 2) distance to the treating PCP among members with a qualifying visit to a PCP. The first

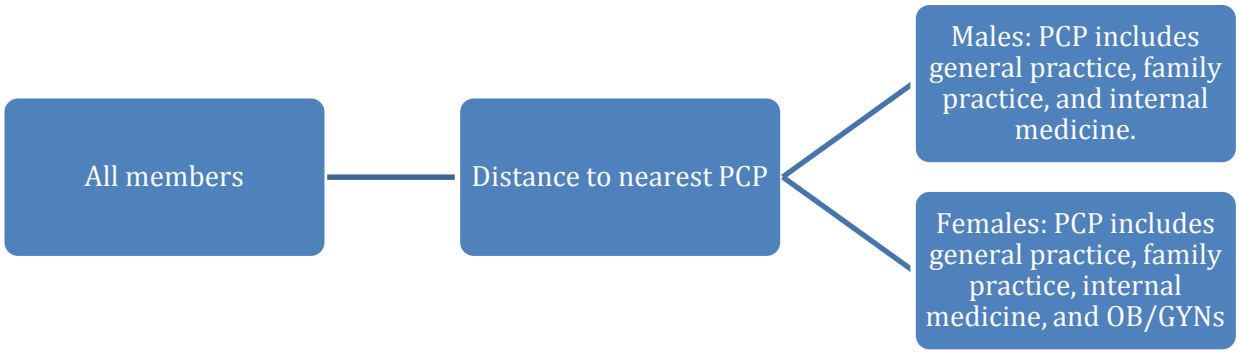
[8] Evaluation of the IowaCare Program: Information about the Medical Home Expansion. 2013. University of Iowa Public Policy Center. At: http://ir.uiowa.edu/ppc_health/81/. Accessed July 9, 2015.

outcome is one of potential access within the network; the second outcome reflects realized, or actual, access to primary care services.

Distance to nearest PCP

Distance to the nearest PCP was calculated for all members of the study population (Figure 27). To determine the nearest provider for each member, a network dataset was created using the North American Detailed Streets dataset maintained by ESRI. Non road pathways (i.e. bike trails) were omitted and a travel time for each section of roadway was calculated using the posted speed limit and section length. A small subset of roads lacking speed limit data were edited to have a 15 mph speed limit in order to avoid inflated travel times. The ESRI Network Analyst OD Cost Matrix tool was used to determine the closest provider to each enrollee and calculated the travel time and distance for each enrollee to the closest provider along the fastest travel route on the network (Manhattan distance).

Figure 27. Distance to the nearest PCP

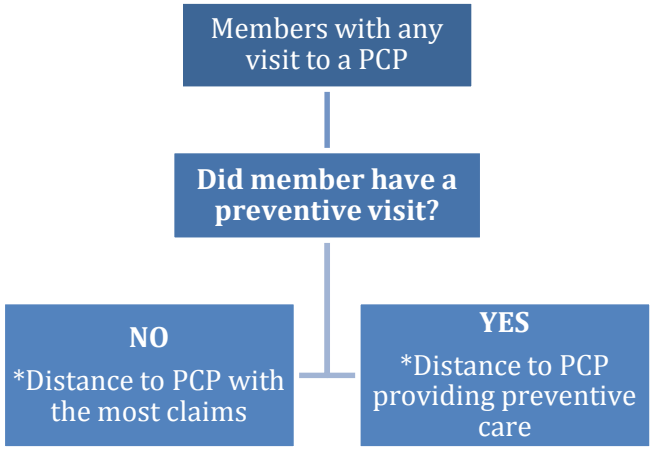


Distance to the treating PCP

Network distance and travel time to the treating provider was calculated for members with a qualifying ambulatory or preventive visit to a PCP, defined in accordance with the HEDIS 2014 measure of adults' access to preventive/ambulatory health services.[9] Members with a claim for preventive care, as defined by the V70.X diagnosis codes or 99385 or 99386 CPT codes, were mapped to the PCP who provided this care. For members with a PCP visit but no claims for preventive care, we calculated distance to the PCP who submitted the most claims on behalf of each member (Figure 28). In cases of ties, members were assigned to the closest PCP.

[9] HEDIS 2014 Summary Table of Measures, Product Lines and Changes. 2015. NCQA. At: http://www.ncqa.org/HEDISQualityMeasurement/HEDISMeasures/HEDIS2014.aspx. Accessed July 2, 2015.

Figure 28. Distance to the treating PCP



Variations from proposed method

None

Results

Wellness Plan and Medicaid State Plan members can access services from any provider contracted with Iowa Medicaid Enterprise (IME). Workforce supply for the MSP/WP network was compared with the Coventry (MPC) provider network.

Unique PCP and mental health providers were identified by NPI. Overall, 3,057 primary care providers (PCPs) in Iowa were contracted with MSP in 2014, and 2,710 PCPs were contracted with Coventry (Table 22). PCPs include family and general practitioners, internists, and OB/GYNs, along with nurse practitioners and physician assistants who provide primary care services.

There were 159 hospitals in Iowa that were in the MSP network and 116 contracted with Coventry. Information about mental health providers contracted with Coventry was not available at the time of this evaluation; however, there were 1,765 mental health providers in Iowa contracted with MSP during 2014.

Table 22. Contracted health care providers in Iowa by program (2014)

	MSP / WP	Coventry
Primary care providers	3,057	2,710
Mental health providers	1,765	**
Hospitals	159	116

**Not available at the time of this evaluation.

Primary Care Providers

In 2014, there were 3,057 PCPs contracted with MSP (Table 23). Active providers include all providers who submitted at least one claim for care provided to a member during 2014. Approximately 8% of these contracted PCPs (n=249) had submitted a claim for care provided to an FMAP member during 2014. Nine percent of MSP-contracted PCPs (n=274) had submitted a claim for care provided to a WP member.

In 2014, there were 2,445 PCPs contracted with Coventry. Approximately 37% of these (n=899) had submitted a claim for care provided to a Marketplace Choice member.

Note that it is not possible to directly compare the supply of specific primary care provider types between MSP/WP and Coventry. Medicaid categorizes nurse practitioners and physician assistants by their specialty, while Coventry does not indicate specialty for these providers.

Approximately 48% (n=1,456) of PCPs contracted with MSP/WP were also contracted with Coventry.

Table 23. Primary care providers in Iowa by program (2014)

	MSP/WP			Coventry	
	Contracted	Submitted ≥ 1 claim MSP	Submitted ≥ 1 claim WP	Contracted	Submitted ≥ 1 claim
Family Practice	1,740	149	166	1,594	713
General Practice	444	37	39	22	9
Internal Medicine	536	4	12	321	83
OB/GYN	332	55	52	3	0
Nurse Practitioners**	NA	NA	NA	12	3
Physician Assistants**	NA	NA	NA	249	82
Other	5	5	5	13	2
Total	**3,057**	**249**	**274**	**2,445**	**899**

** Medicaid includes a specialty for nurse practitioners and physician assistants, so these providers are counted by their respective specialties. Coventry does not designate a specialty for nurse practitioners or physician assistants; they have all been counted in this report as PCPs.

Medical specialists and other health care professionals

In general, Coventry had more contracted providers in select medical specialties than the MSP/WP network, while the MSP/WP network had more contracted chiropractors, optometrists, and podiatrists (Table 24). Note that even though there were 213 cardiologists contracted with MSP/WP and Coventry, these two groups are not identical.

Table 24. Selected contracted medical specialists and other health care professionals in Iowa by program (2014)

	MSP/WP	Coventry
Medical specialists		
Cardiologists*	213	213
Endocrinologists	15	27
Oncologists/Hematologists	38	106
Pulmonologists	47	68
Other health care professionals		
Chiropractors	1,920	448
Optometrists	829	254
Podiatrists	310	131

*Includes surgeons

Mental Health Providers

There were 1,765 unique mental health providers contracted with MSP/WP, excluding providers in the Iowa Plan for Behavioral Health network (Table 25).

For this evaluation we did not include providers in the Iowa Plan for Behavioral Health network. Most MSP members are automatically enrolled in the Iowa Plan, a managed care program for the delivery of mental health and substance abuse treatment; WP members are eligible for a limited set of services covered by the Iowa Plan.

At the time of this evaluation, we did not have access to a list of mental health providers contracted with Coventry.

Table 25. Contracted mental health providers in Iowa by program (2014)

	MSP/WP	Coventry**
Psychiatrists	367	
Psychologists	315	
Licensed social workers	443	
Nurse practitioners	152	
Other credentialed providers	488	
Total	**1,765**	

**Not available at the time of this evaluation.

For this evaluation, we did not include PCPs as mental health providers, even though they represent an important source of mental health care. Future evaluations will assess the role of PCPs in providing mental health services to members of these programs.

Measure 65 Analysis of rules and procedures for determining the adequacy of the provider network

Subjective assessment of the rules and policies surrounding network adequacy

Definition

Original measure

Proposed analytic method

Process measures

Variations from proposed method

This measure has been removed due to the removal of CoOpportunity as a QHP and the difficulty in assessing the plan documents.

Measure 66 Provider willingness to accept new patients

Percent of primary care providers indicating they will take new patients who are members of the plan

Definition

Original items

Proposed analytic method

RDD comparing WP/MPC members and Medicaid State Plan adults at the threshold

DID for WP/MPC members and three comparison groups before and after implementation

Variations from Proposed Analyses

The provider survey did not occur in the second year due to the impending change to all managed care in Iowa Medicaid.

Measure 67 Provider satisfaction with plan key components such as fee schedules and documentation

Qualitative assessment of provider opinions on aspects of the plan

Definition

Original items

Proposed analytic method

RDD comparing WP/MPC members and Medicaid State Plan adults at the threshold

DID for WP/MPC members and three comparison groups before and after implementation

Variations from proposed method

The provider survey did not occur in the second year due to the impending change to all managed care in Iowa Medicaid.

Measure 68 Comparison of network overlap between plans

Assessment of provider inclusion and overlap by plan and county

Definition

Original measure

Proposed analytic method

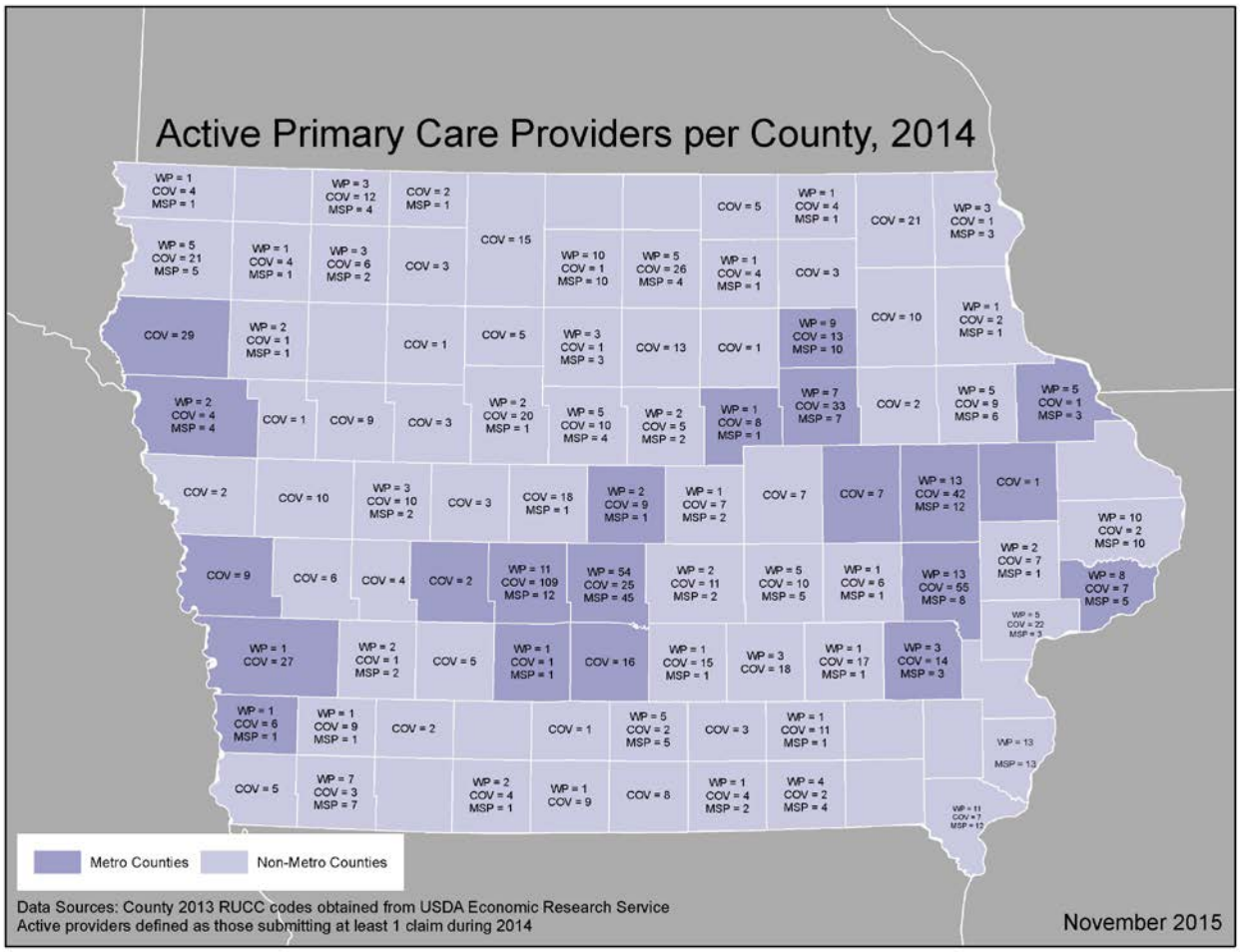
Process measures for WP/MPC and Medicaid State Plan members

Variations from proposed method

Due to differences in how providers were identified by Coventry and the MSP, we were unable to compare overlap at the individual provider level. Number of primary care providers – defined as those who submitted at least 1 claim during 2014 – were mapped by county. Due to low numbers, medical specialists and other health care professionals are tabulated at the program level.

Results

Figure 29. Active Primary Care Providers in Iowa



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Medical specialists		
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Oncologists/Hematologists	38	106
Pulmonologists	47	68
Other health care professionals		
Chiropractors	1,920	448
Optometrists	829	254
Podiatrists	310	131

*Includes surgeons

Measure 69 (MARKETPLACE CHOICE only) Provider network inclusion of safety net providers.

Proportion of safety net providers in the covered counties included in the provider network

Definition

Original

Proposed analytic method

Process measures for MPC members

Variations from proposed method

Due to its termination, CoOportunity Health network was not analyzed. Safety net network was displayed with maps.

Results

There are 58 FQHCs (Figure 30) and 308 RHCs (Figure 31) in Iowa. Additional FQHCs in Illinois (n=8), Nebraska (n=8), and South Dakota (n=8) are also contracted with Iowa Medicaid.

Figure 30. Locations of FQHCs in Iowa

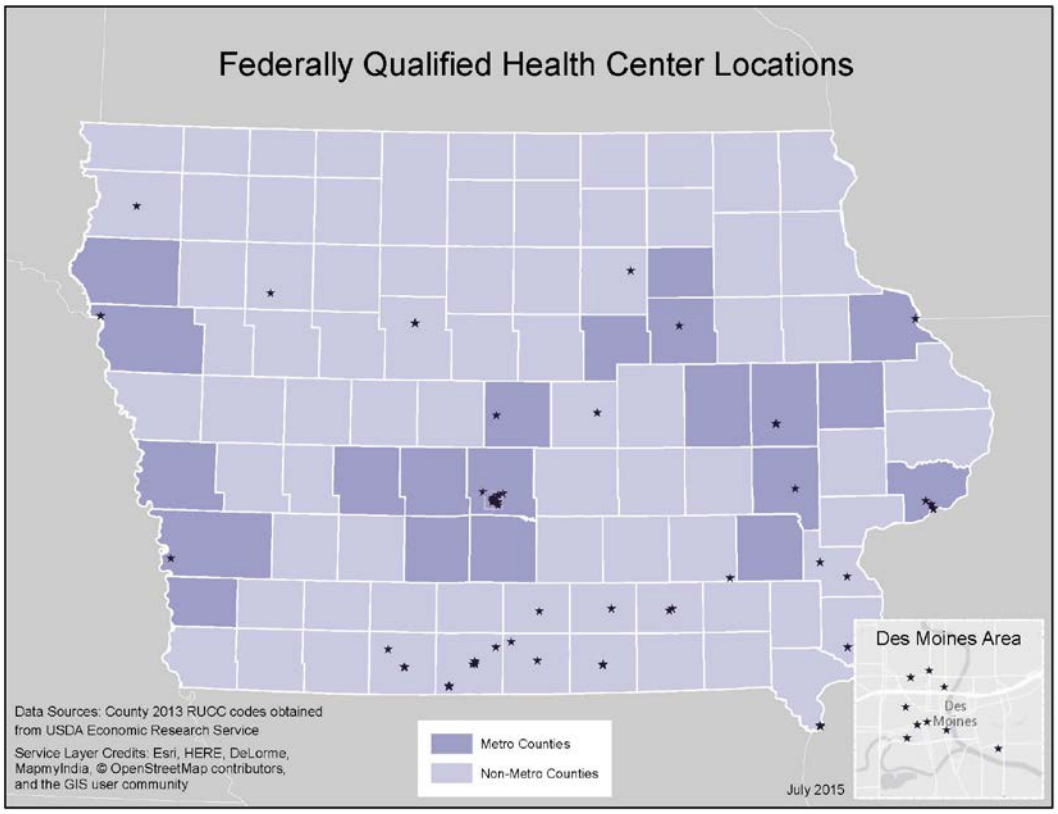
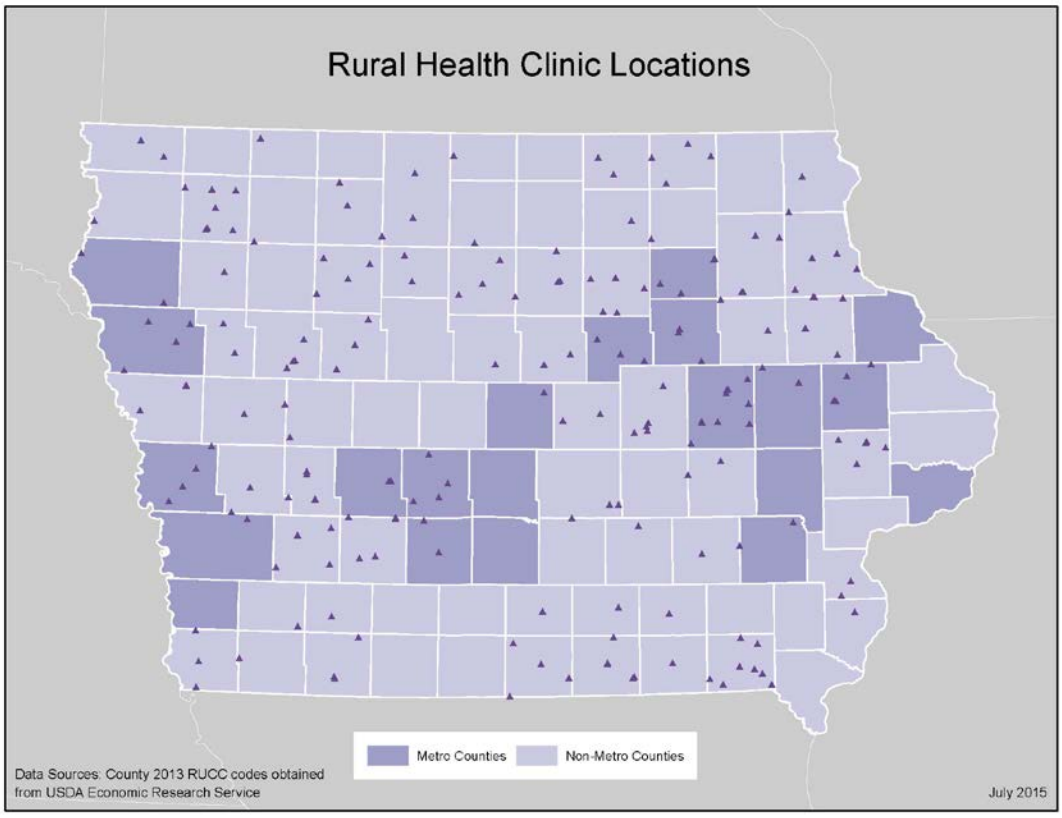


Figure 31. Locations of Rural Health Clinics in Iowa



Areas of emphasis

To clarify the areas of the evaluation designed to determine the effects of specific program aspects, particularly those that may be unique to Iowa or private exchanges, we have provided an additional section pulling together the research questions and hypotheses that relate to each area of emphasis.

Non-Emergency Medical Transportation (NEMT)

Per agreement with CMS through a waiver, the state of Iowa has not been required to assure NEMT to and from providers for the IHAWP population. This waiver authority was to sunset after one year, to allow for reevaluation of this authority after the state and CMS considered its impact on access to care.

Upon further discussions with the IME and CMS, additional analytic methods were proposed to evaluate NEMT. The additional research questions and methods follow.

Question 1 Is the presence or absence of the NEMT benefit associated with unmet need for transportation to health care visits?

To model the factors related to unmet NEMT need, we used data from the Fall 2014 survey.

We modelled unmet NEMT need using logistic regression.

$$Unmet\ NEMT\ need_{it} = \alpha_i + \beta_1 Group_{it} + \beta_2 Group_{it} + \boldsymbol{x}'\beta_4 + u_{it}$$

Unmet NEMT need-Survey respondents provided a yes or no answer to the following question: In the last 6 months, was there any time when you needed transportation to or from a health care visit but could not get it for any reason.

Group-represents a series of indicator variables that provide study group comparisons. The variables will capture whether the individual was in the program of interest. We will use dummy indicators for whether a member was in the Marketplace Choice (0,1), Wellness Plan (0,1) or enrolled in Medicaid State Plan (MSP) due to low income (0,0). This approach allows us to use MSP (the group with an NEMT benefit) as the comparison group.

X represents a matrix of covariates including:

Age-self-reported. Dichotomous: 18-40, 40 plus. Reference group in the models is Age 18-40.

Gender-self-reported.

Race/Ethnicity-self-reported. Each are dichotomous indicators. Race: White (Reference group = non-white), Black or African American (Reference group = non-Black), Hispanic (Reference group = non-Hispanic), Other includes Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, and other (Reference group = White, Black, or Hispanic).

Education- self-reported. Dichotomous: High School or Less (Reference group), More than High School.

Income-Percent poverty will be included as it appears on the enrollment files. Tertiles based on plan type: MSP-IE & WP: 0, 1%-50%, 51% +, MPC: 0 – 109%, 110% - 124%, 125% +. Reference group is the lowest tertile.

Number of chronic conditions-Self-reported. Physical Health Conditions categorical: 0, 1-2, 3 or more. Mental Health Conditions dichotomous: 0, 1 or more. Dual Physical and Mental Health Issues (yes/no): reported at least 1 physical and 1 mental health condition. Reference group for these variables is no conditions.

Health Status-3 self-reported measures were included: 1) Physical Health: Fair/Poor vs. Good/Very Good/Excellent (Reference group); 2) Mental Health: Fair/Poor vs. Good/Very Good/Excellent (Reference group); 3) Functional Limitations (yes/no): Reported any of four possible functional limitations which included physical or medical conditions that a) seriously interfered with a member's ability to work, attend school, or manage day-to-day activities, b) seriously interfered with a member's independence, participation in the community, or quality of life, c) required the member to have help with routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes, or d) required the member to have help with personal care needs, such as eating, dressing, or getting around the house.

Rural/urban-Rural-urban continuum codes (RUCC) provided through the US Department of Agriculture. Rural residence is the reference group.

Distance to nearest primary care provider-Each respondent address and the addresses of primary care providers in the plan network were geocoded. The distance from the member's home to the nearest active primary care provider (at least 1 claim in the past 6 months) will be calculated. Distance to PCP in tertiles: 0 – 0.65 miles, 0.66 – 1.8 miles, 1.9 miles or more. Reference group is the lowest tertile.

The following two covariates were proposed in the evaluation plan but were not included in the analyses.

Needing assistance-Survey responses will be dichotomized as follows: needing assistance usually/always or needing assistance never/sometimes for the following question: In the last 6 months, how often did you need assistance from other sources (such as friends, family, public transportation, etc.) to get to your health care visit.

This variable was too highly correlated with the outcome variable (unmet NEMT need) to be included as a covariate.

IowaCare Health Home regions-During the IowaCare program there were eight health home regions. These regions were service areas built around six federally qualified health centers and academic medical centers.

The majority (> 60%) of respondents to the fall 2014 survey were never in the IowaCare program. Thus, this variable was deemed to not be relevant to the model and was not included.

Question 2 Does unmet NEMT need affect utilization of well care, acute care or the emergency department?

To assess whether unmet NEMT need was associated with utilization of health care services, we used data from the fall 2014 survey linked to administrative data.

We modelled health care utilization (well visit, acute care visit, Ed use) using logistic regression.

$$Utilization_{it} = \alpha_i + \beta_1 GroupWP_i + \beta_2 GroupMPC_i + \beta_3 Unmet\ Need + \beta_4 GroupWP_i * UnmetNeed + \beta_5 GroupMPC_i * UnmetNeed + \beta_6 \boldsymbol{x}' + u_i$$

Utilization-Claims data was used to determine whether or not the survey respondent utilized care in the 6 months prior to the survey. There were three unique dependent variables: had a well visit, had an acute care visit, and used the emergency department.

Well visit = visit including a preventive exam CPT code (99385-99387, 99395-99397, 99401-99404, 99411, 99412, 99420, 99429) or any visit code (99201-99205) AND a preventive visit diagnosis code (V70.0, V70.3, V70.5, V70.6, V70.8, V70.9).

Acute care visit = Defined as any MD or ARNP visit that is NON-behavioral/emotional, NON-maternal, and NON-well visit. Had to occur in an office setting-office, outpatient clinic, rural health clinic, or FQHC according to the place of service. Had to be CPT codes between 99210 and 99215.

Outpatient ED visit = An ED visit that did not result in a hospitalization. Defined as revenue code on an institutional claim of 450-459. If they were in the ER for more than one day we used the first day as the date of service.

Unmet NEMT need (β_3)- Survey respondents provided a yes or no answer to the following question: In the last 6 months, was there any time when you needed transportation to or from a health care visit but could not get it for any reason.

Group (β_1, β_2)-represents a series of indicator variables that provide study group comparisons. The variables will capture whether the individual was in the program of interest. We will use dummy indicators for whether a member was in the Wellness Plan (β_1 above) or Marketplace Choice (β_2 above). MSP (the group with an NEMT benefit) is the comparison/reference group.

Group*Unmet Need Interaction (β_4, β_5) – represents interaction terms that jointly model the effect of the absence of NEMT benefit (GroupWP, GroupMPC) with reported unmet need for transportation to health care visits (Unmet NEMT need).

X' represents a matrix of covariates including:

Age- self-reported. Dichotomous: 18-40 (Reference group), 40 plus.

Gender-Self-reported.

Race/Ethnicity- self-reported. Each are dichotomous indicators. Race: White (Reference group = non-white), Black or African American (Reference group = non-Black), Hispanic (Reference group = non-Hispanic), Other includes Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, and other (Reference group = White, Black, or Hispanic).

Education- self-reported. Dichotomous: High School or Less (Reference group), More than High School.

Income-Percent poverty will be included as it appears on the enrollment files. Tertiles based on plan type: MSP-IE & WP: 0, 1%-50%, 51% +, MPC: 0 – 109%, 110% - 124%, 125% +. The lowest tertile is the reference group.

Number of chronic conditions-Self-reported. Physical Health Conditions categorical: 0, 1-2, 3 or more. Mental Health Conditions dichotomous: 0, 1 or more. Dual Physical and Mental Health Issues (yes/no): reported at least 1 physical and 1 mental health condition. Reference group for these variables is no conditions.

Health Status-3 self-reported measures were included: 1) Physical Health: Fair/Poor vs. Good/Very Good/Excellent (Reference group); 2) Mental Health: Fair/Poor vs. Good/Very Good/Excellent (Reference group); 3) Functional Limitations (yes/no): Reported any of four possible functional limitations which included physical or medical conditions that a) seriously interfered with a member's ability to work, attend school, or manage day-to-day activities, b) seriously interfered with a member's independence, participation in the community, or quality of life, c) required the member to have help with routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes, or d) required the member to have help with personal care needs, such as eating, dressing, or getting around the house.

Rural/urban-Rural-urban continuum codes (RUCC) provided through the US Department of Agriculture will be included. Rural residence is the reference group.

Distance to nearest primary care provider-Each respondent address and the addresses of primary care providers in the plan network were geocoded. The distance from the member's home to the nearest active primary care provider (at least 1 claim in the past 6 months) was calculated. Distance to PCP in tertiles: 0 – 0.65 miles, 0.66 – 1.8 miles, 1.9 miles or more. The lowest tertile is the reference group.

Distance to nearest hospital ED-Each respondent address and the addresses of all EDs in Iowa were geocoded. The distance from the member's home to the nearest ED was calculated. Distance to ED in tertiles: 0 – 1.9 miles, 2.0 – 6.0 miles, > 6.0 miles. The lowest tertile is the reference group.

The following covariate was proposed in the evaluation plan but was not included in the analyses because there was little variation in this variable. The reason was that to be eligible for the survey sample, IHAWP and MSP-IE members had to have been in their plan for the six months prior to the survey. So, no one had less than six months of enrollment. Also, since it was the first year of the IHAWP (2014) and the survey was in October of 2014, the maximum number of months of enrollment for IHAWP could only be 9 months while for MSP-IE members, it could be 12.

Months of enrollment-Number of months enrolled in the IHAWP or MSP-IE during the 12 months prior to the survey.

The comparison of the variables related to NEMT by groups (MSP-IE, WP, MPC) are provided in Question 1, hypothesis 1.5. The results of the additional analysis (Question 1 and Question 2) of the merged 2014 survey data to associated administrative claims is below.

Results

Table 27 provides, by group, the descriptive statistics for all of the dependent (outcome) and independent (covariate) variables used in the models for Question 1 and Question 2.

Table 27. Descriptive Characteristics of the 2014 NEMT Survey Groups

Characteristic	WP N=1101	MSP N=670	MPC N=691
Outcome (dependent) variables			
Unmet Need for Health Care Transportation	15.1%	12.4%	5.1%
Had at least 1 Well Visit	28.2% Range: 0-2	14.5% Range: 0-2	15.4% Range: 0-2
Had at least 1 Acute Care Visit	65.9% Range: 0-30	58.0% Range: 0-16	30.0% Range: 0-9
Had at least 1 ED Visit	23.4% Range: 0-10	27.1% Range: 0-9	16.3% Range: 0-7
Independent variables			
Age > 40	66.2%	21.2%	59.4%
Male	42.2%	16.9%	28.2%
Race: White	84.2%	83.5%	88.9%
Race: Black	8.2%	9.7%	5.6%
Race: Hispanic	3.9%	7.7%	3.8%
Race: Other	5.0%	5.2%	3.0%
Education: Greater than High School	44.9%	48.3%	50.8%
Income: FPL – lowest category	51.22% FPL: 0	40.0% FPL: 0	32.8% FPL: 0 - < 110
Income: FPL – middle category	12.5% FPL: > 0 – 50	35.6% FPL: > 0 – 50	34.1% FPL: 110 - < 125
Income: FPL – highest category	36.3% FPL: > 50	24.4% FPL: > 50	33.2% FPL: 125+
# Physical Health Conditions: 0	14.6%	24.9%	18.8%
# Physical Health Conditions: 1-2	35.1%	42.4%	42.0%
# Physical Health Conditions: 3 or more	50.4%	32.8%	39.2%
Self-Reported Physical Health: Fair or Poor	28.2%	18.0%	20.5%
Any Self-Reported Functional Limitations	37.8%	26.5%	17.7%
Self-Reported Mental Health: Fair or Poor	23.7%	21.8%	14.0%
# Mental or Emotional Health Conditions: > 0	45.6%	50.4%	37.8%
Dual Physical and Mental Health Problems	42.8%	44.7%	35.3%
Residence in an Urban/Metro Area	51.1%	49.3%	53.8%
Distance to PCP: 0 - < 0.66 miles	28.1%	28.7%	49.3%
Distance to PCP: 0.66 - < 1.9 miles	38.2%	35.4%	24.1%
Distance to PCP: 1.9 or more miles	33.6%	35.9%	26.6%
Distance to Hospital: 0 – < 2.0 miles	33.5%	35.0%	36.5%
Distance to Hospital: 2.0 - < 6.1 miles	34.3%	31.5%	31.7%
Distance to Hospital: 6.1 or more miles	32.2%	33.5%	31.8%

Table 28 provides the results for question 1 (Is the presence or absence of the NEMT benefit associated with unmet need for transportation to health care visits?).

Table 28. Factors Associated with Unmet NEMT Need

Factors	Odds Ratio (95% CI)
WP group (Ref: MSP-IE group)	1.34 (0.95, 1.89)
MPC group (Ref: MSP-IE group)	0.48 (0.26, 0.86) *
Age > 40 (Ref: Age ≤ 40)	0.98 (0.73, 1.32)
Male (Ref: Female)	0.81 (0.60, 1.08)
White (Ref: Non-white)	0.88 (0.51, 1.50)
Black (Ref: Non-black)	2.05 (1.12, 3.76) *
Hispanic (Ref: Non-Hispanic)	1.99 (1.12, 3.53) *
Other Race (Ref: White, Black, Hispanic)	1.45 (0.81, 2.61)
Education > High School (Ref: High School or Less)	0.85 (0.65, 1.11)
Income: FPL middle (Ref: FPL lowest)	1.36 (0.97, 1.90)
Income: FPL highest (Ref: FPL lowest)	0.62 (0.44, 0.86) †
Has any functional limitation (Ref: None)	2.62 (1.91, 3.59) †
Fair/Poor Self-Reported Physical Health (Ref: Good/Very Good/Excellent)	1.29 (0.93, 1.81)
Fair/Poor Self-Reported Mental Health (Ref: Good/Very Good/Excellent)	1.35 (0.97, 1.87)
# Physical Health Conditions: 1-2 (Ref: 0)	1.56 (0.77, 3.14)
# Physical Health Conditions: 3+ (Ref: 0)	1.84 (0.90, 3.80)
Any Mental Health Condition (Ref: 0)	1.89 (0.68, 5.26)
Had both a physical and mental health condition	1.02 (0.36, 2.94)
Urban residence (Ref: Non-Urban residence)	1.18 (0.90, 1.55)
Distance to PCP: 0.66 – 1.8 miles (Ref: 0 – 0.65 miles)	0.79 (0.58, 1.08)
Distance to PCP: 1.9 miles or more (Ref: 0 – 0.65 miles)	0.91 (0.65, 1.26)

* Statistically significant at p < .05; † Statistically significant at p< .01

With regard to the main effects of interest, there was no association between being in the WP (compared to MSP-IE) and reporting an unmet need for NEMT. Those in an MPC plan were less likely than MSP-IE members to report an unmet need for NEMT. Other factors were also related to reporting an unmet need for NEMT. Blacks (compared to non-Blacks) and Hispanics (compared to non-Hispanics) were around 2 times as likely to report an unmet NEMT need. Members who reported having any functional limitations were 2.6 times as likely to experience unmet NEMT need. Finally, those with the highest income levels as measured by FPL (compared to the lowest levels) were less likely to report having ever had an unmet need for NEMT.

Table 29 provides the results for question 2 (Does unmet NEMT need affect utilization of well care, acute care or the emergency department?). Three sets of models were fit to answer this question – one for each of the utilization types (well care visit, acute care visit, and emergency department visit). The first set of models included interaction terms for group (WP, MPC) by unmet NEMT need. There were no significant interaction terms in any of the three models. Therefore, the interaction terms were removed and the models were fit with only the main effects and covariates. The results in Table 29 include the models with only the main effects of group (WP, MPC) and unmet NEMT need (no interaction terms) plus the other covariates as described above.

Table 29. Factors associated with having a well visit, acute care visit, or ED visit

Factors	Well Visit Odds Ratio (95% CI)	Acute Care Visit Odds Ratio (95% CI)	ED Visit Odds Ratio (95% CI)
Unmet NEMT need	0.69 (0.50, 0.96) *	0.82 (0.61, 1.09)	1.90 (1.44, 2.50) †
WP group (Ref: MSP-IE group)	2.48 (1.86, 3.30) †	1.30 (1.02, 1.64) *	0.90 (0.69, 1.17)
MPC group (Ref: MSP-IE group)	0.98 (0.66, 1.46)	0.29 (0.21, 0.40) †	0.76 (0.52, 1.10)
Age > 40 (Ref: Age ≤ 40)	1.22 (0.97, 1.53)	1.04 (0.85, 1.27)	0.60 (0.47, 0.75) †
Male (Ref: Female)	0.61 (0.49, 0.77) †	0.53 (0.43, 0.65) †	0.81 (0.64, 1.02)
White (Ref: Non-white)	0.80 (0.50, 1.29)	0.95 (0.62, 1.46)	1.15 (0.72, 1.86)
Black (Ref: Non-black)	0.63 (0.36, 1.10)	0.91 (0.56, 1.49)	2.58 (1.53, 4.35) †
Hispanic (Ref: Non-Hispanic)	1.67 (1.05, 2.66) *	1.36 (0.87, 2.14)	1.11 (0.68, 1.82)
Other Race (Ref: White, Black, Hispanic)	0.68 (0.38, 1.20)	0.56 (0.35, 0.91) *	0.58 (0.33, 1.02)
Education > High School	1.17 (0.95, 1.43)	0.93 (0.77, 1.11)	0.71 (0.58, 0.88) †
Income: FPL middle (Ref: FPL lowest)	0.97 (0.73, 1.29)	0.90 (0.71, 1.14)	1.04 (0.79, 1.36)
Income: FPL highest (Ref: FPL lowest)	0.95 (0.76, 1.20)	0.88 (0.72, 1.09)	0.87 (0.68, 1.11)
Has any functional limitation (Ref: None)	1.03 (0.79, 1.35)	2.03 (1.59, 2.60) †	1.83 (1.41, 2.36) †
Fair/Poor Self-Reported Physical Health	1.09 (0.81, 1.47)	1.38 (1.04, 1.82) *	1.15 (0.87, 1.52)
Fair/Poor Self-Reported Mental Health	0.81 (0.59, 1.09)	0.97 (0.73, 1.28)	1.40 (1.06, 1.84) *
# Physical Health Conditions: 1-2 (Ref: 0)	1.04 (0.74, 1.47)	1.74 (1.29, 2.34) †	1.36 (0.91, 2.05)
# Physical Health Conditions: 3+ (Ref: 0)	0.99 (0.68, 1.44)	3.04 (2.18, 4.23) †	1.74 (1.13, 2.68) *
Any Mental Health Condition (Ref: 0)	1.25 (0.69, 2.25)	0.75 (0.44, 1.26)	0.96 (0.48, 1.92)
Had both a physical and mental health condition	0.78 (0.42, 1.45)	1.12 (0.64, 1.96)	1.29 (0.62, 2.68)
Urban residence	1.31 (1.05, 1.62) *	0.90 (0.74, 1.09)	0.81 (0.65, 1.01)
Distance to PCP: 0.66 – 1.8 miles (Ref: 0 – 0.65 miles)	0.93 (0.72, 1.18)	1.14 (0.91, 1.44)	1.19 (0.92, 1.54)
Distance to PCP: 1.9 miles or more (Ref: 0 – 0.65 miles)	0.84 (0.61, 1.16)	1.36 (1.02, 1.81) *	1.54 (1.10, 2.15) *
Distance to ED: 2.0 – 6.0 miles (Ref: < 2.0 miles)	1.24 (0.96, 1.60)	0.74 (0.58, 0.94) *	1.22 (0.94, 1.60)
Distance to ED: 6.1 miles or more (Ref: < 2.0 miles)	0.89 (0.64, 1.24)	0.73 (0.54, 0.98) *	0.80 (0.57, 1.13)

* Statistically significant at p < .05; † Statistically significant at p< .01

Well visits

Those with an unmet need for NEMT were less likely to have had a well visit than those with no unmet need and yet, independently, those in the WP were 2.5 times more likely than those in the MSP-IE group to have had a wellness visit. There was no interaction effect between being in the WP and having an unmet NEMT need. A few other demographic factors were related to having a well visit. Hispanics were 1.7 times more likely to have a well visit than non-Hispanics and those living in an urban area were 1.3 times as likely compared to those in rural areas. Finally, males were less likely to have a well visit compared to females. Interestingly, health status indicators were not related to well visits.

Acute care visits

Having an unmet NEMT need was not related to having had an acute care visit. Yet, WP members were more likely and MPC members were less likely (when compared to MSP-IE members) to have had an acute care visit. Again, there were no interaction effects between plan and unmet NEMT need. Members with functional limitations, self-reported fair or poor physical health, any physical health conditions, and those who lived

farthest from their PCP were more likely to have had an acute care visit while males, those of a race other than white, black, or Hispanic, and those who lived farthest from their nearest ED/hospital were less likely to have had an acute care visit.

ED visits

Members who had an unmet NEMT need were 1.9 times as likely to have visited an ED. There was no statistical association between having had an ED visit and being in either the WP or MPC plan (compared to MSP-IE). Blacks and those with functional limitations, poor/fair self-reported mental health, and 3 or more physical conditions were more likely to have visited an ED. Also, those who lived farthest from their nearest PCP were more likely to have utilized the ED. Members over 40 years old and who had more than a high school education were less likely to have had an ED visit.

Behavioral/emotional health services

Results on the impact of less mental health coverage is embedded in Research Question 1, hypothesis 1.1, measure 2; hypothesis 1.3, measures 17-19; Research question 3, hypothesis 3.3, and measure 49.

Churning

Results on the impact of churning is embedded in Research Question 2, hypothesis 2.1, measures 25-27 and hypothesis 2.2, measures 28-30.

Copayment for non-emergency use of the emergency department

The impact of these incentives is included in Research Question 1, hypothesis 1.4 and Research Question 5, hypothesis 5.3.

Healthy Behavior incentives

In this report, results related to the impact of incentives is embedded in Research Question 5, Hypothesis 5.1, and Measures 56-58. For the Marketplace Choice evaluation, the effect of disenrollment was not investigated because no members were disenrolled or were requested to pay premiums in 2014.

Medically Exempt members

Results for this area of emphasis will be included in the 2017 report.

Limitations

As with all evaluations, there are limitations to the interpretation of these. Survey data, for example, are based on self-reported information and the recall of the member. Response bias is also a potential threat to validity. Non-response bias tests were conducted to determine if the characteristics of respondents differed significantly from non-respondents. Administrative data are collected for billing and tracking purposes and do not always reflect the service provided accurately.

There may be a propensity for members who have the most to gain from coverage to have accessed services earlier through the IowaCare program than those with less to gain. This has the potential to bias all the estimates of program effects on quality measures and costs. Essentially, those who are sicker may use services earlier and the reduction in costs accounted for these enrollees by the Wellness Plan may be greater than for later enrollees. Risk adjustments attempt to correct for this potential bias. Some methods, such as RDD, may result in estimates that are more valid but only pertain to a segment of the population (e.g., the beneficiaries around the income threshold between programs).

Though we proposed specific analytical tools within this evaluation document and even went so far as to link analytical strategies to hypotheses, we have had to change the methods and approaches for some measures due to small numbers, difficulty identifying the relevant populations, or unanticipated complexity in the measure design. We are still investigating the use of propensity scoring, instrumental variables analysis, and survival analysis as possible techniques. We have encountered difficulty obtaining some of the data required for the analyses such as the pharmaceutical data for the QHPs. In addition, we have found it much more difficult and laborious to integrate the new data formats and fields with our existing data repository hindering our ability to complete some of the administrative data based outcomes for the interim report. We continue efforts to clean and assimilate data more quickly.

Appendix A

Benefits Comparison: Medicaid State Plan & Iowa Health and Wellness Plan

Plan Benefits	Medicaid State Plan	Iowa Health and Wellness Plan	
		Iowa Wellness Plan	Iowa Marketplace Choice Plan
		NOTE: Medically Exempt individuals will be enrolled in the Medicaid State Plan benefit with the option to Opt-out	***NOTE: Medically Exempt individuals will be enrolled in the Medicaid State Plan benefit with the option to Opt-out***
Ambulatory Patient Services • **Physician Services** • **Primary Care**	Covered	Covered	Covered
Chiropractic	Covered	Covered	Covered
Podiatry	Covered	Covered Routine foot care is generally not covered, however it may be covered as part of a member's overall treatment related to certain health care conditions	Covered Routine foot care is generally not covered, however it may be covered as part of a member's overall treatment related to certain health care conditions
Emergency Services • **Emergency Room** • **Ambulance**	Covered	Covered	Covered
Hospitalization	Covered	Covered	Covered
Rehabilitative and Habilitative Services • **Physical Therapy** • **Occupational Therapy** • **Speech Therapy**	Covered, no limits	Covered • 60 visits covered annually for each therapy	Covered
Lab Services • **X-Rays** • **Lab Tests**	Covered	Covered	Covered
Prescription Drugs	Covered	Covered	Covered pursuant to Qualified Health Plan benefit; must meet minimum essential benefits
Home Health	Covered	Covered	Covered
Hospice	Covered Respite: Unlimited but may only be used in 5 day increments	Covered Respite: 15 inpatient and 15 day outpatient lifetime limit	Covered Respite: 15 inpatient and 15 day outpatient lifetime limit

Benefits Comparison: Medicaid State Plan & Iowa Health and Wellness Plan

Plan Benefits	Medicaid State Plan	Iowa Health and Wellness Plan	
		Iowa Wellness Plan	Iowa Marketplace Choice Plan
Skilled Nursing Facility	Covered, no limits	Limited to 120 days annually	Limited to 120 days annually
Dental	Covered	Covered – See Proposal for Accountable Dental Care Plan	Covered – See Proposal for Accountable Dental Care Plan
Other Benefits			
• **Bariatric Surgery**	Covered	Not Covered	Covered
• **Temporomandibular Joint (TMJ)**	Covered	Not Covered	Covered
• **Eyeglasses**	Covered	Not Covered	Not Covered
• **Hearing Aids**	Covered	Not Covered	Not Covered
• **Non-Emergency Medical Transportation**	Covered	Not Covered	Not Covered
• **Intermediate Care Facility (Nursing Facility)**	Covered if Level of Care is met	Not Covered	Not Covered
• **Intermediate Care Facility for the Intellectually Disabled**	Covered if Level of Care is met	Not Covered	Not Covered
Delivery System			
Managed Care	MediPASS/HMO - Children and Parents only Fee-for-Service – All other populations	Primary Care Case Management (MediPASS/HMO)	Per QHP plan contracts if applicable
Primary Care Medical Home/Health Home	Chronic Condition Health Home tiered per member per month for persons with chronic conditions	Through payment incentives "$4-$10-$4" plan	Per QHP plan contracts if applicable
Accountable Care Organizations	N/A	Through payment incentives "$4-$10-$4-$4" plan	Per QHP plan contracts if applicable
Provider Network	Medicaid contracted providers; Medicaid reimbursement methods and policies	Medicaid contracted providers; Medicaid reimbursement methods and policies	QHP contracted provider network; QHP reimbursement methods and contracts

Benefits Comparison: Medicaid State Plan & Iowa Health and Wellness Plan

Mental Health, Substance Abuse Treatment, and Support Services			
Plan Benefits	**Medicaid State Plan**	**Iowa Health and Wellness Plan**	
		Iowa Wellness Plan	**Iowa Marketplace Choice Plan**
		NOTE: Medically Exempt individuals will be enrolled in the Medicaid State Plan benefit with the option to Opt-out	***NOTE: Medically Exempt individuals will be enrolled in the Medicaid State Plan benefit with the option to Opt-out***
Mental Health and Substance Use Disorder Services	Covered - Inpatient/Outpatient services including services provided by: • Hospitals • Psychiatrist • Psychologist • Social Workers • Family and Marital Therapists • Licensed Mental Health Counselors	Covered - Inpatient/Outpatient services provided by: • Hospitals • Psychiatrist • Psychologist • Social Workers • Family and Marital Therapists • Licensed Mental Health Counselors ***Mental Health Parity Required**	Covered - Inpatient/Outpatient services provided by: • Hospitals • Psychiatrist • Psychologist • Social Workers • Family and Marital Therapists • Licensed Mental Health Counselors ***Mental Health Parity Required**
Other Mental Health Services	• Behavioral Health Intervention services • Assertive Community Treatment (ACT)	Not Covered	Not Covered
Additional B3 services covered because of savings from the Managed Care Iowa Plan Waiver	• Intensive psychiatric rehab • Community Support Services • Peer Support • Residential Substance Abuse Treatment	Not Covered	Not Covered
Habilitation - 1915i Home and Community Based Services	• An individualized, comprehensive service plan • Home-based habilitation • Day habilitation • Prevocational habilitation • Supported Employment	Covered after a Medically Frail/Exempt determination; person is moved into regular Medicaid	Covered after a Medically Frail/Exempt determination; person is moved into regular Medicaid

Benefits Comparison: Medicaid State Plan & Iowa Health and Wellness Plan

Mental Health, Substance Abuse Treatment, and Support Services			
Plan Benefits	**Medicaid State Plan**	**Iowa Health and Wellness Plan**	
		Iowa Wellness Plan	**Iowa Marketplace Choice Plan**
Delivery System			
Managed Care	Mental Health and Substance Abuse services covered through the Iowa Plan, 1915(b) managed care plan (Magellan) – all populations except Medically Needy Iowa Plan benefits are the benefits described above	Mental Health and Substance Abuse services covered through the Iowa Plan Benefits provided through the Iowa Plan are the benefits described above, unless the person is Medically Exempt, in which case benefits are equal to the Medicaid State Plan	Per QHP plan contracts if applicable Benefits are provided by the QHP per QHP plan contracts. Benefits are as described above, unless the person is Medically Exempt, in which case the person will receive Medicaid State Plan benefits through Medicaid and the Iowa Plan
Integrated Health Home	Eligibility based on specified mental health diagnosis IHH provides health home services, including peer support, care coordination, etc. through IHH providers	Only covered under the Medicaid State Plan after a Medically Frail/Exempt determination; person is moved into regular Medicaid	Only covered under the Medicaid State Plan after a Medically Frail/Exempt determination; person is moved into regular Medicaid
Provider Network	Magellan contracted provider network; Medicaid and Magellan reimbursement rates and policies	Magellan contracted provider network; Medicaid and Magellan reimbursement rates and policies	QHP contracted provider network; QHP reimbursement methods and contracts

March 2016

Dental Wellness Plan Evaluation Interim Report

Susan McKernan
*Assistant Professor, Preventive & Community Dentistry***

Peter Damiano
*Director**
*Professor, Preventive & Community Dentistry***

Julie Reynolds
*Visiting Assistant Professor, Preventive & Community Dentistry***

Elizabeth Momany
*Assistant Director, Health Policy Research Program Associate Research Scientist**

Raymond Kuthy
*Professor, Preventive & Community Dentistry***

Mark Pooley
*Research Associate**

Aparna Ingleshwar
*Graduate Research Assistant***

Brooke McInroy
Survey Research Manager*

**University of Iowa Public Policy Center*
***University of Iowa College of Dentistry and Dental Clinics*

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Background

The Iowa Health and Wellness Plan (IHAWP) was implemented on January 1, 2014 and expands coverage for low income Iowans through two new programs: The Iowa Wellness Plan and Iowa Marketplace Choice. IHAWP provides coverage for adults with incomes from 0 to 133% of the Federal Poverty Level (FPL) who are not otherwise eligible for Medicaid or Medicare. IHAWP replaced the IowaCare program with plans that offer more covered services and broader provider networks, along with expanded coverage to other low income adults in Iowa not previously enrolled in IowaCare. IowaCare did not cover dental services, except for emergency extractions at two locations in the state.

The Wellness Plan covers adults aged 19 to 64 with incomes up to and including 100% of the FPL ($11,490 for individuals; $15,510 for a family of two). The Wellness Plan is administered by the Iowa Medicaid Enterprise (IME) and members have the option to enroll in a managed care or a fee-for-service program.

The Marketplace Choice Plan covers adults aged 19 to 64 with incomes from 101 to 133% of the FPL ($11,491-$15,282 for individuals; $15,511-$20,628 for a family of two). Members can choose from certain commercial health plans available on the health insurance marketplace, with Medicaid paying the member's premiums.

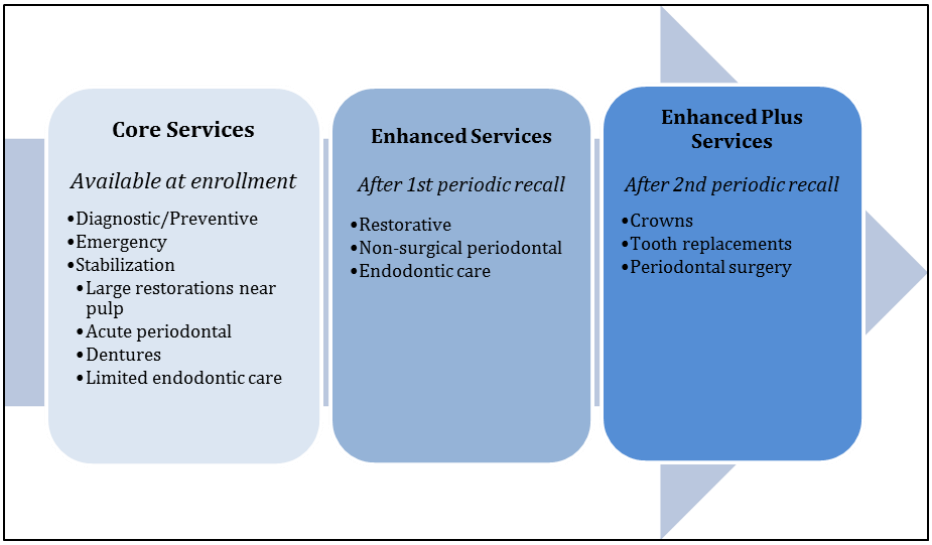
All members of the IHAWP receive dental benefits through the Iowa Dental Wellness Plan.

The Iowa Dental Wellness Plan (DWP) was implemented on May 1, 2014. This plan is operated by Delta Dental of Iowa (DDIA) as a fee-for-service plan, with IME making capitated payments to DDIA for administration of the plan.

Earned benefit structure

The DWP offers an earned benefit structure in which enrollees are rewarded with additional covered services when they demonstrate preventive care-seeking behaviors by returning for regular periodic recall exams. All enrollees are eligible for a "**Core**" set of benefits upon enrollment including emergency and stabilization services (Figure 1). If they return for a periodic recall exam within 6-12 months of the initial exam, members earn the ability to receive "**Enhanced**" services. After receiving a 2nd recall exam within 6-12 months of the 1st recall, members earn the ability to receive "**Enhanced Plus**" services.

Figure 1. Earned benefits in the Iowa Dental Wellness Plan



Core benefits, or tier 1 services, include diagnostic and preventive services, emergency services, and stabilization services. Stabilization services are those that "prevent a condition from deteriorating in an imminent timeframe to a more serious situation".[1]

Enhanced benefits, tier 2, include routine restorative services, root canals, non-emergent tooth extractions, and basic periodontal services.

Enhanced plus benefits, tier 3, include crowns, bridges, and periodontal surgery.

The DWP expects to establish a larger provider network than for adults with regular Medicaid dental coverage by offering higher reimbursement (approximately 50% higher) and reduced administrative burdens as compared with the traditional Medicaid program. Dentists are incentivized to conduct clinical risk assessments of their DWP patients.

Member incentives

Positive incentive-Members who return for a recall exam (regular dental check-up) every 6-12 months will earn access to additional services at no out-of-pocket cost to the enrollee.

Negative incentive-Members who do not return for a recall exam every 6-12 months do not have access to the Enhanced or Enhanced Plus services.

Provider incentives

The State has developed a Provider Incentive Plan ("Bonus Pool") for dental providers. The Incentive Plan rewards general dentists based on the number of comprehensive and periodic exams performed for DWP members.

Additional incentives to participate include generally higher reimbursement for fee-for-service care than they would normally receive for adult Iowa Medicaid members (about 50% higher) and reimbursement for conducting clinical risk assessments, a service not routinely covered by Medicaid or traditional dental insurance plans.

Study populations

This evaluation includes 3 major comparison groups, in addition to the DWP population, where comparisons are appropriate.

Medicaid State Plan - Family Medical Assistance Program (FMAP)

The FMAP comparison group includes adult parents of children eligible for Medicaid in families with incomes from 0-77% FPL. As they earn more, they are able to increase the percent FPL allowed for eligibility to encourage employment. Dental benefits for FMAP members are provided by the Iowa Medicaid State Plan, a fee-for-service program administered by Iowa Medicaid Enterprise. Other adults eligible through disability determinations or as a pregnant mother will not be included in this comparison group.

[1] Delta Dental. Dental Wellness Plan: Frequently Asked Questions & Answers. Available at: https://www.deltadentalia.com/assets/docs/dwp/dentist_faq_dwp.pdf. Last accessed August 25, 2014.

Delta Dental of Iowa (DDIA)

DDIA is a not-for-profit organization that offers individual or employer-based dental insurance. More than 30% of Iowa dentists participate in the Delta Dental PPO network and 90% participate in the Premier network. Services received within the PPO network are significantly discounted; PPO dentists accept Delta Dental's payment as payment in full. The Premier network is the largest oral health insurance network in Iowa and also offers negotiated discounts to Delta members; however, out-of-pocket expenses and deductibles are higher if services are performed by a Premier dentist instead of a PPO dentist. Premier dentists accept Delta Dental's payment as payment in full. When members receive services from a non-participating dentist, rates are reimbursed at the Premier payment level and members may be billed for the remaining balance of billed charges.

Individuals may purchase benefits through the Preferred Choice or the Preventive Plan. Preferred Choice offers more comprehensive coverage and waives deductibles for preventive care; it provides coverage for major dental services such as root canals, crowns, and dentures. The Preventive Plan focuses on preventive services, with savings on basic services such as fillings.

Delta Dental coverage can be purchased through Iowa's Health Insurance marketplace, where financial assistance through the government's Advanced Premium Tax Credits is available for eligible individuals. Delta Dental has approximately 835,000 subscriber members.

IowaCare

IowaCare was a limited provider/limited benefit program that operated from 2005-2013. The dental provider network included one public hospital in Des Moines and the only dental school in the state. The plan served adults not otherwise eligible for Medicaid, with incomes up to 200% FPL. IowaCare enrollees were distributed in three places following the elimination of this program: 1) those with incomes 101-133% FPL were enrolled into Marketplace Choice, 2) those with incomes 0-100% FPL were enrolled in Wellness Plan, and 3) those whose income could not be verified or had incomes from 134-200% FPL were not automatically enrolled in any program but might be eligible for purchasing subsidized insurance through the online Health Insurance Marketplace. The Iowa Health and Wellness Plan replaced the IowaCare program, providing the opportunity to utilize previously collected and assimilated administrative and survey data (pre-implementation data) for enrollees from this program.

Limitations to comparisons

The IowaCare program provided only limited dental benefits (primarily extractions) at two sites in the state. IowaCare enrollees may have also obtained dental care from other providers, paying for this care on their own. This limits our ability to use the IowaCare data in measures that require data on dental utilization. In addition, it may be difficult to account for the wide variety of coverage options within Delta Dental of Iowa plans.

Methods

Data access

The Public Policy Center (PPC) has worked closely with the State of Iowa to ensure that the assurances needed to obtain data are firmly in place. The PPC has a data sharing Memorandum of Understanding (MOU) with the State of Iowa to utilize MSP and DWP claims, enrollment, encounter, and provider data for approved research activities. Additionally, the PPC has a data-sharing MOU with Delta Dental of Iowa to utilize administrative data for its commercial dental plans for approved research activities.

Data sources

Administrative data

The DWP evaluation provides a unique opportunity to optimize several sources of data to assess the effects of the innovative benefit structure and provider incentives. The PPC is home to a Medicaid Data Repository encompassing over 100 million claims, encounter and eligibility records for all Iowa Medicaid enrollees for the period January 2000 through the present. Data are assimilated into the repository on a monthly basis. Ninety-five percent of medical and pharmaceutical claims are completely adjudicated within three months of the first date of service, while the 'run out' for institutional claims is six months.

The PPC also maintains a DDIA repository of claims and eligibility records for commercial enrollees for the period 2005 through the present. Ninety-seven percent of DDIA commercial dental claims are completely adjudicated within three months of the first date of service. In addition, the PPC maintains a repository of DWP claims and eligibility records as required to conduct these evaluations, extending from May 1, 2014 through the present.

The PPC staff has extensive experience with these files as well as extensive experience with CMS adult core measures and Healthcare Effectiveness Data and Information Set (HEDIS) measures. In addition, the database allows members to be followed for long periods of time over both consecutive enrollment months and periods before and after gaps in coverage. When the enrollment database was started in 1965, Iowa made a commitment to retain member identification numbers for at least three years and to never reuse the same Medicaid ID number. This allows long-term linkage of member information including enrollment, cost, and utilization throughout changes in plans.

The evaluation strategy outlined here is designed to maximize the use of outcome measures derived through administrative data manipulation using nationally recognized protocols, including protocols from Consumer Assessment of Healthcare Providers and Systems (CAHPS) surveys, from the National Quality Forum (NQF), the National Committee on Quality Assurance (NCQA) HEDIS, and the Dental Quality Alliance (DQA).

Data Availability for Comparisons

Dental Wellness Plan members

1) DWP members who shifted from IowaCare contribute pre and post implementation data.
2) DWP members who shifted from another Medicaid program due to increased income contribute pre and post implementation data (these members would be ineligible for a Medicaid program in the absence of the IHAWP).
3) DWP members who were uninsured and not previously enrolled in a Medicaid program contribute post implementation data only.

FMAP and DDIA

1) Members who had been enrolled in FMAP or a DDIA plan before the implementation of the DWP may contribute pre and post implementation data.
2) Members who were not enrolled in FMAP or a DDIA plan before the DWP was started, contribute post implementation data only.

IowaCare

1) Members who had been enrolled in IowaCare before the implementation of the DWP may contribute pre and post implementation data.

Limitations to the study populations

The IowaCare program did not provide prescription drug coverage; however, members may have obtained medications from IowaCare providers. Anecdotal evidence indicates the IowaCare enrollees with University of Iowa Hospitals and Clinics as their medical home were provided medications as part of their care, while those with a FQHC were not able to obtain medications on a regular basis through the medical home. This limits our ability to use the IowaCare data in measures that require data on medication use. In addition, members who are or become dually enrolled in Medicaid and Medicare are removed from the analysis, since accurate claims data are not available.

Enrollment

The measures and analytics included in this report utilize a variety of study population subsets. For example, outcomes measures (i.e., Annual dental visit - Measures 1A and 1B) are routinely calculated using only those members who were enrolled for at least 11 months of the study year, however, there are also measures that require enrollment of at least 11 months in the study year and the year before (People with diabetes: dental exam - Measures 12A), require only one month of enrollment in the study year (Use of ED for non-traumatic dental related treatment - Measures 9A) or require that all members be newly enrolled during the first year of the program (Annual dental visit - Measures 1A and 1B).

Table 1 provides comparisons by age and sex for the three primary study populations for members enrolled in the program for at least 1 month during the year prior to implementation of DWP and the first year of DWP. Comparisons of race are not provided for DDIA members as this information was not available in the enrollment files. DWP began 4 months after the beginning of the IHAWP; therefore, the pre-implementation year individuals enrolled in DWP includes those who were in IowaCare and those in IHAWP.

IowaCare and DWP members are more similar to DDIA members in age and gender, being older and more likely to be male than those in FMAP. However, IowaCare and DWP members are similar to FMAP members regarding race.

Table 1. Member demographics by year and program

	May 1, 2013 – April 30, 2014			May 1, 2014 – April 30, 2015		
	Pre-implementation			**Year 1**		
Characteristic	**IowaCare/ IHAWP**	**FMAP**	**DDIA**	**DWP**	**FMAP**	**DDIA**
Age (in years)						
19-20	3%	5%	7%	10%	7%	5%
21-24	11%	16%	10%	12%	16%	10%
25-34	26%	44%	22%	27%	43%	23%
35-44	20%	26%	20%	19%	25%	20%
45-54	23%	8%	22%	19%	8%	22%
55-64	17%	1%	20%	12%	1%	21%
Sex						
Female	53%	75%	53%	53%	76%	53%
Male	48%	26%	47%	47%	24%	47%
Unidentified	0%	0%	0.2%	0%	0%	1%
Race						
White	63%	64%		62%	65%	
Black	11%	11%		7%	8%	
Native American	1%	2%		1%	1%	
Asian	2%	2%		2%	2%	
Hispanic	4%	5%		3%	4%	
Pacific Islander	1%	1%		0%	1%	
Multi-racial Hispanic	1%	2%		1%	1%	
Multi-racial Other	1%	1%		1%	1%	
Unknown	16%	14%		22%	18%	

Primary data collection

Member Surveys

This report includes data from surveys of DWP and FMAP members, fielded post-implementation of the DWP in spring 2015. The FMAP comparison group includes members ages 19-64 who were newly enrolled in the Medicaid program. This comparison group excludes individuals who were categorically eligible due to a pregnancy or a disability determination.

Detailed survey methodology, including the survey instruments, responses to each item in the surveys, and summarized results can be found at the following website:
http://ppc.uiowa.edu/publications/evaluation-dental-wellness-plan-member-experiences-first-year

General methods used to develop, field, and compile the data from these surveys follows.

Survey Instruments

The CAHPS® Dental Plan Survey served as the foundation of the survey instrument; additional items were included to capture the following domains:[2]

- Prior dental insurance coverage (Original items)
- Need and unmet need for dental care prior to and after joining the plan (Modified from previous Medicaid[3] and IowaCare[4] surveys conducted by the University of Iowa Public Policy Center [UIPPC])
- Services covered by plan and out of pocket costs (Original items)
- Emergency room dental care (Original items, items modified from previous IHAWP surveys conducted by UIPPC[5])
- Access to emergency dental care in a dental office (Items modified from previous IHAWP surveys conducted by UIPPC)
- Specialty dental care (Original item)
- Experience changing dentists (Original item, item modified from previous IHAWP surveys conducted by UIPPC)
- Regular dentist practice setting (Original item)
- Knowledge about DWP (Original items)
- Transportation to dental visits (Items modified from previous IHAWP surveys conducted by UIPPC)
- Change in oral health status since joining plan (Items modified from a 1997 dental plan survey from the RAND corporation[6])
- Oral health effect on daily activities and self-esteem (Items from the NHANES 2013-14 Oral Health Questionnaire[7])
- Number of teeth extracted (Modified item from the Behavioral Risk Factor Surveillance System [BRFSS][8])

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[2] Agency for Healthcare Research and Quality (AHRQ). CAHPS® Dental Plan Survey, Adult Questionnaire. February 2009. Available at https://cahps.ahrq.gov/surveys-guidance/dental/instructions/index.html

[3] Damiano PC, Willard JC, Momany ET, Park K. Evaluation of the Iowa Medicaid Managed Care Program: The Consumer Perspective. University of Iowa Public Policy Center. October 2011. Available at http://ir.uiowa.edu/cgi/viewcontent.cgi?article=1075&context=ppc_health

[4] Damiano PC, Momany ET, Willard JC, et al.. First evaluation of the IowaCare program. University of Iowa Public Policy Center. December 2008. Available at http://ir.uiowa.edu/cgi/viewcontent.cgi?article=1017&context=ppc_health

[5] Bentler SE, Damiano PC, Momany ET, McInroy B, Robinson E, Pooley MJ. Evaluation of the Iowa Health and Wellness Plan: Member Experiences in the First Year. University of Iowa Public Policy Center. 2015. Available at http://ppc.uiowa.edu/sites/default/files/ihawp_survey_interactive.pdf

[6] Coulter I, Marcus M, Freed J, et al. Self-reported behavior and attitudes of enrollees in capitated and fee-for-service dental benefit plans. RAND Health, prepared for the American Dental Association. 2001.

[7] Centers for Disease Control and Prevention. National Health and Nutrition Examination Survey: Oral Health Questionnaire. January 2013. Available at http://www.cdc.gov/nchs/data/nhanes/nhanes_13_14/OHQ_H.pdf

Survey Field Methods

A mixed-mode mail survey was administered 10 months after implementation of DWP (i.e., Spring 2015) to a random sample new DWP members and new adult Medicaid members who were income eligible through FMAP. Members were eligible if they had been enrolled continuously for 7-10 months with up to one month of ineligibility. Individuals were not included in the sampling frame if they were eligible for Medicaid due to pregnancy or a disability determination, or lived outside of Iowa. Only one person per household could be selected. Populations eligible for the sample included 125,122 DWP members and 4991 Medicaid members.

Of those members meeting the above criteria, random samples of 4800 DWP and 1350 Medicaid enrollees were selected to receive the survey. Samples were drawn from IHAWP and Medicaid enrollment data from January 25, 2015. The Medicaid sample size was based on guidance from the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) for Medicaid consumer surveys. DWP members were over-sampled in order to have adequately sized groups of individuals who had utilized dental care.

Surveys were sent by mail during March-April 2015, and respondents were given the option to complete the paper survey or a web-based survey. A reminder postcard was sent two weeks after the initial mailing, and a second mailed survey was sent two weeks later. Respondents received a $2 bill as compensation for their time, and respondents who returned their surveys within the first two weeks were entered into a drawing for one of ten $25 gift cards to Wal-Mart.

Response Rates

In total, 1260 DWP members and 191 Medicaid members responded to the survey, for overall response rates of 30% and 16%, respectively, after adjusting for those who were ineligible (Table 2). Of those who completed a survey, over 90% of the respondents in each group completed the survey on paper.

Table 2. DWP and Medicaid survey response rates

	Total Sampled	Adjusted Total*	Completed	Adjusted Response Rate*
DWP	4800	4270	1260	30%
FMAP	1350	1165	191	16%
Total	6150	5435	1451	27%

*Adjusted for ineligibles, including undeliverable addresses and those living out of the state.

[8] CDC. 2014 Behavioral Risk Factor Surveillance System Questionnaire. Available at http://www.cdc.gov/brfss/questionnaires/pdf-ques/2014_brfss.pdf

Respondent Characteristics

Table 3 presents the demographic characteristics of the DWP and Medicaid survey respondents.

Table 3. Demographic characteristics of DWP and Medicaid respondents

Characteristic	DWP N=1260	FMAP N=191
Age (in years)		
19-34	24%	45%
35-54	48%	51%
55-65	28%	4%
Female	59%	71%
Race/Ethnicity†		
White	89%	84%
Black	8%	13%
Hispanic	4%	8%
Other	6%	13%
Education: > high school degree	48%	57%

† Race/Ethnicity categories are not mutually exclusive

Analytic Methods

Univariate and bivariate analyses were conducted to compare characteristics and responses between the DWP and Medicaid groups. We note the large difference in respondent group size between DWP and Medicaid and that our statistical comparisons are therefore conservative estimates. Bivariate analyses were primarily Chi-square and t-tests for group differences. The following survey items were analyzed using the SAS CAHPS® macro, which adjusts for age and oral health status to ensure that the rating of the plan is not influenced by differences in respondent characteristics:

1. Global 0-10 ratings of regular dentist, all dental care, ease of finding a dentist, and dental plan
2. Recommendation of plan to others
3. Timeliness of regular visits
4. Composite of provider communication items

We followed reporting guidance from CAHPS® and collapsed global ratings into three categories: 0-6, 7-8, and 9-10. All results are presented unweighted; analyses were conducted using SPSS Version 21 and SAS 9.4. P-values are reported only for comparisons that were statistically significant.

Limitations for findings from this survey relate to the respondent group size, response bias, and recall bias. First, the response rates for both DWP and Medicaid groups were considerably lower than desirable, and are slightly lower than in other recent surveys conducted by the PPC on a similar population.[9] In particular, the low response rate for Medicaid members resulted in a small sample (N=191). When broken into subcategories, this results in unstable reported percentages and insufficient power to detect differences. Second, as is common in survey research, the respondents to our survey were significantly older and, for DWP only, included significantly higher proportions of females and whites compared to

[9] Bentler S, Damiano P, Momany E, McInroy B, Robinson E, Pooley M. Evaluation of the Iowa Health and Wellness Plan Member Experiences in the First Year. April 2015. http://ppc.uiowa.edu/sites/default/files/ihawp_survey_interactive.pdf Accessed 30 Jun 2015.

non-respondents. Third, CAHPS questions were analyzed using the SAS CAHPS® macro, which adjusts for age and oral health status to ensure that the rating of the plan is not influenced by differences in respondent characteristics. These adjustments were not available for original items so we are unable to determine whether they are affected by age or oral health status. Finally, we inquired about issues that took place up to two years prior, so our results are likely impacted by recall bias to some extent.

Provider Surveys

This report also includes data from two surveys of dental providers, fielded post implementation of the DWP in May 2005:

1) Survey of Iowa Private Practice Dentists
2) Survey of Iowa Community Health Center Dental Clinics

Detailed survey methodology, including the survey instruments, responses to each item in the surveys, and summarized results will be posted to the PPC website when they are available.

General methods used to develop, field, and compile the data from these surveys follows.

Survey Instruments

Survey of Iowa Private Practice Dentists
Survey questions were either original or adapted from other sources which include: the Public Policy Center survey to Iowa dentists about the Medicaid program[10], a 2011 survey to mental health providers in Maryland[11], and a 2011 survey of primary care providers in Washington State[12]. The survey instrument was approved by the Iowa Medicaid Enterprise (IME) prior to distribution.

Survey of Iowa Community Health Center (CHC) Dental Clinics
Survey questions were either original or adapted from other sources which include: the 2013 Public Policy Center survey to Iowa CHC dental directors about the capacity of the public dental safety net[13], as well as a 2015 Public Policy Center survey to private practice dentists in Iowa about their experiences with the Dental Wellness Plan. The survey instrument was approved by Iowa Medicaid prior to distribution.

Survey Field Methods

Survey of Iowa Private Practice Dentists
In March 2015, regardless of DWP participation, surveys were administered to all licensed Iowa general dentists and dental specialists in private practice (n=1383) identified through the Iowa Dentist Tracking

[10] McKernan SC, Reynolds JC, Kuthy RA, Kateeb ET, Adrianse NB, Damiano PC. Factors affecting Iowa dentist participation in Medicaid. University of Iowa Public Policy Center. 2013. Available at http://ppc.uiowa.edu/sites/default/files/evaluation_of_medicaid_final.pdf
[11] Department of Health and Mental Hygiene, Mental Hygiene Administration. Maryland's public mental health system: 2011 provider survey. Available at http://bha.dhmh.maryland.gov/RESOURCES/Documents/Data/2011%20Provider%20Survey%20Executive%20Summary%20With%20Appendices%20Final%20%20112911.pdf
[12] Skillman SM, Fordyce MA, Yen W, Mounts T. Washington State Primary Care Provider Survey, 2011----2012: Summary of findings. August 2012. Available at http://depts.washington.edu/uwrhrc/uploads/OFM_Report_Skillman.pdf
[13] McKernan, op. cit., p. 13.

System (IDTS).[14] Dentists received a paper survey by mail in May 2015 and were given the option to complete the survey online. A reminder postcard was sent two weeks after the initial mailing, and a second survey was sent two weeks later to those who had not yet completed the survey. Surveys were pre-tested by two Iowa dentists in private practice who were not included in the final sample.

Survey of Iowa Community Health Center Dental Clinics
In May 2015, online surveys were administered to directors of all CHC dental clinics in Iowa (n=14) whose email addresses were provided by the Iowa Primary Care Association. An introductory email was sent prior to the survey distribution, and two reminder emails were sent (two and four weeks after the first). Results from this survey are compared with a previous survey of Iowa CHC dental directors conducted in 2013 when appropriate.

Response Rates

Survey of Iowa Private Practice Dentists
In total, 558 Iowa private practice dentists responded to the survey, for an overall response rate of 43% (after adjusting for those who were ineligible) (Table 4). 12% of respondents completed the survey online.

Table 4. Dentist Survey Response Rates

Total Population	Adjusted Total*	Completed	Adjusted Response Rate*
1383	1291	558	43%

*Adjusted for ineligibles, including undeliverable addresses and, and dentists who had retired.

Survey of Iowa Community Health Center Dental Clinics
In total, 11 out of 14 CHC dental directors responded to the survey for an overall response rate of 79%.

Respondent Characteristics

Survey of Iowa Private Practice Dentists
Table 5 presents demographic characteristics of respondent dentists. Overall, majority of the survey respondents were White males aged between 55-64 years. Majority of them were also general dentists, and employed in a group practice.

[14] Kuthy RA, McKernan SC, Hand JS, Johnsen DC. Dentist workforce trends in a primarily rural state: Iowa: 1997 -2007. J Am Dent Assoc. 2009;140(12):1527-1534.

Table 5. Demographic and practice characteristics of survey respondents† - General dentists and dental specialists

Characteristic	Respondents N=551
Age (in years)	
<35	19%
35-44	18%
45-54	20%
55-64	34%
65 or older	10%
Female	27%
Race/Ethnicity	
White	85%
Black	<1%
Hispanic	1%
Asian	1%
Unknown	13%
Specialty	
General dentistry	89%
Orthodontics	2%
Oral surgery	3%
Pediatric dentistry	2%
Endodontics	2%
Periodontics	1%
Prosthodontics	1%
Solo or Group practice	
Solo practice	48%
Group practice	52%

†Calculated using IDTS data

Analytic Methods

Survey of Iowa Private Practice Dentists

Univariate and bivariate analyses were conducted to compare characteristics of dentists who were currently accepting new DWP patients ("DWP participants") and those who were not accepting new DWP patients ("non-participants"). Dental specialists were analyzed separately from general practitioners; orthodontists were excluded from analysis due to the lack of orthodontic benefits in the DWP. Survey data were merged with data from the Iowa Dentist Tracking System (IDTS) on individual and practice information.

All results are presented unweighted, and all analyses were conducted using IBM SPSS Version 21. Statistical significance was set at $p<0.05$ level.

Limitations for this study relate to recall bias, or the potential bias inherent in respondents' attempts to remember past events, and the potential for social desirability bias. In this survey, we inquire about issues that took place up to 12 months prior, which may affect the validity of some results.

Survey of Iowa Community Health Center Dental Clinics

Descriptive analyses were conducted for all survey questions. Due to the small respondent group size, no comparative analyses were conducted. All results are presented unweighted; analyses were conducted using IBM SPSS Version 21.

There are several limitations to this study. First, there are few CHCs in the state of Iowa, limiting our ability to perform analyses beyond descriptive statistics. Second is the potential for recall bias, which may have impacted respondents' ability to provide accurate information about events that occurred up to two years prior. Finally, although questions were asked about the overall clinics' experiences with the DWP, respondents' own personal experiences may have influenced their responses.

Distance Calculations

Travel distance to the nearest participating general dentist in private practice was calculated for DWP and Medicaid members. A network dataset was created using the "North American Detailed Streets" dataset. Non road pathways (e.g., bicycle trails) were removed from the dataset. Travel time for each section of roadway was calculated using the posted speed limit and section length. A small subset of roads had no data for speed limit; these were edited to have a 15 mph speed limit in order to avoid inflated travel times when creating an origin-destination (OD) cost matrix for nearest provider determination.

The OD cost matrix was used to determine the closest provider to each member, which calculated travel time (in minutes) and distance (miles) for each member to the closest provider along the fastest travel route on the network using Manhattan distance (e.g., distance based on a grid). This method optimized travel time in order to reflect actual route choice, but may not always result in the shortest travel distance.

The study populations for distance calculations (Measure 28) included the following program members:

1. DWP members – all individuals enrolled in DWP as of February 1, 2015 with any length of eligibility. DWP providers were identified using the list of contracted dentists, as of January 2015, obtained from Delta Dental of Iowa.
2. FMAP members – all adults aged 19-64 years enrolled in Medicaid through FMAP as of February 1, 2015 with any length of eligibility. Dentists were identified as FMAP providers if they had submitted at least one claim to IME on behalf of a member of the study population from January through June 2014. This represented the most recent claims data available at the time of the analysis.

Results

Results are presented in the order found in the original evaluation plan, which allows the reader to easily find specific hypotheses and measures. For some, complete results are presented, including any variation that was required in the type of analysis from what was originally proposed. For others, there is an indication of the type of analysis that will be completed for the final report for June 2017. There are some other measures for which, after a more thorough assessment of the available data, are not appropriate and this is indicated with the measure.

Access to care

Research Question 1 – What are the effects of DWP on member access to care?

Hypothesis 1.1

DWP members will have equal or greater access to dental care.

Measure 1 Annual dental visit (Measures 1A and 1B)

1A Percent of members who had an annual dental visit

Definition	NCQA HEDIS ADV[15]; NQF 1388[16] adapted for adults
Proposed Analytic Method	1) Means tests between DWP members and 3 comparison groups before and after implementation 2) Incremental Cost-Effectiveness Ratio (ICER) utilizing DWP and MSP members and DWP and DDIA members before and after implementation
Variations from the Proposed Analytic Method	1) IowaCare not included as a comparison group 2) Protocol is being developed for final report
Specifications	Numerator: One or more dental visits with a dental practitioner during the measurement year. A member had a dental visit if they had a submitted claim/encounter for any dental service. Denominator: Unduplicated number of all enrolled adults CDT codes: Any

[15] National Committee for Quality Assurance (NCQA). Healthcare Effectiveness Data and Information Set (HEDIS®) Measures. Available at lhttp://www.ncqa.org/HEDISQualityMeasurement/HEDISMeasures.aspx

[16] National Quality Forum (NQF), National Voluntary Consensus Standards for Child Health Quality Measures: A Consensus Report, Washington, DC: NQF; 2011. Available at file:///C:/Users/aingleshwar/Downloads/Final%20Report%20Child%20Health%202010.pdf.

Results

Table 6 provides rates for members who had an annual dental visit, defined by NCQA to include any dental visit during the specified year. Rates are included for members with at least 1 month of enrollment and for those with at least 11 months of enrollment during the specified year (e.g., pre-implementation or year 1 of DWP). All rates are limited to members who met the age criterion (19-64 years) and were newly enrolled in each program.

The data in Table 6 indicate that members in FMAP were the least likely to have had an annual dental visit, both before and after implementation of the DWP. In year 1 of the program, DWP members had slightly higher rates of annual dental visits than FMAP members. DDIA members were more likely to have had a dental visit than FMAP members in either year and DWP members in year 1 of implementation. These trends were consistent when we considered either members with at least 1 month of eligibility or at least 11 months of eligibility during each year.

Table 6. Annual dental visits for members during specified years

		May 1, 2013 – April 30, 2014		May 1, 2014 – April 30, 2015		
		Pre-implementation		**Year 1**		
Eligibility per year		**FMAP**	**DDIA**	**FMAP**	**DDIA**	**DWP**
≥1 month	Number %	2931 19%	30261 36%	2273 19%	33432 36%	29589 23%
≥ 11 months	Number %	358 39%	4348 57%	464 33%	3701 55%	17752 36%

1B Whether member received an annual dental visit

Definition	NCQA HEDIS ADV; NQF 1388 adapted for adults and individuals
Proposed Analytic Method	1) Regression Discontinuity Design (RDD) comparing DWP members and MSP members at the threshold 2) Difference in Differences (DID) for DWP members and three comparison groups before and after implementation
Variations from the Proposed Analytic Method	1) Protocol for RDD is being developed for the final report 2) Protocol for DID is being developed for the final report

Results

No results available as protocols are under development.

Measure 2 Access to emergency dental care

Percent of members who needed emergency dental care and received it as soon as it was wanted

Definition	CAHPS Dental Plan Survey[17]
Proposed Analytic Method	Means tests between DWP members and MSP members
Variations from the Proposed Analytic Method	Due to low response rates to the survey question, means test could not be calculated.

Results

Among respondents who reported that they had utilized any dental care since joining their current plan (57% DWP and 60% Medicaid), 45% of DWP and 44% of Medicaid members reported needing emergency dental care in a dental office (not an ED) since joining their current plan. Of those, 76% (n=187 DWP, N=26 Medicaid) said 'definitely yes' or 'somewhat yes' in response to whether they got to see a dentist for emergency care as soon as they wanted.

Measure 3 Utilization of dental care

Whether member had a dental visit since enrolling in DWP

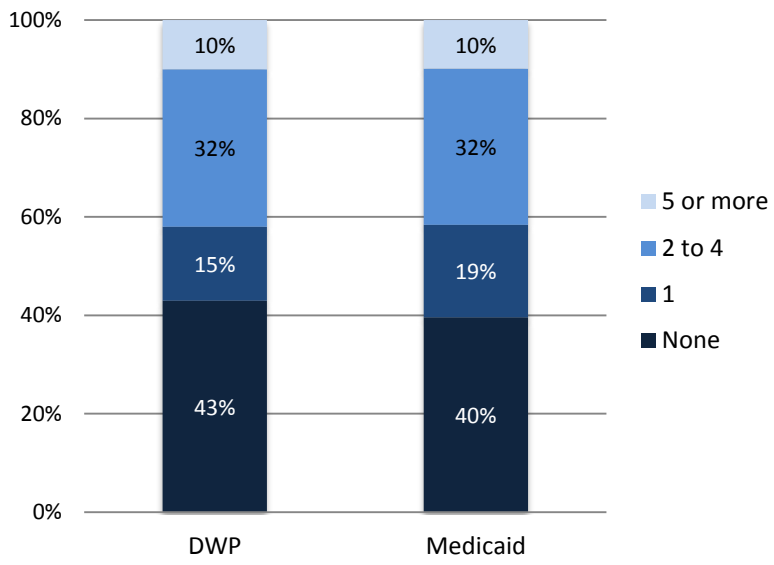
Definition	CAHPS Dental Plan Survey
Proposed Analytic Method	DID for DWP and MSP members
Variations from the Proposed Analytic Method	1) IowaCare not included as a comparison group 2) Protocol for DID is being developed for final report.

Results

Among survey respondents, 57% of DWP and 60% of Medicaid members had utilized dental care from a source other than the emergency department (ED) at least once since joining the plan (Figure 2) (p>.05).

[17] Agency for Healthcare Research and Quality (AHRQ). Patient Experience Measures for the CAHPS® Dental Plan Survey. Document No. 709. September 2011. Available at https://cahps.ahrq.gov/surveys-guidance/dental/instructions/index.html.

Figure 2. Number of visits for any dental care since joining plan, DWP and Medicaid members†



†Measured by asking the following question: "Since joining the DWP/Medicaid, not counting any times you went to an emergency room, how many times have you gone to a dentist's office or clinic to get dental care for yourself?"

Measure 4 Timely appointments and care

Composite of three questions: 1) getting appointments for routine dental care in a timely manner, 2) saw dental provider within 15 minutes of appointment time, and 3) received communication about scheduling delays in the waiting room

Definition	CAHPS Dental Plan Survey
Proposed Analytic Method	Means tests between DWP members and MSP members
Variations from the Proposed Analytic Method	Survey did not include questions 2) saw dental provider within 15 minutes of appointment time, and 3) received communication about scheduling delays in the waiting room

Results

Among respondents who reported utilizing any dental care since joining their current plan (57% DWP and 60% Medicaid), 69% of DWP and 64% of Medicaid members were 'usually' or 'always' able to obtain appointments as soon as they wanted ($p>.05$). Regarding waiting time for non-emergency dental care appointments, 65% of DWP and 60% of Medicaid members said they usually had to wait 1-2 weeks or less ($p>.05$).

Measure 5 Care from a dental specialist

Access to and unmet need for care from a dental specialist

Definition	CAHPS Dental Plan Survey
Proposed Analytic Method	Means tests between DWP members and MSP members
Variations from the Proposed Analytic Method	Survey did not ask about unmet need for specialty care, only access to specialty care. Due to low response rates to the survey question, means test could not be calculated.

Results

Among respondents who reported utilizing specialist care since joining their dental plan, 55% (n=102) of DWP and 35% (n=13) of Medicaid members said they 'usually' or 'always' got an appointment with a specialist as soon as they wanted.

Hypothesis 1.2

DWP members will be more likely to receive preventive dental care.

Measure 6 First preventive dental exam (Measures 6A and 6B)

6A Percent of members who have a dental exam within their first 6-12 months in the program

Definition	Original measure
Proposed Analytic Method	Means tests between DWP members and three comparison groups before and after implementation
Variations from the Proposed Analytic Method	IowaCare not included as a comparison group
Specifications	Dental exam defined using Dental Quality Alliance (DQA) technical specifications and DWP exam requirements. Numerator: Unduplicated number of all enrolled adults with ≥ 6 months enrollment who received a comprehensive or periodic oral evaluation. Denominator: Unduplicated number of all enrolled adults with ≥ 6 months enrollment. CDT Codes: D0120 (periodic oral evaluation), 0150 (comprehensive oral evaluation), 0180 (comprehensive periodontal evaluation) *Note: DQA Proposed Adult Measures only specify CDT codes for periodontal maintenance and fluoride application.*

Results

Table 7 displays rates at which newly enrolled members received a preventive dental exam during their first 6-12 months in each program. Preventive dental exams were identified according to DWP exam requirements. Once DWP members receive a second preventive dental exam within 6-12 months of the first exam, they become eligible for Enhanced (Tier 2) Benefits.

For members with 6-12 months of enrollment, 25% of DWP members had received a preventive dental exam. This is slightly higher than preventive dental exam among FMAP members, but substantially lower than rates among DDIA commercially-insured members. FMAP and DDIA rates of preventive dental exams within the first 6-12 months remained fairly constant during the year prior to implementation and year 1 of the DWP, although rates among FMAP members decreased slightly.

Table 7. First preventive dental exams within first 6-12 months of enrollment by program

	May 1, 2013 – April 30, 2014		May 1, 2014 – April 30, 2015		
	Pre-implementation		**Year 1**		
	FMAP	**DDIA**	**FMAP**	**DDIA**	**DWP**
Number %	1270 21%	15832 43%	1152 19%	18444 43%	22155 25%

6B Whether member received a dental exam within their first 6-12 months in the program

Definition	Original measure
Proposed Analytic Method	DID for DWP members and three comparison groups before and after implementation
Variations from the Proposed Analytic Method	1) Protocol for DID is being developed for final report

Results

No results available as protocols are under development.

Measure 7 Second preventive dental exam (recall) (Measures 7A and 7B)

7A Percent of members who have a recall within 6-12 months of their first dental exam

Definition	Original measure
Proposed Analytic Method	Means tests between DWP members and three comparison groups before and after implementation
Variations from the Proposed Analytic Method	Protocol is being developed for final report.

Results

Data for this measure are not available due to insufficient time passing since the beginning of the DWP.

7B Whether member received a recall within 6-12 months of their first dental exam

Definition	Original measure
Proposed Analytic Method	1) RDD comparing DWP members and MSP members at the threshold 2) DID for DWP members and three comparison groups before and after implementation
Variations from the Proposed Analytic Method	Protocol is being developed for final report.

Results

Data for this measure are not available due to insufficient time passing since the beginning of the DWP.

Measure 8 Any diagnostic or preventive dental care

Percent of members who receive any diagnostic or preventive dental care

Definition	Original measure
Proposed Analytic Method	Means tests between DWP members and three comparison groups before and after implementation
Variations from the Proposed Analytic Method	IowaCare not included as a comparison group
Specifications	Preventive and diagnostic services defined based on CMS 416 (Lines 12B and 12E) Numerator: Unduplicated number of all enrolled adults who received a diagnostic or preventive dental service Denominator: Unduplicated number of all enrolled adults. CDT Codes: Preventive (D1000-1999) Diagnostic (D0100-0999)

Results

In year 1 of the DWP, 36% of members with ≥11 months of eligibility received any diagnostic or preventive dental care (

Table 8). This rate is similar to the rate in the FMAP population in the year pre-implementation (35%) and substantially lower than rates for DDIA members pre-implementation and during year 1.

Table 8. Members who received any diagnostic or preventive dental care

		May 1, 2013 – April 30, 2014		May 1, 2014 – April 30, 2015		
		Pre-implementation		**Year 1**		
Eligibility per year		**FMAP**	**DDIA**	**FMAP**	**DDIA**	**DWP**
≥1 month	Number %	2816 18%	28731 34%	2193 18%	31833 34%	29188 23%
≥ 11 months	Number %	345 35%	4232 56%	450 32%	3609 54%	17585 36%

Hypothesis 1.3

DWP members will have equal or greater access to care, resulting in equal or lower use of emergency department (ED) services for non-traumatic dental care within each earned benefit tier.

Measure 9 Use of ED for non-traumatic dental related treatment (Measures 9A and 9B)

9A Percent of members who were seen for non-traumatic dental reasons in an ED for 1, 2, 3 or more visits per year while controlling for the earned benefit tier

Definition	Dental Quality Alliance (DQA) Proposed Adult Measures[18]
Proposed Analytic Method	1) Means tests between DWP members and three comparison groups before and after implementation 2) ICER utilizing DWP and MSP members and DWP and DDIA members before and after implementation
Variations from the Proposed Analytic Method	1) First year report will disregard tier 2) ED will be calculated as visits per 1,000 months 3) DQA protocol is being developed for final report
Specifications	Non-traumatic dental diagnoses: Primary diagnosis code (ICD-9) 521.00-529.9. Numerator: Unduplicated number of adults who were seen in an ER for 1, 2, 3 or more visits for non-traumatic dental reasons. Denominator: Unduplicated number of all enrolled adults seen in an ER at least once for any reason

Results

Table 9 provides the rates of ED utilization for oral health related primary diagnoses. The IowaCare group includes DWP members who were transferred into IHAWP from the IowaCare program in January 2014. IowaCare members had no access to dental care through the program and access to ED services through only two hospitals in the state. ED visit rates were 76% higher for those 19-44 years of age in DWP than the same age group in IowaCare and 54% higher those 45-64 years of age in DWP than the same age group in IowaCare. For newly eligible FMAP members, the rates remained stable over time. Rates of ED use for DWP members ages 19-44 years of age are similar to those of FMAP members.

[18] Dental Quality Alliance (DQA). Proposed Adult Measures. Available at http://www.ada.org/~/media/ADA/Science%20and%20Research/Files/Adult_Measures_under_consideration.pdf?la=en.

Table 9. Percent of members who were seen for non-traumatic dental reasons in an ED

	May 1, 2013 – April 30, 2014		May 1, 2014 – April 30, 2015	
	Pre-implementation		**Year 1**	
Eligibility	**FMAP**	**IowaCare**	**FMAP**	**DWP**
19-44 years of age				
Eligible months	69,543	236,880	62,134	597,068
Number of visits	293	554	263	2,462
Visits/1000 months	4.21	2.34	4.23	4.12
% change			0%	76%
45-64 years of age	**FMAP***	**IowaCare**	**FMAP***	**DWP**
Eligible months		201,986		438,497
Number of visits		194		647
Visits/1000 months		0.96		1.48
% change				54%

*Not reported due to small number of members in each cell

Of particular interest are the reported ED diagnoses for the four member groups. Table 10 provides the top five oral health related diagnoses by group and year. Note that there is almost no variation in diagnosis for the four groups, with Unspecified disorder of teeth and supporting structures, Dental caries-unspecified, and Periapical abscess without sinus as the three primary non-traumatic diagnoses codes for oral health-related ED visits accounting for over 75% of visits in all four groups.

Table 10. Top 5 primary diagnosis codes for oral-health related ED visits by group and year

		May 1, 2013 – April 30, 2014			May 1, 2014 – April 30, 2015		
		Pre-implementation			**Year 1**		
			IowaCare	**FMAP**	**DWP**	**FMAP**	
Description	**CDT code**	**Number %**	**Number %**	**Rank**	**Number %**	**Number %**	**Rank**
Unspecified disorder of teeth and supporting structures	525.9	346 46%	158 52%	1	1,573 51%	133 49%	1
Dental caries, unspecified	521.00	120 16%	48 16%	2	537 17%	54 20%	2
Periapical abscess without sinus	522.5	111 15%	37 12%	3	457 15%	32 12%	3
Other and unspecified diseases of oral soft tissues	528.9	43 6%	9 3%	5	122 4%	10 4%	5
Acute apical periodontitis of pulpal origin	522.4	21 3%	12 4%	4	103 3%	11 4%	4

9B Percent of members who were seen in the ED for non-traumatic dental related reasons within the reporting year and visited a dentist for treatment services within 60 days following the ED visit while controlling for the earned benefit tier

Definition	DQA Proposed Adult Measures
Proposed Analytic Method	Means tests between DWP members and the three comparison groups
Variations from the Proposed Analytic Method	IowaCare not included as a comparison group
Specifications	Numerator: Unduplicated number of adults who were seen in the ED for non-traumatic dental related reasons in the reporting year and visited a dentist for treatment services within 60 days following the ED visit. Denominator: Unduplicated number of all enrolled adults seen in an ED for non-traumatic dental related reasons.

Results

Data for this measure are not available due to insufficient time passing since the beginning of the DWP.

Hypothesis 1.4

DWP members will have equal or greater access to dental EPSDT services.

Measure 10 Dental EPSDT utilization (Measures 10A and 10B)

10A Percent of members age 19-20 with at least one EPSDT-related dental visit as defined by EPSDT procedure code modifiers

Definition	Original measure
Proposed Analytic Method	1) Means testing between DWP members and MSP members before and after implementation 2) ICER utilizing DWP and MSP members and DWP and DDIA members before and after implementation
Variations from the Proposed Analytic Method	These analyses may be removed in the future due to low member numbers for this measure.

Results

Member numbers for this measure are low; we are therefore unable to calculate Measure 10A at this time.

10B Whether member had an EPSDT dental visit

Definition	Original measure
Proposed Analytic Method	DID comparing DWP members and MSP members before and after implementation
Variations from the Proposed Analytic Method	Models for DID may be removed in the future due to low member numbers for this measure.

Results

Member numbers for this measure are low; we are therefore unable to calculate Measure 10B at this time.

Hypothesis 1.5

High risk populations in the Dental Wellness Plan will be more likely to receive preventive dental care.

Measure 11 People who are smokers: dental exam (Measures 11A and 11B)

11A Percent of DWP members who are smokers who have a dental exam within the reporting year

Definition	DQA Proposed Adult Measures
Proposed Analytic Method	1) Descriptives and comparisons for DWP members over time 2) ICER utilizing DWP and MSP members and DWP and DDIA members before and after implementation
Variations from the Proposed Analytic Method	N/A

Results

Data from clinical risk assessments that identifies smokers are not available for evaluation. At this time, it is unknown if we will be able to obtain appropriate data from clinical risk assessments necessary to evaluate this measure.

11B Whether a member identified as being a smoker had a dental exam within the reporting year

Definition	DQA Proposed Adult Measures
Proposed Analytic Method	Descriptives and comparisons for DWP members over time
Variations from the Proposed Analytic Method	N/A

Results

Data from clinical risk assessments that identifies smokers are not available for evaluation. At this time, it is unknown if we will be able to obtain appropriate data from clinical risk assessments necessary to evaluate this measure.

Measure 12 People with diabetes: dental exam (Measures 12A and 12B)

12A Percent of DWP members identified as people with diabetes who have a dental exam within the reporting year

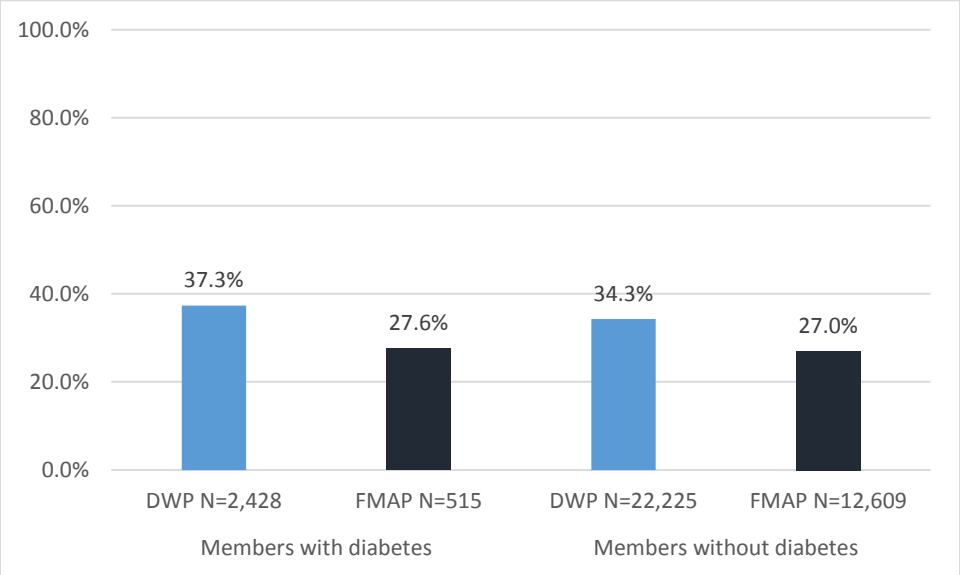
Definition	DQA Proposed Adult Measures
Proposed Analytic Method	1) Descriptives and comparisons for DWP members over time 2) Means tests between DWP members and MSP members over time 3) ICER utilizing DWP and MSP members and DWP and DDIA members before and after implementation
Variations from the Proposed Analytic Method	1) Year 1 data only
Specifications	Diabetes: At least one emergency visit defined by one of the procedure codes: 99281-99288 or one of the revenue codes: 450-459, 981 and with a principal diagnosis of diabetes (ICD-9-CM 250.00-250.99, 357.2, 362.0, 366.41, 648.0) or one hospital discharge defined by one of the procedure codes: 99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99261-99263, or 99291 or one of the revenue codes (100-149, 119, 120-124, 129, 150-154, 159, 160-169, 200-229, 720-729, or 987) with a principal diagnosis of diabetes (ICD-9-CM 250.00-250.99, 357.2, 362.0, 366.41, 648.0 or DRG 205 or 294). At least two outpatient/physician/non-acute inpatient visits defined by one of the procedure codes: 92002-92014, 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99271-99275, 99289, 99290, 99301-99303, 99311-99313, 99321-99323, 99331-99333, 99341-99355, 99384-99387, 99394-99397, 99410-99404, 99411, 99412, 99420, 99429, 99499 or one of the revenue codes: 118, 128, 138, 148, 158, 190-199, 510-529, 550-559, 570-599, 660-669, 770-779, 820-859, 880-889, 982 or 983 and with a

	diagnosis of diabetes (ICD-9-CM 250.00-250.99, 357.2, 362.0, 366.41, 648.0). Numerator: Unduplicated number of all enrolled adults (enrolled at least 11 months in the study year and the year before) identified as people with diabetes who received a comprehensive or periodic oral evaluation OR comprehensive periodontal examination at least once. Denominator: Unduplicated number of all enrolled adults (enrolled at least 11 months in the study year and the year before) identified as people with diabetes. CDT Codes: D0120 (recall), 0150 (comprehensive), or 0180 (comprehensive periodontal exam)

Results

Members with diabetes in DWP were more likely to have had a dental exam in the first year of the program than were members with diabetes in the FMAP program (Figure 3). This mirrored the results for members who did not have diabetes, indicating that the increase may not stem from increased awareness of the needs of members with diabetes, but a general increase across all members in the likelihood of having a visit.

Figure 3. Percent of members with diabetes who had a dental exam



12B Whether a member identified as having diabetes had a dental exam within the reporting year

Definition	DQA Proposed Adult Measures
Proposed Analytic Method	DID for DWP members and MSP members before and after implementation
Variations from the Proposed Analytic Method	Protocol is being developed for final report

Results

No results available as protocols are under development.

Quality of care

Research Question 2 – What are the effects of the DWP on member quality of care?

Hypothesis 2.1

DWP members will have equal or better quality of care.

Measure 13 Emergency department (ED) use

Percent of respondents who reported that the care they received at their most recent visit to the ED could have been provided in a dentist's office if one was available at the time

Definition	Original item
Proposed Analytic Method	Means tests between DWP members and MSP members
Variations from the Proposed Analytic Method	Due to low respondent numbers to these survey items, means test could not be calculated.

Results

Among DWP and Medicaid respondents who reported that they had gone to a hospital emergency department for a dental problem since joining their dental plan (4% for both, p>.05), 84% (n=37) of DWP members and 100% (n=7) of Medicaid members said that the dental care they received in the emergency room could have been provided in a dental office or clinic if one was available at the time.

Hypothesis 2.2

DWP members will report equal or greater satisfaction with the care provided.

Measure 14 Care from dentists and staff

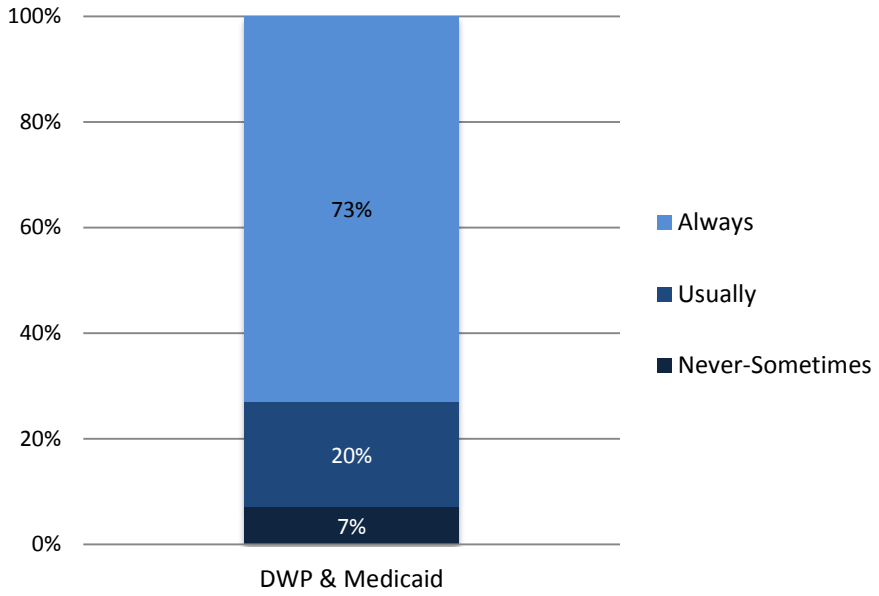
Composite measure including: 1) provider explanations are easy to understand, 2) listens carefully, 3) treats with courtesy and respect, 4) spends enough time with patient, 5) does everything they could to help patient feel as comfortable as possible during dental work, and 6) explains what they were doing while treating the patient.

Definition	CAHPS Dental Plan Survey
Proposed Analytic Method	Means tests between DWP members and MSP members
Variations from the Proposed Analytic Method	None

Results

Following CAHPS® protocol, the items measuring care from dentists and staff were combined into a single score to measure provider communication. Ninety-three percent of respondents in both groups (DWP and Medicaid) thought the communication was usually or always positive. After adjusting for age and oral health status, there was no significant difference regarding provider communication between the two groups (p>.05) (Figure 4).

Figure 4. Provider communication composite: frequency of good communication, DWP and Medicaid members



Measure 15 Rating of regular dentist

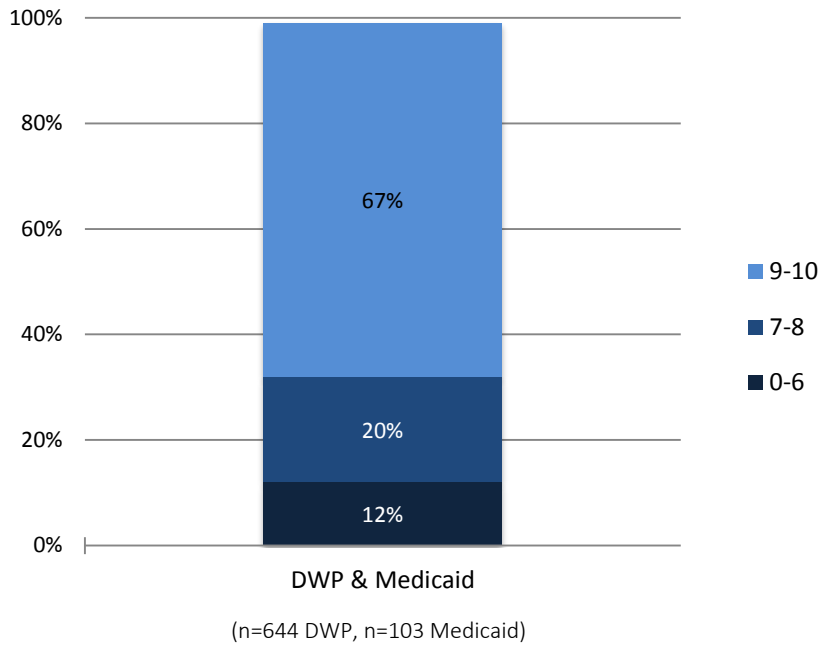
Rating of regular dentist on 0-10 scale

Definition	CAHPS Dental Plan Survey
Proposed Analytic Method	Means tests between DWP members and MSP members
Variations from the Proposed Analytic Method	None

Results

Those who had a regular dentist who accepted their dental plan were asked to rate this dentist on a scale of 0-10. Both DWP and Medicaid respondents were much more likely to rate their regular dentist highly (rating of 9-10) than all the dental care they had received (Figure 5). There was not a statistically significant difference between the two groups in regular dentist ratings (p>.05).

Figure 5. Ratings (0-10, 10 = best) of regular dentist, DWP and Medicaid members



Measure 16 Rating of all dental care received

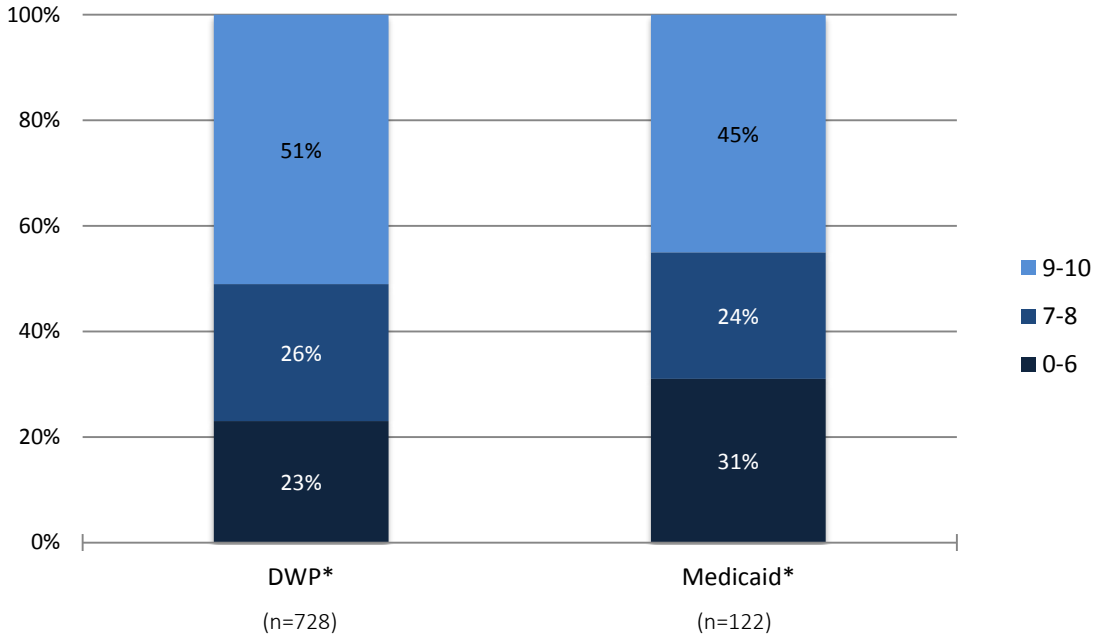
Rating of all dental care received on 0-10 scale

Definition	CAHPS Dental Plan Survey
Proposed Analytic Method	Means tests between DWP members and MSP members
Variations from the Proposed Analytic Method	None

Results

Respondents who had utilized dental care since joining their plan were asked to rate all the dental care they had received on a scale of 0-10 (10 = best). Fifty-one percent of DWP and forty-five percent of Medicaid members rated their dental care highly (rating of 9-10). After adjusting for age and oral health status, Medicaid members rated their dental care significantly lower than DWP members (p=.04) (Figure 6).

Figure 6. Ratings (0-10, 10 = best) of all dental care received, DWP and Medicaid members



*Statistically significant difference at p<.05

Measure 17 Rating of DWP

A composite measure including: 1) the quality of information provided to DWP members regarding how the plan works and how to find a provider, 2) the quality of information and provided by the DWP customer service, 3) a global rating of their new dental plan on a scale from 0 (worst possible) to 10 (best possible), and 4) whether they would recommend the plan to others.

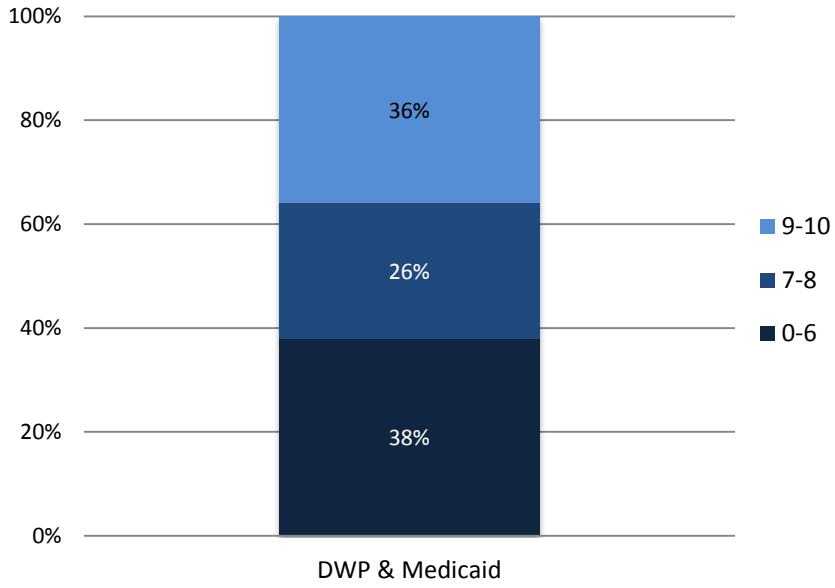
Definition	CAHPS Dental Plan Survey
Proposed Analytic Method	Descriptives and comparisons for DWP members over time
Variations from the Proposed Analytic Method	Results of the individual components are reported separately rather than as a composite measure; survey did not ask question about quality of information provided by the DWP customer service

Results

28% of DWP and 31% of Medicaid respondents reported that they had tried to find out how the Dental Wellness Plan/Medicaid works by calling their 800 number, visiting their website, or reading printed materials (p>.05). Of these, 62% of DWP and 52% of Medicaid members said it 'usually' or 'always' provided the information they wanted (p>.05).

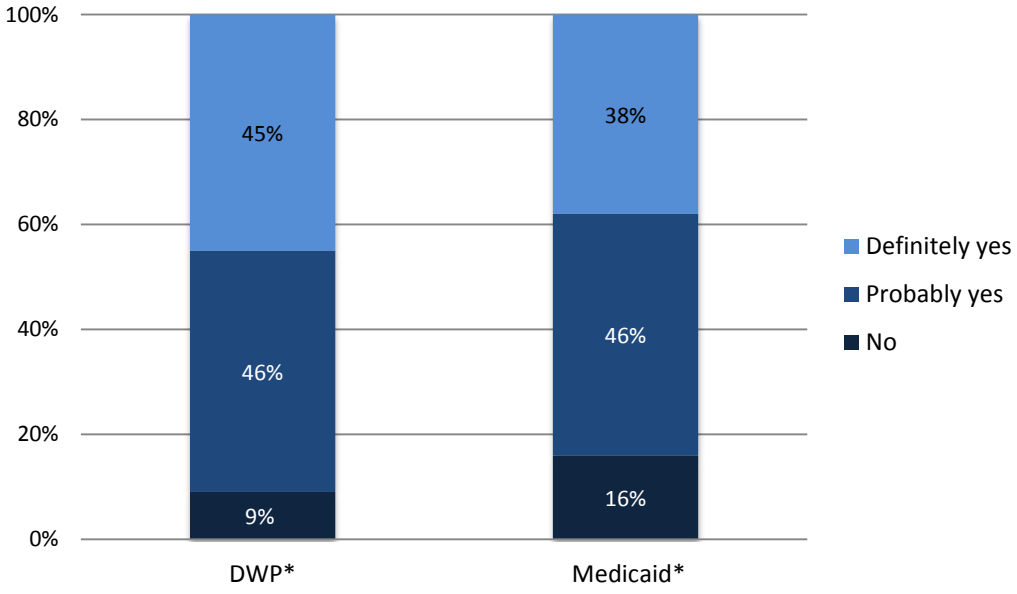
On a scale of 0-10 (10=best), just over one-third (38%) of DWP and Medicaid respondents rated their plans poorly (Figure 7). After adjusting for age and oral health status, there was not a significant difference between the two groups in how they rated their plans (p>.05).

Figure 7. Rating (0-10, 10=best) of dental plan, DWP and Medicaid members



When asked whether they would recommend their dental plan to others, significantly more DWP members said they would definitely or probably recommend their plan (p<.001) after adjusting for age and oral health status. Nine percent of DWP members said they 'probably' or 'definitely' would not recommend their plan compared to 16% of Medicaid members (Figure 8).

Figure 8. DWP and Medicaid members' recommendation of the plan to others



*Statistically significant difference at p<.05

Hypothesis 2.3

DWP members will maintain continuous access to a regular source of care.

Measure 18 Proportion who had to change regular dentist when joining the DWP

Percent of members who switched regular dentists at entry to plan

Definition	Original measure
Proposed Analytic Method	Descriptives and comparisons for DWP members over time
Variations from the Proposed Analytic Method	None

Results

Of the DWP and Medicaid members who had a regular dentist at the time of the survey, 51% of DWP and 72% of Medicaid members also had a regular dentist before joining their current plan. Of these respondents, 42% (n=144 DWP, n=31 Medicaid) of both DWP and Medicaid members switched dentists after joining their current dental plan.

Measure 19 Regular source of dental care

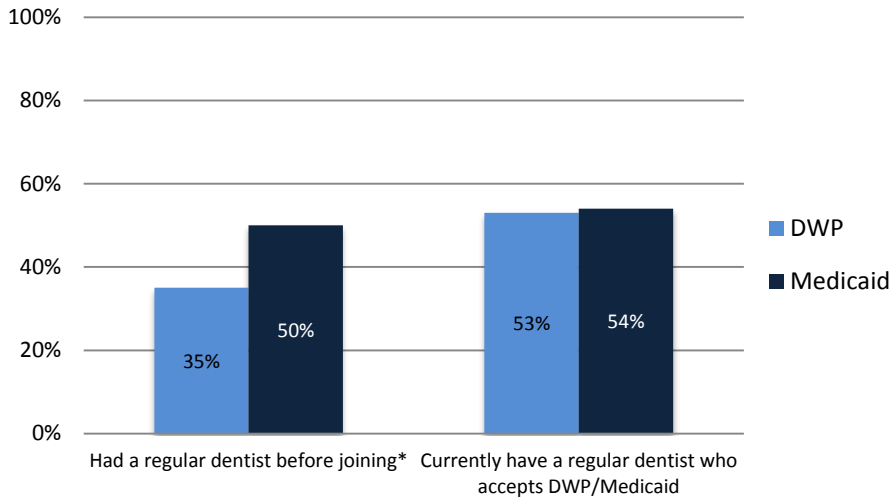
Percent of members who respond that they currently have a regular dentist

Definition	CAHPS Dental Plan Survey
Proposed Analytic Method	Means tests between DWP members and MSP members
Variations from the Proposed Analytic Method	None

Results

To measure regular source of care, respondents were asked whether they had a regular dentist before joining their current plan and whether they currently had a regular dentist at the time of the survey who accepted their dental plan. A significantly lower proportion of DWP members reported having a regular dentist before newly enrolling compared to Medicaid members (35% vs. 50%, $p<.05$) (Figure 9). However, just over half of the respondents in both groups currently report having a regular dentist who accepts their dental plan ($p>.05$).

Figure 9. DWP and Medicaid members with a regular dentist before and after joining plan



*Statistically significant difference at p<.05

Measure 20 Experience changing dentists

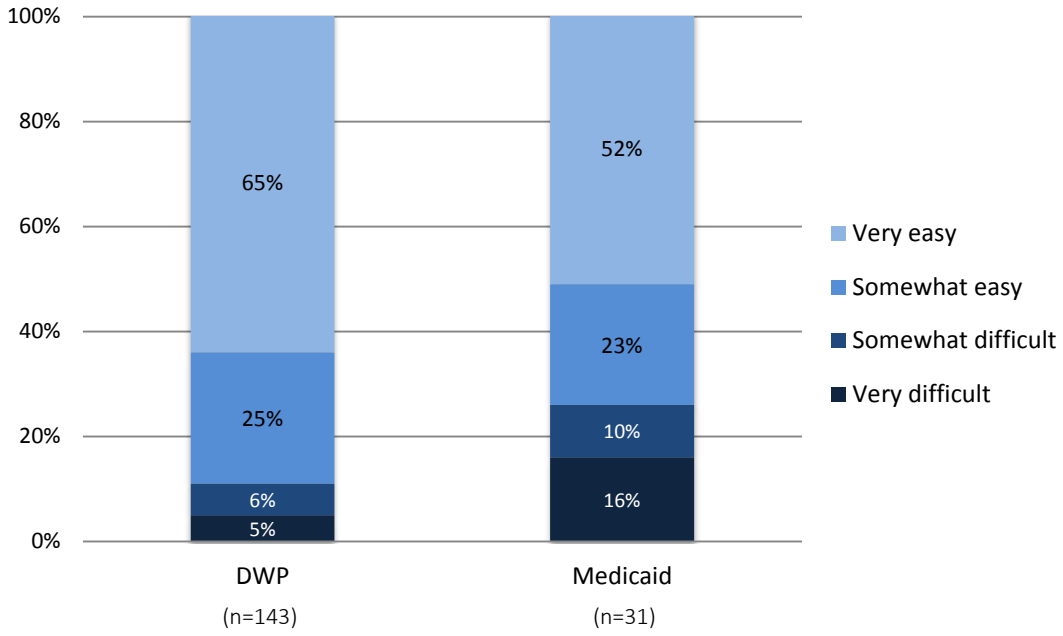
Member experiences with changing to a new regular dentist

Definition	Original item
Proposed Analytic Method	Descriptives and comparisons for DWP members over time
Variations from the Proposed Analytic Method	None

Results

Among the DWP respondents (n=144) and Medicaid respondents (n=31) who had switched dentists after joining, 90% of DWP and 74% of Medicaid respondents said it was 'very easy' or 'somewhat easy' to change providers (Figure 10). While the proportion of Medicaid members reporting that it was 'very difficult' was considerably higher compared to DWP members, the low number of respondents to this question is likely influencing the lack of statistical significance.

Figure 10. Ease of changing from previous regular dentist to a dentist in the current dental plan, DWP and Medicaid members



Cost

Research Question 3 – What are the effects of the DWP on costs of dental care as compared to traditional Medicaid dental coverage?

Hypothesis 3.1

The cost for providing dental care to DWP members will be comparable to the predicted costs for providing dental care to DWP members had they been enrolled in Medicaid State Plan.

Measure 21 Compare DWP member per member per month (PMPM) dental costs to those of MSP members (Measures 21A and 21B)

21A PMPM dental costs calculated for direct provision of care per member per month

Definition	DQA Proposed Adult Measures
Proposed Analytic Method	1) RDD comparing DWP members and MSP members at the threshold 2) DID for DWP members and MSP members before and after implementation
Variations from the Proposed Analytic Method	Protocol is being developed for final report

Results

No results available as protocols are under development.

21B PMPM dental costs calculated for direct provision of care per member per month for all enrolled adults who received at least one dental service during the reporting year

Definition	DQA Proposed Adult Measures
Proposed Analytic Method	DID for DWP members and MSP members before and after implementation
Variations from the Proposed Analytic Method	Protocol is being developed for final report

Results

No results available as protocols are under development.

Measure 22 Out-of-pocket dental costs

Percent of members who report paying out-of-pocket for any dental service since joining DWP and how much they paid

Definition	Original item
Proposed Analytic Method	Means tests between DWP members and MSP members over time
Variations from the Proposed Analytic Method	Due to low respondent numbers to these survey items, means test could not be calculated.

Results

The 49% (n=455) DWP respondents and 51% (n=70) Medicaid respondents who indicated that the plans did not always cover the services they needed (i.e., those who responded 'somewhat yes,' 'somewhat no,' or 'definitely no,' or 'don't know/not sure' regarding coverage for their needed dental care) were asked whether they paid for any dental care out-of-pocket and, if so, for what types of dental services. Nineteen percent of DWP and 23% of Medicaid members had paid for dental services out-of-pocket ($p>.05$), and, of that group, the types of services most frequently cited were 'other treatment, such as fillings' (41% DWP [n=29], 25% Medicaid [n=3]), 'checkup and cleaning' (36% DWP [n=25], 33% Medicaid [n=4]), and 'extraction' (33% DWP [n=23], 33% Medicaid [n=4]).

Respondents who had paid for dental services out of pocket (n=61 DWP, n=9 Medicaid) were asked approximately how much they had spent. DWP and Medicaid members spent a median (range) of $245 ($5-6300) and $300 ($53-800), respectively.

Earned benefit structure

Research Question 4 – What are the effects of the earned benefit structure on DWP members?

Hypothesis 4.1

The earned benefit structure for DWP members will increase regular use of routine dental exams.

Measure 23 Routine dental exams (Measures 23A and 23B)

23A Percent of members who received a comprehensive or periodic oral evaluation within the reporting year

Definition	DQA Proposed Adult Measures
Proposed Analytic Method	Means tests between DWP members and three comparison groups before and after implementation
Variations from the Proposed Analytic Method	IowaCare not included as a comparison group D0180 also included as a qualifying oral evaluation for this measure.
Specifications	Dental exam defined using DQA technical specifications and DWP exam requirements. Numerator: Unduplicated number of all enrolled adults who received a comprehensive or periodic oral evaluation. Denominator: Unduplicated number of all enrolled adults. CDT Codes: D0120 (periodic oral evaluation), 0150 (comprehensive evaluation), or 0180 (comprehensive periodontal evaluation)

Results

Routine dental exams are required for DWP members to earn additional dental benefits. Approximately 31% of DWP members with ≥11 months of eligibility received at least one routine dental exam during year 1 of the program (Table 11). This represents a higher rate of exams than the FMAP population during year 1 of the DWP (23%); however, 49% of DDIA members received at least one of these exams during the same time period.

The proportion of FMAP members receiving a routine dental exam decreased slightly over the two years, from 27% to 23%.

Table 11. Percent of members who received a routine dental exam

		May 1, 2013 – April 30, 2014		May 1, 2014 – April 30, 2015		
		Pre-implementation		**Year 1**		
Eligibility per year		**FMAP**	**DDIA**	**FMAP**	**DDIA**	**DWP**
≥1 month	Number %	2097 13%	25530 31%	1523 12%	28324 30%	24879 19%
≥ 11 months	Number %	270 27%	3879 51%	332 23%	3298 49%	15269 31%

23B Percent of members who accessed dental care (received at least one service) who received a comprehensive or periodic oral evaluation within the reporting year

Definition	DQA Proposed Adult Measures
Proposed Analytic Method	Means tests between DWP members and three comparison groups before and after implementation
Variations from the Proposed Analytic Method	IowaCare not included as a comparison group
Specifications	Numerator: Unduplicated number of all enrolled adults who received a comprehensive or periodic oral evaluation. Denominator: Unduplicated number of all enrolled adults who received at least one dental service. CDT Codes: D0120, 0150, 180

Results

DWP members were more likely than FMAP members and approximately as likely as DDIA members to receive a routine dental exam if they had a dental visit during year 1 of the DWP (

Table 12). 86% of DWP members had a routine dental exam if they had a dental visit compared to 89% of DDIA and 72% of FMAP members.

Among members with a dental visit, the proportion of FMAP members receiving a routine dental exam decreased slightly over the two years, from 75% to 72%.

Table 12. Among members who accessed dental care, percent who received a routine dental exam

		May 1, 2013 – April 30, 2014		May 1, 2014 – April 30, 2015		
		Pre-implementation		**Year 1**		
Eligibility per year		**FMAP**	**DDIA**	**FMAP**	**DDIA**	**DWP**
≥1 month	Number %	2097 72%	25530 84%	1523 67%	28324 85%	24879 84%
≥ 11 months	Number %	270 75%	3879 89%	332 72%	3298 89%	15269 86%

Hypothesis 4.2

Over 50% of members will earn access to Enhanced Benefits.

Measure 24 Timing of 1st recall visit

Percent of members who receive their 1st recall exam within 6-12 months of initial oral evaluation

Definition	Original measure
Proposed Analytic Method	Descriptives and comparisons for DWP over time
Variations from the Proposed Analytic Method	None

Results

Data for this measure are not available due to insufficient time passing since the beginning of the DWP.

Hypothesis 4.3

Over 50% of members will earn access to Enhanced Plus Benefits

Measure 25 Timing of 2nd recall visit

Percent of members who receive their 2nd recall visit within 6-12 months of 1st recall

Definition	Original measure
Proposed Analytic Method	Descriptives and comparisons for DWP over time
Variations from the Proposed Analytic Method	None

Results

Data for this measure are not available due to insufficient time passing since the beginning of the DWP.

Hypothesis 4.4

In the second year of enrollment and beyond, the regular use of recall exams will be higher than in the first year of enrollment in the program.

Measure 26 Recall exams after year one of enrollment

Percent of members who receive their 2nd recall visit within 6-12 months of 1st recall in each year of enrollment

Definition	Original measure
Proposed Analytic Method	Means tests between DWP members and three comparison groups before and after implementation
Variations from the Proposed Analytic Method	None

Results

Data for this measure are not available due to insufficient time passing since the beginning of the DWP.

Hypothesis 4.5

The earned benefit structure will not be perceived as a barrier to care.

Measure 27 Member experience with covered benefits

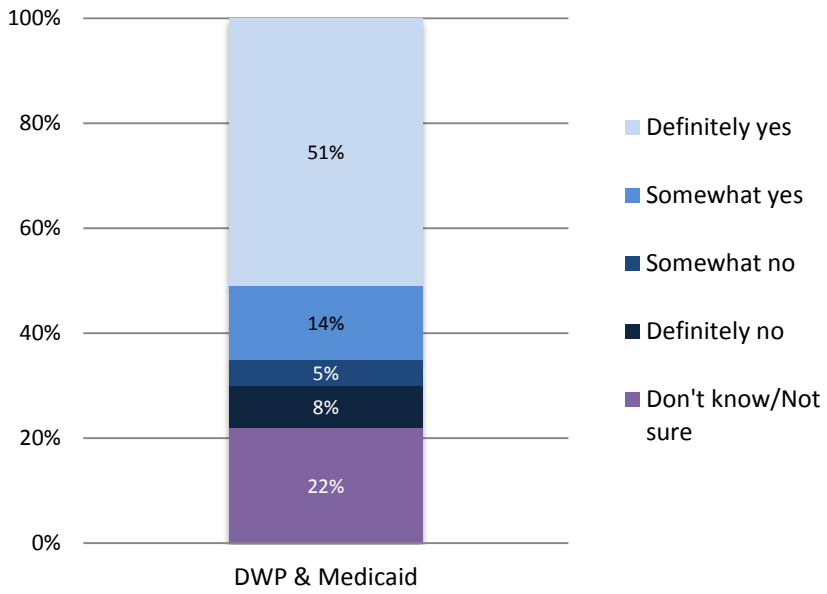
Whether needed services were covered

Definition	CAHPS Dental Plan Survey
Proposed Analytic Method	Descriptives and comparisons for DWP members over time
Variations from the Proposed Analytic Method	None

Results

All respondents were asked the question, "Thinking about all of the care that you or a dentist thought you needed since joining the DWP/Medicaid, did the DWP/Medicaid cover what you or a dentist thought you needed to get done?" Excluding those who reported not needing care since they joined (24% DWP, 28% Medicaid), there was not a statistically significant difference between the two groups regarding coverage for needed care. Thirteen percent of DWP and 17% of Medicaid members said 'somewhat no' or 'definitely no' (Figure 11) (p>.05).

Figure 11. Current dental plan has covered needed dental care, DWP and Medicaid members



Provider network adequacy

Research Question 5 – What is the adequacy of the provider network for DWP members?

Hypothesis 5.1

DWP members will have better access to an adequate provider network than those in the Medicaid State Plan as reflected by travel distance and time, access to safety net providers, and provider acceptance of new patients.

Measure 28 Travel distance and travel time to regular dentist

Average travel distance and average time to access regular dentist within local service delivery area

Definition	Original measure
Proposed Analytic Method	GIS analyses
Variations from the Proposed Analytic Method	None

Results

As of January 2015, mean distance to the nearest general dentist for DWP members was 4.0 miles and ranged from 0 to almost 50 miles (Table 13). By comparison, mean distance among Medicaid members was 2.8 miles with a maximum of 30.7 miles. Travel time showed a similar pattern: mean travel time to the nearest dentist was slightly longer for DWP members compared to Medicaid members (6.3 minutes vs. 4.7 minutes, respectively).

Table 13. Distance to the nearest general dentist for DWP and Medicaid members (January 2015)

	DWP		Medicaid	
	Travel Distance (miles)	**Travel Time (minutes)**	**Travel Distance (miles)**	**Travel Time (minutes)**
Mean	4.0	6.3	2.8	4.7
Median	1.3	2.5	1.1	2.0
Std. Dev.	6.2	9.0	4.4	6.7
Range	0 – 49.7	0 – 76.1	0 – 30.7	0 – 49.4

Note: these figures will be updated for the DWP Year 1 provider adequacy assessment (March 31, 2016)

Measure 29 Provider network inclusion of safety net dental providers, particularly FQHCs

Proportion of safety net providers in the covered counties included in the provider network

Definition	Original measure
Proposed Analytic Method	Process measure
Variations from the Proposed Analytic Method	None

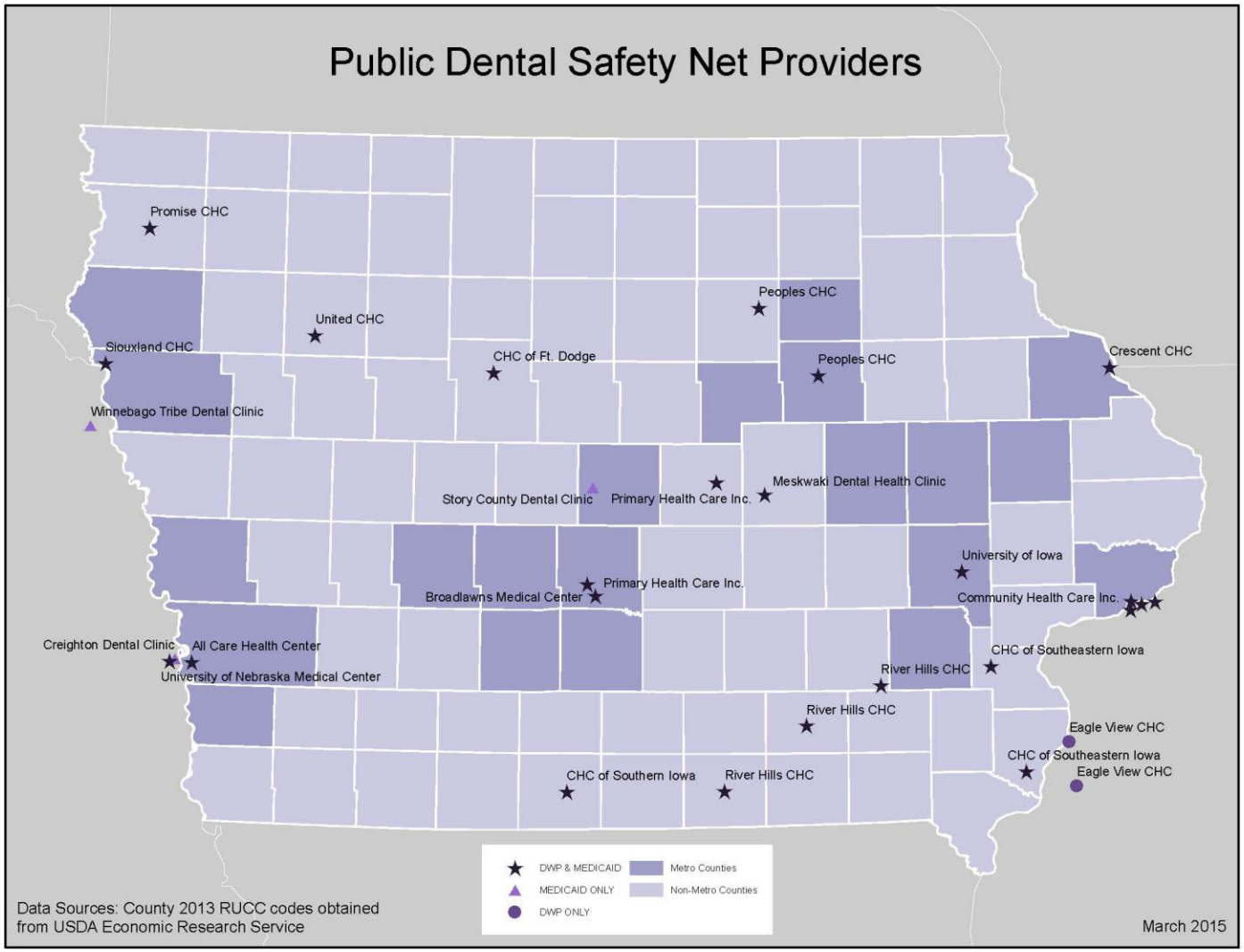
Results

Public safety net providers serving DWP members as of January 2015 included Federally Qualified Health Centers (FQHCs), other Community Health Centers (CHCs) and non-profit clinics, academic institutions, and Indian Health Services clinics.

As of January 2015, 144 dentists at 27 locations actively participated in DWP as public safety net providers. In comparison, 151 dentists participated in Iowa Medicaid as public safety net providers. It is difficult to ascertain how many locations actively provided services to Medicaid members from January through June 2014 since Iowa Medicaid Enterprises assigns a single identifier to an FQHC and all of its satellite dental clinics. If we assume that all satellite dental clinics of each FQHC that participates in Medicaid also accept Medicaid patients, then 34 locations provided dental services to Iowa Medicaid patients during the six-month study period.

In Iowa, 12 FQHCs with 17 clinic locations provided comprehensive dental services to both DWP and Medicaid members (Figure 12). Several public safety net providers in Illinois and Nebraska also participated in DWP and/or Iowa Medicaid, including the University of Nebraska Medical Center, several FQHC and CHC clinics in Illinois, and an IHS clinic in Nebraska. Several non-FQHC safety net providers that participated in Iowa Medicaid were not active DWP providers as of January 2015.

Figure 12. Locations of Public Dental Safety Net Sites by DWP and Medicaid Participation



Measure 30 Provider willingness to accept new patients

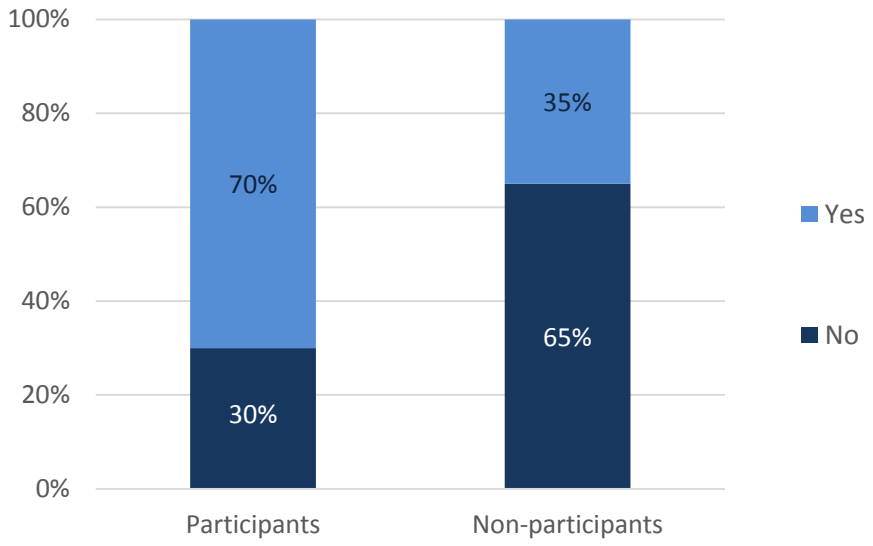
Percent of regular dentists indicating they will accept new DWP or MSP members

Definition	Original items
Proposed Analytic Method	Means tests of provider acceptance rates across DWP and MSP
Variations from the Proposed Analytic Method	None

Results

Forty-two percent of general practice dentists reported that they were currently accepting new DWP patients (DWP participants). DWP participants were significantly more likely to accept new Medicaid patients than non-participants ($p<.05$) (Figure 13). Among those currently accepting new Medicaid patients, DWP participants were also significantly more likely to accept all new Medicaid patients rather than limit acceptance ($p=.001$); 28% (n=39) of DWP participants and 10% (n=10) of non-participants reported accepting all new Medicaid patients.

Figure 13. Acceptance of new Medicaid patients (DWP participants and non-participants)*



*Chi-square test statistically significant at $p<0.05$

Measure 31 Members with a regular dentist

Percent of respondents who report that they currently have a regular dentist

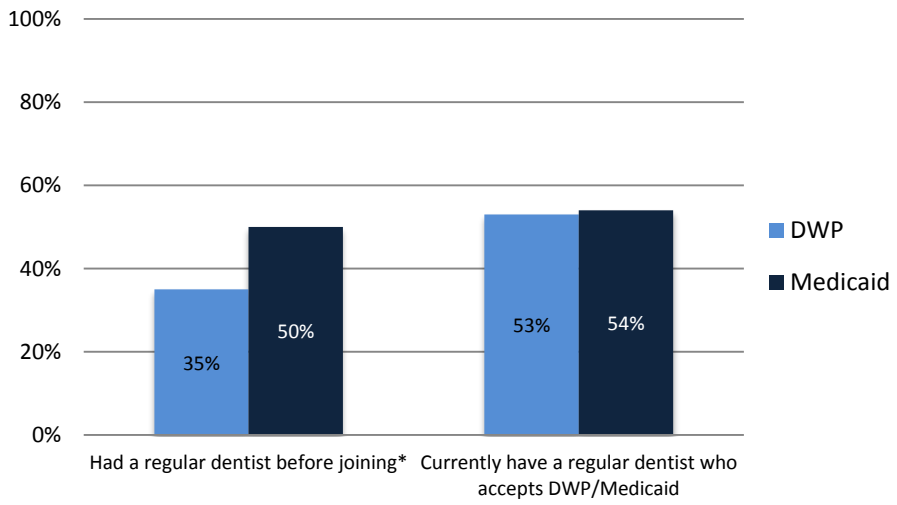
Definition	CAHPS Dental Plan Survey; Original item
Proposed Analytic Method	Means tests between DWP members and MSP members
Variations from the Proposed Analytic Method	None

Results

To measure regular source of care, respondents were asked whether they had a regular dentist before joining their current plan and whether they currently had a regular dentist at the time of the survey who accepted their dental plan. A significantly lower proportion of DWP members reported having a regular dentist before newly enrolling compared to Medicaid members (35% vs. 50%, p>.05) (Figure 14). However, just over half of the respondents in both groups currently report having a regular dentist who accepts their dental plan (p>.05).

Note: These results are the same as Measure 19 - Regular source of care.

Figure 14. DWP and Medicaid members with a regular dentist before and after joining plan



*Statistically significant difference at p<.05

Measure 32 Timeliness of getting a routine dental appointment

Percent of respondents who report that they were able to get routine dental care as soon as they wanted

Definition	CAHPS Dental Plan Survey
Proposed Analytic Method	Means tests between DWP members and MSP members
Variations from the Proposed Analytic Method	None

Results

Among respondents who reported utilizing any dental care since joining their current plan (57% DWP and 60% Medicaid), 64% of Medicaid and 69% of DWP members were 'usually' or 'always' able to obtain appointments as soon as they wanted (p>.05). Regarding waiting time for non-emergency dental care appointments, 65% of DWP and 60% of Medicaid members said they usually had to wait 1-2 weeks or less (p>.05).

Note: These results are the same as Measure 4 – Timely appointments and care.

Measure 33 Finding a new dentist

A composite measure including: 1) whether members used any information from the DWP to help them find a new dentist, 2) whether the information was helpful, and 3) how easy it was to find a new dentist.

Definition	CAHPS Dental Plan Survey
Proposed Analytic Method	Descriptives and comparisons for DWP members over time
Variations from the Proposed Analytic Method	Results of the individual components are reported separately rather than as a composite measure

Results

We inquired about information that members used to help them find a new dentist by asking the following questions: "Since joining the DWP/Medicaid, did you use any information from the dental plan to help you find a new dentist?" and, of those who said yes, "How helpful was this information in helping you find a new dentist?" 24% of DWP and 19% of Medicaid members used information from the dental plan to find a new dentist ($p>.05$). Of those who used that information, 77% (n=217) of DWP members and 61% (n=22) of Medicaid members said it was 'somewhat helpful' or 'very helpful' in helping them find a new dentist ($p>.05$).

Of those who used information from their dental plan to find a new dentist, 94% (n=59) of DWP members and 50% (n=4) of Medicaid members reported that it was 'very easy' or 'somewhat easy' to change to a new dentist in the DWP.

Provider attitudes

Research Question 6 – What are provider attitudes towards the DWP?

Hypothesis 6.1

Providers will not see the earned benefit structure as a barrier to providing care.

Measure 34 Dentist satisfaction with plan

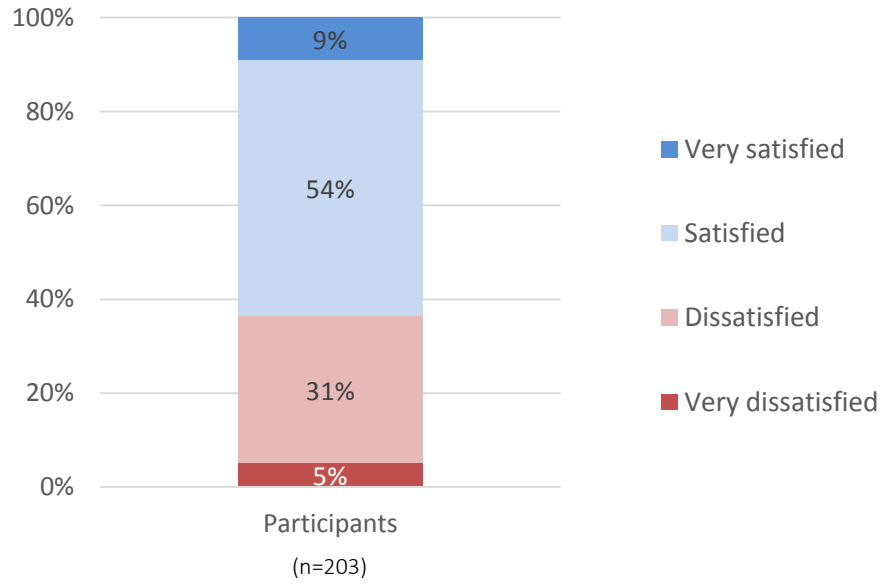
Dentist satisfaction with plan key components such as fee schedules and earned benefit structure

Definition	Original items
Proposed Analytic Method	Descriptives for providers over time
Variations from the Proposed Analytic Method	None

Results

Among DWP participants, 63% said that overall they were either 'very satisfied' (9%) or 'satisfied' (54%) with the DWP (Figure 15).

Figure 15. Satisfaction with the DWP overall (DWP participants)



Hypothesis 6.2

Over 50% of providers will remain in the plan for at least 3 years.

Measure 35 Proportion of long-term dental providers

Proportion of dentists who submitted a claim in the index year and have submitted at least 1 claim annually in the next two years

Definition	Original measure
Proposed Analytic Method	Means tests between DWP providers and providers in the MSP DID before and after implementation
Variations from the Proposed Analytic Method	Protocol is being developed for final report

Results

Complete data for this measure are not available due to insufficient time passing since the beginning of the DWP. Information about number of dentists who submitted a claim in the index year (2014-2015) is included in Table 14. During year 1, 885 dentists in 18 states submitted a claim on behalf of DWP members; 99.9% of services were provided by dentists in Iowa, Nebraska, Illinois, and South Dakota. The number of dentists who provided services to the Medicaid FMAP population decreased from 629 pre-implementation to 561 during year 1 of DWP.

Table 14. Number of unique dentists* who submitted at least 1 claim

	May 1, 2013 – April 30, 2014		May 1, 2014 – April 30, 2015		
	Pre-implementation		**Year 1**		
	FMAP	**DDIA**	**FMAP**	**DDIA**	**DWP**
≥1 claim	629	1470†	561	1491†	885

*Unique FMAP and DWP dentists are identified by NPI (individual); DDIA dentists are identified by license number.

†Available data is limited to providers in Iowa only.

Member outreach

Research Question 7 – What are the effects of DWP member outreach and referral services?

Hypothesis 7.1

Outreach services will address dentists' concerns about missed appointments.

Measure 36 Dentist perceptions of missed appointments

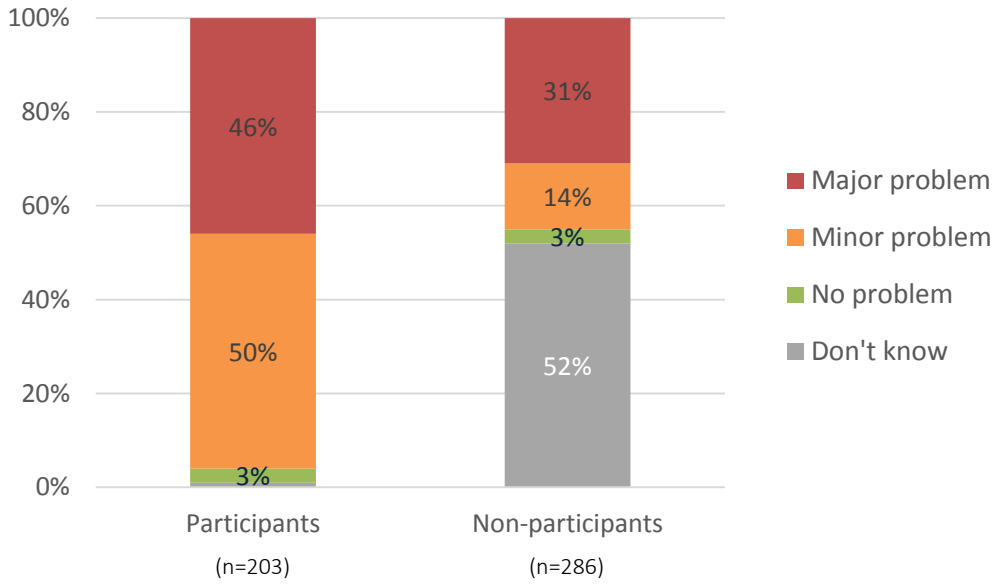
Proportion of dentists who indicate that missed appointments are a problem

Definition	Original measure
Proposed Analytic Method	Comparison of provider responses regarding DWP, MSP and DDIA members
Variations from the Proposed Analytic Method	None

Results

We asked dentist respondents the degree to which they thought certain DWP patient-related issues were problematic; comparisons were made between dentists accepting new DWP patients (DWP participants) and those not accepting new DWP patients (DWP non-participants). Broken appointments were rated as a 'major problem' by 46% of DWP participants and 31% of non-participants (Figure 16). Broken appointments was rated as a major problem by the highest percentage of respondents compared to other patient-related issues, which include: complexity of patient dental treatment needs, compliance with recommended treatment, and complexity of patient medical history.

Figure 16. Rating of 'broken appointments' as problematic (DWP participants and non-participants)†



† No statistical analyses were computed due to the large numbers of 'don't know' respondents in the non-participant group

Hypothesis 7.2

Referral services will improve access to specialty dental care.

Measure 37 Specialty dental utilization

Percent of members receiving any specialty dental services

Definition	Original measure
Proposed Analytic Method	Means tests between DWP members and three comparison groups
Variations from the Proposed Analytic Method	IowaCare not included as a comparison group; data available for 2013-2014 and 2014-2015 only
Specifications	Protocol is being developed for final report.

Results

Due to differences in how dental specialists are identified, comparisons across programs are problematic. We are currently exploring methods that would allow us to make these comparisons, if possible.

Measure 38 Timeliness of getting a dental specialist appointment

Percent of respondents who report that they were able to get specialty dental care as soon as they wanted

Definition	CAHPS Dental Plan Survey
Proposed Analytic Method	Means tests between DWP members and three comparison groups
Variations from the Proposed Analytic Method	Due to low respondent numbers to this survey question, means test could not be calculated. IowaCare & DDIA not included as comparison groups since only DWP and MSP members were surveyed.

Results

Among respondents who reported utilizing specialist care since joining their dental plan, 55% (n=102) of DWP and 35% (n=13) of Medicaid members said they 'usually' or 'always' got an appointment with a specialist as soon as they wanted.

Note: These results are the same as Measure 15 – Care from a dental specialist.

Hypothesis 7.34

Outreach will improve members' compliance with follow-up visits, including recall exams.

Measure 39 Time to recall exams at 6-12 month intervals

Time to recall exams at 6-12 month intervals when recall visits are defined as any visit that includes a comprehensive or periodic oral evaluation

Definition	Original measure
Proposed Analytic Method	Survival analyses for new members in DWP and MSP
Variations from the Proposed Analytic Method	Protocol is being developed for final report.

Results

Data for this measure are not available due to insufficient time passing since the beginning of the DWP.

March 1, 2016

Health Behaviors Incentive Program Evaluation Interim Report

Natoshia M. Askelson
*Assistant Professor, Community & Behavioral Health**, Health Policy Research Program**

Brad Wright
*Assistant Professor, Health Management & Policy**, Health Policy Research Program**

Suzanne Bentler
Assistant Research Scientist Health Policy Research Program*

Elizabeth Momany
*Assistant Director, Health Policy Research Program Associate Research Scientist**

Brooke McInory
Survey Research Manager Health Policy Research Program*

Tessa Heeren
Research Assistant Health Policy Research Program*

Peter Damiano
Director Professor, Preventative & Community Dentistry*

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**University of Iowa Public Policy Center*
***University of Iowa College of Public Health*

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Background

On January 1, 2014 Iowa implemented the Iowa Health and Wellness Plan (IHAWP). IHAWP expands coverage for low income Iowans through two new programs: the Marketplace Choice and the Wellness Plan.

> The **Wellness Plan** provides coverage for adults aged 19-64 years with income up to and including 100 percent of the Federal Poverty Level (FPL). It is administered by the Iowa Medicaid Enterprise (IME). Members will have access to the Medicaid provider network established for this program.
>
> The **Marketplace Choice Plan** provides coverage for adults aged 19-64 years with income from 101-133 percent of the Federal Poverty Level (FPL). The Marketplace Choice Plan allows members to choose certain commercial health plans available on the health insurance marketplace, with Medicaid paying the member's commercial health plan premiums.

IHAWP replaces the IowaCare program with plans that cover more services, offer a broader provider network, and expand coverage to other low income adults in Iowa who were not previously enrolled in IowaCare.

Overview of Iowa's Healthy Behaviors Incentive (HBI) Program

As a part of both the **Wellness Plan** and the **Marketplace Choice Plan**, enrollees are encouraged to participate in an HBI program involving three components: 1) a wellness exam and health risk assessment (HRA), 2) provider incentives, and 3) healthy behaviors. This program is designed to:

- Empower members to make healthy behavior changes.
- Establish future members' healthy behaviors and rewards.
- Begin to integrate HRA data with providers for clinical decisions at or near the point of care.
- Encourage members to take specific proactive steps in managing their own health and provide educational support.
- Encourage providers to engage members in completion of the healthy behaviors by offering incentive payments.

Starting in 2015, a small monthly contribution by the member may be required depending on family income, although there are no copayments for health care services and prescriptions under the plan. Some Wellness Plan members will contribute $5 per month, while Iowa Marketplace Choice Plan members will contribute $10 per month. Wellness Plan members with individual earnings less than 50 percent of the Federal Poverty Level ($5,835 per year for an individual, or $7,865 for a family of 2) will not have monthly contributions. IHAWP members who complete the wellness exam and the HRA will not be responsible for a monthly contribution.

Early survey results of IowaCare members who transitioned into IHAWP found that the vast majority (90%) were not aware that completing a wellness exam would be part of the program to have their contributions waived.

Members earning over 49% of the FPL are given a 30-day grace period after the enrollment year to complete the healthy behaviors in order to have the contribution waived. If members do not complete the behaviors after the grace period has ended, members will receive a billing statement and a request for a hardship exemption form. For members of the Wellness Plan, all unpaid contributions will be considered a debt owed to the State of Iowa but will not, however, result in termination from the Wellness Plan. If, at the time of reenrollment, the member does not reapply for or is no longer eligible for Medicaid coverage and has no claims for services after the last premium payment, the member's debt will be forgiven. For members in Marketplace Choice, unpaid contributions after 90 days result in the termination of the member's enrollment status. The member's outstanding contributions will be considered a collectable debt and subject to recovery. A member whose Marketplace Choice Plan benefits are terminated for nonpayment of monthly contributions must reapply for Medicaid coverage. The IME will permit the member to reapply at any time; however, the member's outstanding contribution payments will remain subject to recovery.

Wellness Exam

The wellness exam is an annual preventive wellness exam (New Patient CPT Codes: 99385 18-39 years of age, 99386 40-64 years of age; Established Patient CPT Codes: 99395 18-39 years of age, 99396 40-64 years of age) from any plan-enrolled physician, Rural Health Clinic (RHC), Federally Qualified Health Center (FQHC) or Advanced Registered Nurse Practitioner (ARNP). The exams are part of the preventive services covered by the plans and therefore do not cost the member anything out-of-pocket. A 'sick visit' can count towards the

requirement of the preventive exam, if wellness visit components are included and the billing code modifier 25 is used.

Health Risk Assessment

A health risk assessment (HRA) is a survey tool that can be used by members and providers to evaluate a member's health. IME has identified Assess My Health as one such tool, although providers can select their own tool if it asks similar questions. Assess My Health is an online form that takes members between 15 and 40 minutes to complete on the computer. Wellness Plan members who complete the assessment receive a one-page report and their provider is able to receive a report automatically. Members of the Marketplace Choice Plan also receive the report, but their provider does not automatically receive the report; Marketplace Choice Plan enrollees must share the report with their provider. HRA information can be used by providers to develop plans addressing member needs related to health risk determinants. The HRA could be completed online at any location, including the health care provider's office. Some clinics may have contacted patients to fill out the HRA over the phone, with the clinic inputting the data into the online system.

Provider Incentives

Providers also have incentives available to them, so that they encourage and support their patients in completing the wellness exam and HRA. Providers should be assisting members with the HRA before or during their wellness exam. For every Wellness Plan member who completes the HRA with the assistance of the provider, the provider will receive $25.00. The only HRA which qualifies for this incentive is the Assess My Health tool.

Further Behavior Incentives

Based on research indicating incentives can be used to change behavior, a program of incentives will be developed to encourage behavior change among enrollees. To participate in this part of the program, the member must have completed the wellness exam and the HRA, unless they are below 50% of the FPL or are Medically Exempt status. Plans for this part of the program are evolving.

Claims Data

Methodology

Data Sources

Data for the current quantitative analysis of the Healthy Behaviors Evaluation were derived from three sources: Medicaid enrollment and claims data from January 2012 to December 2014, Department of Human Services records on completion of wellness exams and health risk assessments in CY 2014, and 3M/TREO Solutions records on completion of health risk assessments in CY 2014. Data for 2012 and 2013 include members enrolled in the Medicaid State Plan on the basis of income or disability, and IowaCare members. As of January 1, 2014, the IowaCare program was discontinued, so there are no IowaCare members in the 2014 data. However, there are now Wellness Plan and Marketplace Choice members present in that year of the data.

Study Population and Comparison Groups

As discussed in the evaluation proposal, the focus of this evaluation is the examination of differences in outcomes between Iowa Wellness and Marketplace Choice Plan members and other comparison groups outlined below. Because there may be differences between the members in the Wellness Plan and the Marketplace Choice Plan, the evaluation documents and compares program outcomes for these groups as well.

The **Wellness Plan** provides coverage for adults aged 19-64 years with income up to and including 100 percent of the Federal Poverty Level (FPL). It is administered by the Iowa Medicaid Enterprise (IME). Members will have access to the Medicaid provider network established for this program. Depending on their county of residence, Wellness Plan members may be enrolled in one of three programs: fee-for-service, HMO, or Wellness Plan PCP.

The **Marketplace Choice Plan** provides coverage for adults aged 19-64 years and members enrolled via three methods: 1) approximately 6,700 people previously enrolled in IowaCare who had incomes from 101 to 133% FPL, 2) people who have been enrolled in Medicaid but due to increased income are now eligible for the Marketplace Choice Plan, and 3) those who have never been in a public insurance program but meet the income eligibility for Marketplace Choice (101-133% FPL).

Comparison Group 1: Medicaid State Plan (Income Eligible)

Comparison Group 1 is composed of Medicaid State Plan members enrolled due to FPL between 0 and 66%. There are approximately 300,000 adults who will have at least one month of data in the study period. These individuals may be enrolled in one of three programs: fee-for-service, HMO or MediPASS PCCM.

Comparison Group 2: Medicaid State Plan (Disability Determination)

Comparison Group 2 is composed of Medicaid State Plan members enrolled due to disability determination. The FPL for these members may range from 0 to 200%. There are approximately 25,000 adults in this group who will have at least one month of data in the study period. The only payment structure for these members is fee-for-service as they are not eligible for a managed care option.

Comparison Group 3: IowaCare

Comparison group 3 consists of former IowaCare enrollees. IowaCare was a limited provider/limited benefit program that operated from 2005-2013. The provider network included one public hospital in Des Moines, a

large teaching hospital in Iowa City and 6 federally qualified health centers. It was for adults, not otherwise eligible for Medicaid, with incomes up to 200% FPL. IowaCare enrollees were distributed in three places following the elimination of this program: 1) those with incomes 101-133% FPL were enrolled into Marketplace Choice, 2) those with incomes 0-100% FPL were enrolled in Wellness Plan, and 3) those whose income could not be verified were not enrolled in any program.

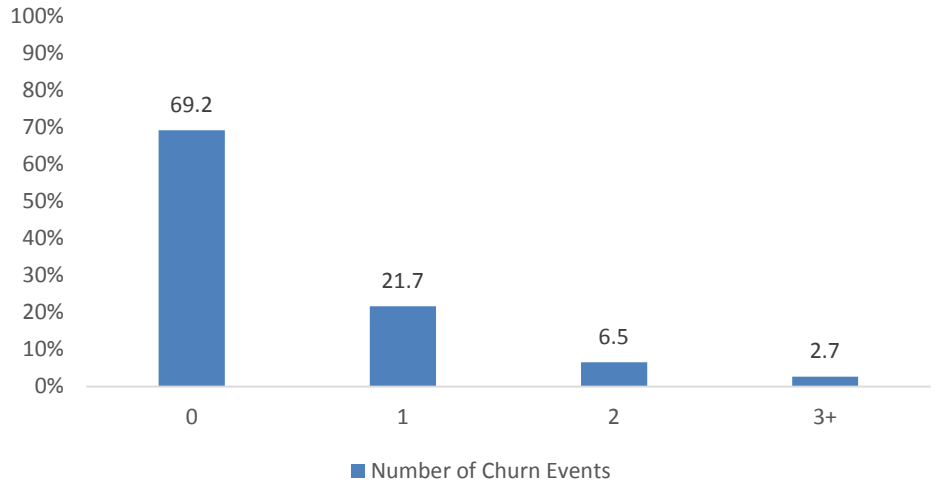
Assigning Medicaid Plan Members to Programs

Before proceeding with analyses, we assigned Medicaid plan members to 1 of the 5 groups described above. For the expansion population, we assigned plan members to either the Iowa Wellness Plan or the Marketplace Choice Plan. We assigned other individuals to 1 of the 3 comparison groups which included income-eligible Medicaid State Plan members, disability-eligible Medicaid State Plan members, and IowaCare members.

We attributed individuals to a program if they were enrolled in that program **for at least 6 months during the year.** Because individuals can move into and out of Medicaid programs for various reasons, we created a churn variable to identify instances when a member changed programs from one month to the next or experienced a gap in coverage. We then aggregated the monthly data to the annual level and counted the number of these transitions in enrollment, as shown in Figure 1.

To ensure that program assignment resulted in mutually exclusive groups, we required that members **never enrolled in another program or experienced a gap in coverage during the year** (in addition to the minimum 6 month enrollment criterion). We were not comfortable assigning individuals who moved between programs or experienced gaps in coverage to any particular program. However, we also wanted to avoid simply dropping these data from our analyses. Therefore, we examine the group of individuals experiencing churn separately.

Figure 1. Percent of Members Who Churn in 2014



Univariate Analyses

First, we examined the annual completion rate for wellness exams among the Wellness Plan and Marketplace Choice plan members and the IowaCare and Medicaid State Plan comparison groups. We also included a group of individuals from any of these programs who experienced any churn or gaps in coverage as a distinct group. This measure (completion of wellness exam) was derived using Medicaid claims data, as these were the only data available for all programs (Department of Human Services is only tracking completion of wellness exams among the Wellness Plan and Marketplace Choice Plan members). As baselines for comparison, these analyses uses data from 2012 and 2013 in addition to the 2014 data. T-tests were used to compare the means between program pairs, and all differences were statistically significant at $p<0.001$.

Second, we examined the completion rate for health risk assessments among the Wellness Plan and Marketplace Choice Plan members in 2014. We also included a group of individuals who were enrolled for 6 months in the Wellness Plan and/or 6 months in the Marketplace Choice plan, but who experienced any churn or gaps in coverage. Because three different data sources were available, we report the completion rates using each measure available to us. These included data collected by 3M/TREO Solutions (under contract to the state), records maintained by the Iowa Department of Human Services (DHS), and Medicaid claims.

Third, we examined the rate of completing both activities (wellness exam AND health risk assessment) among the Wellness Plan and Marketplace Choice plan members in 2014. We also included a group of individuals who were enrolled for 6 months in the Wellness Plan and/or 6 months in the Marketplace Choice plan, but who experienced any churn or gaps in coverage. This outcome is important as completion of both activities is required to avoid being charged a monthly premium. Because the state will be using DHS records to make premium and disenrollment determinations, we rely on these DHS records for wellness exam and health risk assessment completion in constructing this outcome.

Bivariate Analyses

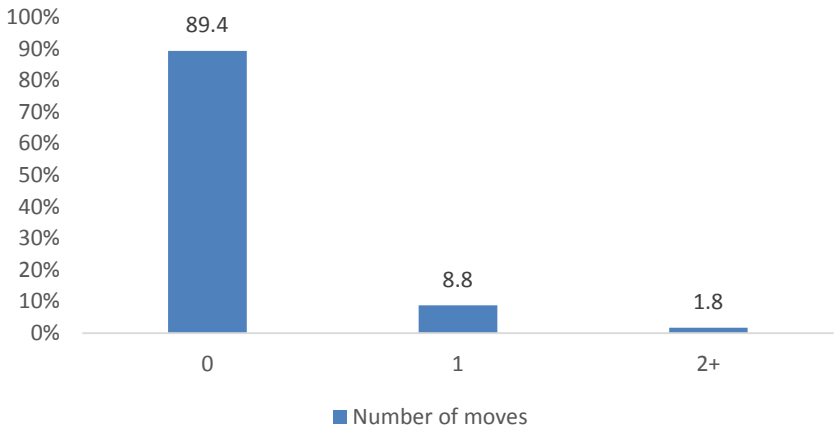
Fourth, we separately explored the demographics of Wellness Plan and Marketplace Choice plan members in 2014, stratifying them on the basis of whether or not they had completed their HRA, wellness exam, or both. Specifically, we included analyses of age, gender, race/ethnicity, metropolitan area of residence, number of emergency department visits, number of prescription drugs, and number of chronic conditions. We used rural-urban continuum codes (RUCCs) to categorize members' county of residence as either metropolitan, non-metropolitan urban, or non-metropolitan rural.

Multivariate Analyses

Finally, we ran a series of logistic regression models to predict the likelihood of Wellness Plan and Marketplace Choice plan members completing an HRA, wellness exam, or both during CY 2014. Specifically, we modeled each of these outcomes as a function of age, gender, race/ethnicity, metropolitan area of residence, number of moves during the year, number of emergency department visits, number of prescriptions, number of chronic conditions, and number of months with full Medicaid coverage (which could range from 6 to 12 months).

Depending on the year, between 7% and 10.5% of our sample moved during the year as shown in Figure 2. When individuals relocate for any reason, it is likely to be a disruptive event. Therefore, we include a variable in our models that indicates the number of times a member moved to a different county in Iowa during the year.

Figure 2. Members Who Move From One County to Another in 2014



Deviations from Proposed Methods

Originally, we proposed to determine the proportion of WP/MPC members who completed at least 1 additional behavior incentive, hypothesizing that it would exceed 50%. However, to date, no additional healthy behaviors or incentives have been identified beyond the completion of the wellness exam and the health risk assessment. Since completion of both activities is required to avoid being charged premiums, we modified this part of the evaluation to instead determine the proportion of WP/MPC members who completed both activities (wellness exam and HRA).

Results

Table 1. Descriptive Statistics of Population of Interest

	Wellness Plan			Marketplace Choice		
	Observations	Value*	Std. Dev.	Observations	Value*	Std. Dev.
Average Age	64686	39.8	12.95	17830	39.7	12.80
% Male	64686	54.7	0.50	17830	43.4	0.50
% White	64686	61.5	0.49	17830	64.7	0.48
% Black	64686	8.3	0.28	17830	5.2	0.22
% Hispanic	64686	3.7	0.19	17830	5.2	0.22
% Other Race	64686	4.0	0.20	17830	4.7	0.21
% Unknown Race	64686	22.3	0.42	17830	20.1	0.40
% Metropolitan	64686	59.0	0.49	17830	57.3	0.49
% Nonmetropolitan Urban	64686	37.7	0.48	17830	38.5	0.49
% Nonmetropolitan Rural	64686	4.0	0.19	17830	4.8	0.21
Number of Moves	64686	0.1	0.37	17830	0.1	0.33
Number of ER Visits	64686	0.6	1.60	17830	0.4	1.00
Number of Rx Drugs	64686	1.2	2.00	17830	0.9	1.62
Number of Chronic Conditions	64686	1.5	1.98	17830	1.2	1.76
Months of Coverage (6 - 12)	64686	10.1	2.02	17830	10.0	2.00

*Note: Values for average age, number of moves, ER visits, Rx drugs, chronic conditions, and months of coverage are means within the Wellness Plan and Marketplace Choice Plan, respectively. Values for all other variables are proportions of the member population in that plan with a given characteristic. For example, in the above table, 61.5% of Wellness Plan members are white, 8.3% are black, and so forth, such that the race proportions sum to 100% within the Wellness Plan column (with differences due to rounding).

The following results are organized by the questions and hypotheses as outlined in the original evaluation proposal. Descriptive statistics for our populations of interest who had either 6 months of exclusive enrollment in either the Iowa Wellness Plan or the Marketplace Choice Plan are shown in Table 1.

Question 1 *Which activities do members complete?*

Hypothesis 1.1

The proportion of Wellness Plan (WP) and Marketplace Choice (MPC) members who complete a wellness exam is greater than the proportion of Medicaid State Plan (MSP) or IowaCare members.

Measure 1 Proportion of members who had a preventive care visit

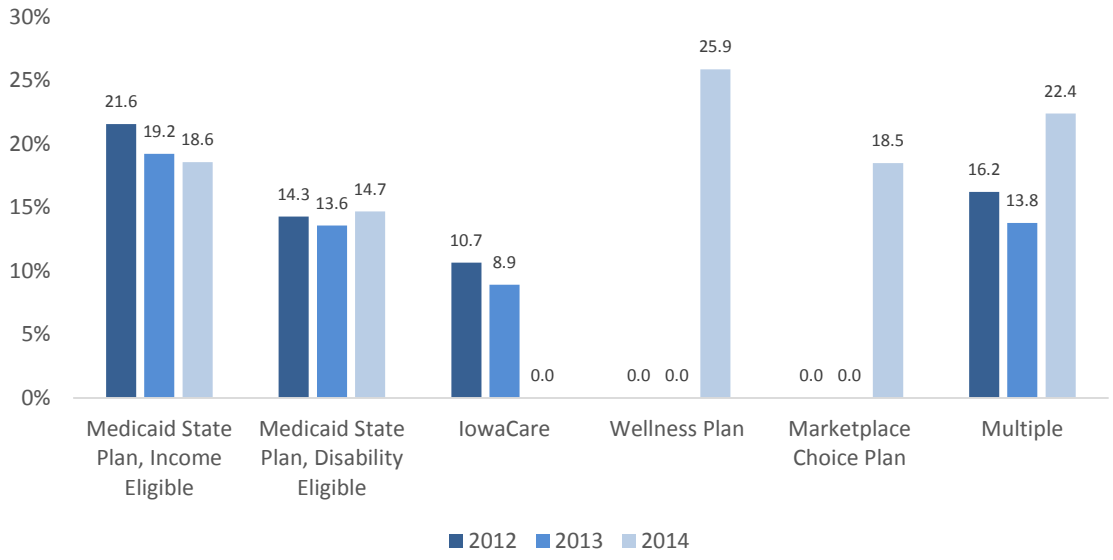
Protocol-NCQA HEDIS AAP

Data source-Administrative

Analyses-Means tests between WP/MPC members and three comparison groups before and after implementation

We were able to document the proportion of members completing a wellness exam both pre and post using Medicaid claims data. This allows us to compare trends among the 3 comparison groups with the first year of data available for Wellness Plan and Marketplace Choice Plan members. As Figure 3 shows, our hypothesis 1.1 is partially supported. The proportion of Wellness Plan members completing a wellness exam in 2014 was nearly 26%, which is the highest documented rate among all groups and all years of data analyzed. The corresponding figure among Marketplace Choice plan members was just 18.5%. Among the income-eligible Medicaid State Plan members, there is a declining trend over time, going from approximately 22% to 19%. This is the highest rate among the 3 comparison groups. By contrast, roughly 14% of the disability-eligible Medicaid State Plan members and 9 – 11% of IowaCare members completed a wellness exam. The "multiple" group (those who experienced churn) reflects rates of completion comparable to averages of the comparison groups in 2012 and 2013 and comparable to averages of the Wellness Plan and Marketplace Choice Plan with the two Medicaid State Plan comparison groups in 2014. However, in every case, an overwhelming majority of members failed to complete an annual wellness exam.

Figure 3. Members Who Completed a Wellness Exam as Identified by Claims Data, 2012 – 2014



Hypothesis 1.2

The proportion of WP/MPC members who complete a Health Risk Assessment is greater than 50%.

Measure 2 Proportion of WP/MPC members completing HRA

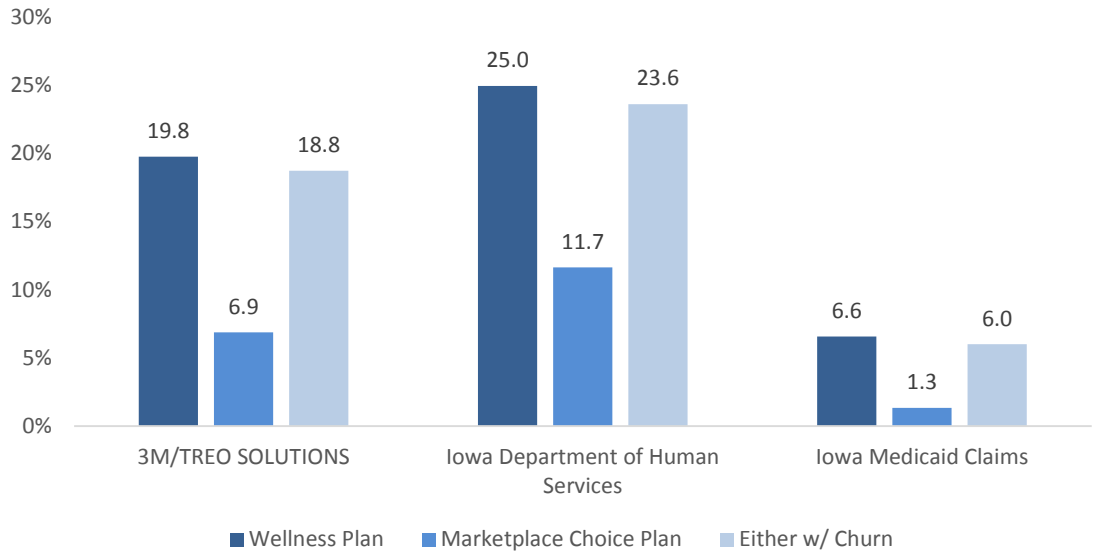
Protocol-Original

Data source-Administrative

Analyses- Descriptives regarding the rate of completion for WP/MPC members

As Figure 4 shows, our hypothesis 1.2 is not supported. While there is significant variation in the results depending on the data source used to identify completion of a Health Risk Assessment, no result exceeds 25%. Regardless of which data source is used, Wellness Plan members complete their Health Risk Assessment at a significantly greater rate (between 2.1 and 5.1 times as high) than their counterparts in the Marketplace Choice Plan. Individuals who have at least 6 months enrollment in the Wellness Plan and/or the Marketplace Choice Plan but experience churn manage to complete their HRA at a similar rate to the Wellness Plan group. It is notable that Medicaid claims appear to identify only a small proportion of Health Risk Assessments being completed, while the group contracted by the state to collect these data (3M/TREO Solutions) identifies significantly more HRA completion, and Iowa DHS records, which include individuals calling in to report having completed their HRA yield the highest completion percentage.

Figure 4. Members Who Completed a Health Risk Assessment as Identified by Each of Three Data Sources, 2014



Hypothesis 1.3

The proportion of WP/MPC members who are eligible to participate and complete at least one behavior incentive is greater than 50%.

Measure 3 Whether a WP/MPC member completed both healthy behaviors

Protocol-Original

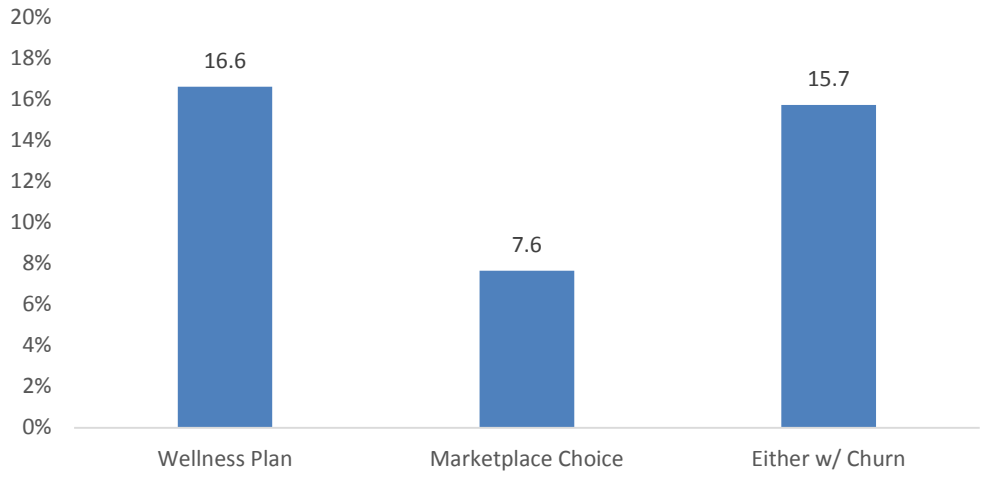
Data source-Administrative

Analyses-Descriptives regarding the rate of completion for WP/MPC members

Using the data collected by Iowa DHS, we determined the proportion of individuals in the Wellness Plan and the Marketplace Choice Plan who completed both a wellness exam and a health risk assessment in 2014. As expected, these figures are lower than the figures for completion of each activity when considered

independently. As shown in Figure 5, we find that approximately 17% of Wellness Plan members completed both activities, compared to approximately 8% of Marketplace Choice Plan members and approximately 16% of the churn group (i.e., individuals who have at least 6 months enrollment in the Wellness Plan and/or the Marketplace Choice Plan but experience churn.) These figures are especially important as they indicate the proportion of individuals who have completed the activities required to avoid being charged a monthly premium in the following year. Clearly, based on these results, the overwhelming majority of members will have been subject to a monthly premium in 2015.

Figure 5. Percent of Members Who Completed Both a Wellness Exam and Health Risk Assessment as Identified by DHS Data



Question 2 *What personal characteristics are predictive of completing at least one behavior incentive, and the number (or extent) of behavior incentives completed?*

Hypothesis 2.2

Members (WP/MPC) who are young, white, female, and/or live in metro areas are more likely to complete at least 1 behavior.

Measure 9 Completion of healthy behavior by demographic characteristics

Protocol-Original

Data source-Administrative

Analyses- Logistic regression modeling of HBI participation

Hypothesis 2.3

Members (WP/MPC) with poorer health status are less likely to complete the behaviors when compared to members with better health status.

Measure 10 Health Status by completion of healthy behavior

Protocol-Original

Data source-Administrative

Analyses- Logistic regression modeling of HBI participation

Tables 2 and 3 provide descriptive statistics for the Wellness Plan and Marketplace Choice Plan members broken out by whether or not they completed an HRA, Wellness Exam, or Both. These data indicate that those completing activities tended to be older, white, female, have more health conditions, and more months enrolled in Medicaid coverage during the year.

Table 2. Demographics of Members in Iowa Wellness Plan Who Did Not vs. Did Complete Activities in 2014

	Completed HRA		Completed Wellness Exam		Completed Both	
	No	Yes	No	Yes	No	Yes
Average Age	38.3	44.3	38.6	43.2	38.7	45.3
% Male	57.5	46.2	60.7	38.6	57.3	41.5
% White	60.4	65.1	60.5	64.3	60.7	65.5
% Black	8.8	7.0	8.7	7.3	8.7	6.6
% Hispanic	3.9	3.3	3.7	3.8	3.8	3.3
% Other Race	4.2	3.5	3.9	4.5	4.2	3.4
% Unknown Race	22.7	21.2	23.2	20.1	22.6	21.2
% Metropolitan	57.1	64.8	58.1	61.5	58.1	63.8
% Nonmetropolitan Urban	39.6	31.7	38.6	35.2	38.7	32.4
% Nonmetropolitan Rural	4.0	4.0	4.0	4.0	3.9	4.3
Number of ER Visits	0.6	0.7	0.6	0.7	0.6	0.6
Number of RX Drugs	0.9	2.0	0.9	1.9	1.0	2.1
Number of Chronic Conditions	1.3	2.2	1.3	2.2	1.3	2.3
Months of Coverage (6- 12)	9.9	10.9	9.9	10.9	9.9	11.1

Note: Values for average age, number of moves, ER visits, Rx drugs, chronic conditions, and months of coverage are means within the Wellness Plan stratified by completion of the activities, respectively. Values for all other variables are proportions of the member population in that plan by activity completion. For example, in the above table, 57.5% of Wellness Plan members who did not complete an HRA in 2014 were male, while 46.2% of Wellness Plan members who did complete an HRA in 2014 were male. Therefore, row percentages will not sum to 1, but column percentages (e.g., for race) will (with differences due to rounding).

Table 3. Demographics of Members in Marketplace Choice Plan Who Did Not vs. Did Complete Activities in 2014

	Completed HRA		Completed Wellness Exam		Completed Both	
	No	Yes	No	Yes	No	Yes
Average Age	38.9	45.6	39.0	42.2	39.1	46.0
% Male	44.7	33.4	48.0	26.7	44.5	30.9
% White	64.2	68.3	63.7	68.6	64.3	70.2
% Black	5.4	3.9	5.4	4.8	5.3	4.3
% Hispanic	5.3	4.0	5.3	4.9	5.3	3.4
% Other Race	4.8	4.1	4.8	4.5	4.8	3.9
% Unknown Race	20.2	19.6	20.9	17.3	20.3	18.1
% Metropolitan	57.1	58.5	57.3	57.3	57.3	57.6
% Nonmetropolitan Urban	38.8	36.9	38.6	38.5	38.6	37.5
% Nonmetropolitan Rural	4.8	5.1	4.8	4.9	4.7	5.4
Number of ER Visits	0.4	0.4	0.3	0.4	0.4	0.4
Number of RX Drugs	0.8	1.7	0.8	1.5	0.9	1.8
Number of Chronic Conditions	1.1	2.0	1.1	1.8	1.2	2.1
Months of Coverage (6- 12)	9.9	10.8	9.8	10.8	9.9	11.1

Note: Values for average age, number of moves, ER visits, Rx drugs, chronic conditions, and months of coverage are means within the Marketplace Choice Plan stratified by completion of the activities, respectively. Values for all other variables are proportions of the member population in that plan by activity completion. For example, in the above table, 48% of Marketplace Choice Plan members who did not complete a wellness exam in 2014 were male, while 26.7% of Marketplace Choice Plan members who did complete a wellness exam in 2014 were male. Therefore, row percentages will not sum to 1, but column percentages (e.g., for race) will (with differences due to rounding).

Using multivariate logistic regression models, we are able to predict the likelihood of individuals completing their HRA, Wellness Exam, or Both activities as a function of age, gender, race/ethnicity, metropolitan area of residence, number of moves during the year, number of emergency department visits, number of prescriptions, number of chronic conditions, and number of months with full Medicaid coverage (which could range from 6 to 12 months). For the sake of comparison, we present the results for the Wellness Plan and Marketplace Choice Plan in the same table for each outcome measure.

Table 4 presents the results of the logistic regression models predicting completion of the Health Risk Assessment. Overall, the results are fairly consistent between Wellness Plan members and Marketplace Choice Plan members. In both plans, each additional year of age was associated with 3% greater odds of completing an HRA, while men had approximately 25% lower odds of completing an HRA than women. Among Wellness

Plan members, non-white race was associated with significantly reduced odds of completing an HRA, ranging from 15% lower odds to 21% lower odds depending on the racial group. While the odds ratios for non-white races were also less than 1 among Marketplace Choice Plan members, these figures were not statistically significant. This may be driven by the smaller sample size in this group.

Compared to individuals living in non-metropolitan urban areas, individuals in metropolitan areas and non-metropolitan rural areas had higher odds of completing an HRA, and the effects were larger among Wellness Plan members than Marketplace Choice members. In the Wellness Plan, residents of metropolitan areas had 67% higher odds of completing their HRA, while those in non-metropolitan rural areas had 14% higher odds of completing their HRA, compared to those in non-metropolitan urban areas. In the Marketplace Choice Plan, residents of metropolitan areas had 21% higher odds of completing their HRA compared to those in non-metropolitan urban areas. The number of times an individual moved from one county to another was not a significant predictor of HRA completion among Marketplace Choice Plan members, but each move was associated with a 13% reduction in the odds of completing an HRA among Wellness Plan members, suggesting that relocation may be especially disruptive among those with extremely low incomes.

The proxy variables for health status include the number of annual emergency room visits, the average number of monthly prescription drugs taken, and the number of chronic health conditions. We find that each additional emergency room visit is associated with 6% lower odds of completing an HRA for Wellness Plan members and 9% lower odds for Marketplace Choice Plan members. By contrast, each additional prescription drug is associated with a 12% increase in the odds of completing an HRA among both Wellness Plan and Marketplace Choice Plan members, and each additional chronic condition is associated with a 7% increase in the odds of completing an HRA among Wellness Plan members and a 10% increase in the odds among Marketplace Choice Plan members. Taken together, this suggests that individuals who have more frequent interactions with the healthcare system (as evidenced by having more chronic conditions and more prescriptions) will have more opportunities to be prompted to complete their HRA, while those who are more reliant on the emergency room for their care are not getting their HRA as often because they are more likely to be receiving fragmented care as opposed to patient-centered care.

Finally, we find that each additional month of coverage (beyond the 6 month minimum required for inclusion in our sample) is associated with 29% higher odds of completing an HRA for Wellness Plan members and 27% higher odds of completing an HRA for Marketplace Choice Plan members. This is as expected, given that the more time a person has to complete the activity, the more likely they are to complete it.

Table 4. Odds of Completing HRA Based on Insurance Plan

	Wellness Plan		Marketplace Choice	
	OR	95% CI	OR	95% CI
Age	1.03***	1.02, 1.03	1.03***	1.03, 1.03
Male	0.74***	0.71, 0.77	0.75***	0.67, 0.82
Black	0.79***	0.73, 0.85	0.83	0.65, 1.06
Hispanic	0.84***	0.75, 0.93	0.83	0.66, 1.06
Other Race	0.82***	0.74, 0.91	0.99	0.78, 1.25
Unknown Race	0.85***	0.81, 0.89	0.96	0.85, 1.09
Metropolitan	1.67***	1.61, 1.75	1.21***	1.10, 1.34
Nonmetropolitan Rural	1.14*	1.03, 1.26	1.14	0.91, 1.43
Number of Moves	0.87***	0.83, 0.92	0.99	0.86, 1.15
Number of ER Visits	0.94***	0.92, 0.95	0.91***	0.86, 0.96
Number of Rx Drugs	1.12***	1.11, 1.14	1.12***	1.09, 1.16
Number of Chronic Conditions	1.07***	1.06, 1.08	1.10***	1.06, 1.13
Months of Coverage (6 - 12)	1.29***	1.27, 1.30	1.27***	1.23, 1.30
Constant	0.01***	0.01, 0.01	0.00***	0.00, 0.00

Table 5 presents the results of the logistic regression models predicting completion of the Wellness Exam. Overall, the results are fairly consistent between Wellness Plan members and Marketplace Choice Plan members. In both plans, each additional year of age was associated with 1% greater odds of completing a Wellness Exam, while men had approximately 55% lower odds of completing a Wellness Exam than women. Among both Wellness Plan and Marketplace Choice Plan members, there was no difference in the odds of completing a Wellness Exam between whites, blacks, and Hispanics. However, in the Wellness Plan, those of other races had 23% greater odds of completing a Wellness Exam relative to whites, while in both plans those of unknown race had between 11 and 13% lower odds of completing a Wellness Exam relative to whites.

Compared to individuals living in non-metropolitan urban areas, individuals in metropolitan areas had higher odds of completing a Wellness Exam, and the effects were larger among Wellness Plan members than Marketplace Choice members. In the Wellness Plan, residents of metropolitan areas had 31% higher odds of completing their Wellness Exam, compared to those in non-metropolitan urban areas. In the Marketplace Choice Plan, residents of metropolitan areas had 10% higher odds of completing their Wellness Exam compared to those in non-metropolitan urban areas. There was no difference between individuals living in urban versus rural non-metropolitan areas. The number of times an individual moved from one county to another was not a significant predictor of Wellness Exam completion among Marketplace Choice Plan

members, but each move was associated with a 7% reduction in the odds of completing a Wellness Exam among Wellness Plan members, suggesting that just as was observed for the HRA, relocation may be especially disruptive among those with extremely low incomes.

The proxy variables for health status include the number of annual emergency room visits, the average number of monthly prescription drugs taken, and the number of chronic health conditions. We find that each additional emergency room visit is associated with 7% lower odds of completing a Wellness Exam for Wellness Plan members and 8% lower odds for Marketplace Choice Plan members. By contrast, each additional prescription drug is associated with a 12% and 11% increase in the odds of completing a Wellness Exam among Wellness Plan and Marketplace Choice Plan members respectively, and each additional chronic condition is associated with a 10% increase in the odds of completing a Wellness Exam among members of both plans. These results are very similar to those for the HRA model, and again suggest that individuals who have more frequent interactions with the healthcare system (as evidenced by having more chronic conditions and more prescriptions) will have more opportunities to be prompted to complete their Wellness Exam, while those who are more reliant on the emergency room for their care are not getting their Wellness Exam because they are more likely to be receiving fragmented care as opposed to patient-centered care.

Finally, we find that each additional month of coverage (beyond the 6 month minimum required for inclusion in our sample) is associated with 27% higher odds of completing a Wellness Exam for Wellness Plan members and 29% higher odds of completing a Wellness Exam for Marketplace Choice Plan members. This is as expected, given that the more time a person has to complete the activity, the more likely they are to complete it.

Table 5. Odds of Completing Wellness Exam Based on Insurance Plan

	Wellness Plan		Marketplace Choice	
	OR	95% CI	OR	95% CI
Age	1.01***	1.01, 1.02	1.01***	1.00, 1.01
Male	0.45***	0.44, 0.47	0.44***	0.41, 0.48
Black	0.93	0.87, 1.00	1.01	0.85, 1.21
Hispanic	1.06	0.96, 1.16	1.02	0.86, 1.22
Other Race	1.23***	1.13, 1.35	1.03	0.86, 1.24
Unknown Race	0.87***	0.83, 0.91	0.89*	0.81, 0.99
Metropolitan	1.31***	1.26, 1.36	1.10*	1.01, 1.19
Nonmetropolitan Rural	0.99	0.90, 1.09	1.05	0.87, 1.25
Number of Moves	0.93**	0.88, 0.98	1.03	0.92, 1.16
Number of ER Visits	0.93***	0.92, 0.94	0.92***	0.88, 0.96
Number of Rx Drugs	1.12***	1.10, 1.13	1.11***	1.08, 1.14
Number of Chronic Conditions	1.10***	1.09, 1.12	1.10***	1.08, 1.13
Months of Coverage (6- 12)	1.27***	1.26, 1.29	1.29***	1.26, 1.32
Constant	0.02***	0.02, 0.02	1.29***	0.01, 0.02

Table 6 presents the results of the logistic regression models predicting completion of both the Wellness Exam and the Health Risk Assessment. Overall, with the exception of a major difference by gender, the results are fairly consistent between Wellness Plan members and Marketplace Choice Plan members. In both plans, each additional year of age was associated with 3% greater odds of completing both activities. Interestingly, although men were less likely to complete their HRA or their Wellness Exam when modeled separately, we find here that men in the Wellness Plan have 3% greater odds of completing both activities compared to women, while men in the Marketplace Choice Plan have 32% lower odds of completing both activities compared to women. Among Wellness Plan members, non-white race was associated with between 13 and 20% lower odds of completing both activities relative to whites. In the Marketplace Choice Plan, the only significant racial difference was seen among Hispanics, who had 29% lower odds of completing both activities compared to whites.

Compared to individuals living in non-metropolitan urban areas, individuals in metropolitan areas had higher odds of completing both activities, and the effects were larger among Wellness Plan members than Marketplace Choice members. In the Wellness Plan, residents of metropolitan areas had 53% higher odds of completing both activities, compared to those in non-metropolitan urban areas. In the Marketplace Choice Plan, residents of metropolitan areas had 18% higher odds of completing both activities compared to those in non-metropolitan urban areas. In the Wellness Plan only, individuals living in rural non-metropolitan areas

had 19% greater odds of completing both activities compared to those living in urban non-metropolitan areas. The number of times an individual moved from one county to another was not a significant predictor of completing both activities among Marketplace Choice Plan members, but each move was associated with a 16% reduction in the odds of completing both activities among Wellness Plan members. This figure is more than double the figures for completing either one of the activities separately, suggesting that the disruption of relocation makes it especially difficult to complete both activities in a year.

The proxy variables for health status include the number of annual emergency room visits, the average number of monthly prescription drugs taken, and the number of chronic health conditions. We find that each additional emergency room visit is associated with 9% lower odds of completing both activities for Wellness Plan members and 11% lower odds for Marketplace Choice Plan members. By contrast, each additional prescription drug is associated with a 10% and 11% increase in the odds of completing both activities among Wellness Plan and Marketplace Choice Plan members respectively, and each additional chronic condition is associated with a 9% increase in the odds of completing both activities among members of both plans. These results are very similar to those for the other two models, further indicating that individuals who have more frequent interactions with the healthcare system (as evidenced by having more chronic conditions and more prescriptions) will have more opportunities to be prompted to complete both their Wellness Exam and HRA, while those who are more reliant on the emergency room for their care are not completing these activities because they are more likely to be receiving fragmented care as opposed to patient-centered care.

Finally, we find that each additional month of coverage (beyond the 6 month minimum required for inclusion in our sample) is associated with 37% higher odds of completing both activities for Wellness Plan members and 42% higher odds of completing both activities for Marketplace Choice Plan members. Given findings from the prior two models that more time enrolled translates to a greater likelihood of completing each of the activities, it is to be expected that completing both activities will benefit from a greater length of enrollment in the program.

Table 6. Odds of Completing Wellness Exam and HRA Based on Insurance Plan

	Wellness Plan		Marketplace Choice	
	OR	95% CI	OR	95% CI
Age	1.03***	1.02, 1.03	1.03***	1.03, 1.04
Male	1.03***	0.59, 0.65	0.68***	0.60, 0.77
Black	0.80***	0.73, 0.88	0.96	0.72, 1.27
Hispanic	0.86*	0.76, 0.97	0.71*	0.52, 0.97
Other Race	0.82***	0.73, 0.93	0.93	0.69, 1.25
Unknown Race	0.87***	0.82, 0.92	0.89	0.76, 1.03
Metropolitan	1.53***	1.46, 1.61	1.18**	1.04, 1.33
Nonmetropolitan Rural	1.19**	1.06, 1.33	1.20	0.92, 1.57
Number of Moves	0.84***	0.79, 0.90	1.06	0.89, 1.26
Number of ER Visits	0.91***	0.89, 0.92	0.89***	0.83, 0.95
Number of Rx Drugs	1.10***	1.09, 1.12	1.11***	1.08, 1.15
Number of Chronic Conditions	1.09***	1.07, 1.10	1.09***	1.05, 1.13
Months of Coverage (6-12)	1.37***	1.35, 1.39	1.42***	1.36, 1.48
Constant	0.00***	0.00, 0.00	0.00***	0.00, 0.00

Conclusion

Overall, we find that the proportion of Wellness Plan and Marketplace Choice Plan members who are completing their Health Risk Assessment or Wellness Exam is much lower than expected. Moreover, the proportion of members who complete both activities, which is required to avoid paying a monthly premium in the following year is very low. According to our findings, approximately 83% of Wellness Plan members and 92% of Marketplace Choice Plan members failed to complete required Healthy Behaviors in 2014, and with the exception of certain low-income Wellness Plan members, should have been subject to paying premiums in 2015 based on their rates of compliance. Individuals who are younger, non-white, live in non-metropolitan areas, and visit the emergency room more often are especially at-risk of failing to complete the required activities. Future reports with data from 2015 should clarify whether these findings persist.

Clinic Manager Interviews

Methodology

Proposed methods and variations from the methods

In the original evaluation proposal, we had outlined interviewing health care providers in order to understand how much clinics know about the program, to understand how clinics might be encouraging the completion of healthy behaviors, and to understand how the healthy behaviors might be changing practices in the clinic. After informal discussions with health care providers, we determined that health care providers are often removed from the billing and logistic practices of clinics. Frequently providers are not aware of type of insurance a patient has. Clinic managers were identified as the people who most likely understand the programs and insurance of patients. Managers are often responsible for clinic processes as well. Through research we have conducted on clinic systems to encourage immunizations, we knew that clinic managers are very easy to access and willing to participate in surveys and interviews. The final change in this evaluation activity was related to the analysis. In the proposal, we had indicated that we would be using Grounded Theory for the analysis. Because so few clinic managers had detailed information and experience with the program, it was not appropriate to use Grounded Theory. The coding was closed, based on the interview protocol, the research questions and the hypotheses.

Sample draw

The sample of clinic managers was drawn based on the number of completed wellness exams and HRAs at a primary care clinic (family medicine and internal medicine). This information came from the Medicaid claims. We only included clinics which had at least 5 completed wellness exams, because we wanted to have clinics in the sample who had experience with the program. We also only included primary care clinics (family medicine and internal medicine). There were a total of 131 primary care clinics with 5 or more completed wellness exams for enrollees.

Interviews

The current study uses interviewing to collect qualitative information about the HBI program from clinic managers. The preliminary hypotheses provided an outline for the interview script. Some questions in the interview were designed to measure knowledge or awareness, for example: *Specifically thinking about the wellness exam- are you aware of what counts as a wellness exam?* Some questions were designed to measure the clinic's exposure to and experience with the HBI program; for example: *Can you tell me about the communication you have had with the Iowa Health and Wellness Plan?* The interview script included all elements of consent in the introduction, and offered a $10 gift card as an incentive to participate.

Before making contact with clinics over the telephone, all clinics in the sample were mailed an invitation to participate in the study. This letter notified clinics about the purpose of the research and upcoming telephone contact. Microsoft Access software was used to track and document calls.

A team of six interviewers completed a required training to ensure adequate familiarity with the HBI program and informed consent procedures. Interviewers were trained to use neutral language and prepared prompts when interacting with interviewees. To promote consistent interviewing styles across members of the team, interviewers were required to practice and record a mock interview. Interviewers were evaluated and given feedback about their performance from the project manager. This process was repeated as needed until the

project manager approved each interviewer to make telephone calls to clinics. The telephone interviews were audio recorded and then transcribed.

Coding

To interpret information collected from the clinic manager interviews, the responses were categorized and labeled, or coded. Coding the transcripts assists in the systematic identification and analysis of recurring themes across interviews. The coding process began with thorough readings of all the transcripts. Following the reading, codes were developed based on the interview protocol, research questions, and hypotheses. A codebook was developed with code definitions to describe relevant inclusion criteria for the transcribed narratives. For example, to document the interviewee's level of familiarity with the HBI program, the following criteria was used: *Respondent describes their understanding of HBI program--This includes the information itself, the **source** of information (IME, DHS, ACO, patients, supervisor) and **mode** of delivery (in-person, website, e-mails, ACO, seminar, conference, etc.)* Any information volunteered by the respondent that fit this criteria was coded as "Familiar with HBI."

The codebook also contained examples of interview text for each code. To ensure the code definitions were applied consistently, all members of the coding team interpreted the same set of transcripts. Coders read the transcripts and categorized content to the corresponding definition in a spreadsheet. Coded content was then compared across individual coders to ensure a common understanding of the parameters outlined in the code definitions. The PI of the current study reviewed the practice set of transcripts, then approved each individual member of the team to continue coding new transcripts with the same method. This method of cross-checking contributes to the reliability of qualitative coding with multiple coders.

Results

Of the 131 clinics in the sample, 52 clinics were interviewed. After removing ineligible clinics, the American Association for Public Opinion Research (AAPOR; https://www.aapor.org/) response rate was 49%, with a 71% cooperation rate. AAPOR sets the industry and academic standards for calculating response rates for surveys and polls.

Clinic characteristics

Table 7. Clinic Characteristics

	Respondents	Non-respondents	Sample Total
	N (%)	N (%)	N (%)
Clinic Location			
Rural	39 (75%)	65 (82%)	104 (79%)
Micropolitan*	4 (8%)	3 (4%)	7 (5%)
Metropolitan*	9 (17%)	11 (14%)	20 (15%)
Total	**52**	**79**	**131**

*Metropolitan and micropolitan areas defined by population standards set by the United States Census Bureau[1]

Table 7 illustrates responding and non-responding locations. No statistically significant differences were found in the number of well visits or HRA completed between those clinics that completed the interview and those that did not. The completion of HRA by clinics ranged from zero to 54. Of the 131 clinics sampled, 109 clinics completed zero Health Risk Assessments, accounting for an average of less than one (0.9) completed HRA per clinic. Of the 22 clinics that completed at least one HRA, the average was 5.5. The clinic sample excluded clinics who had four or fewer completed wellness exams, so the number of completed wellness exams at each clinic ranged from five to 221, accounting for a 21.5 average across the 131 clinic sample. A total of 52 interviews were completed and sorted into three groups based on the completeness and accuracy of clinic manager responses. One interview was excluded from analysis, since the clinic only provided obstetrics services. The remaining 51 interviews were categorized based on the content of the respondent's narratives.

Group 1 (19 respondents) Clinic managers who exhibited high levels of knowledge and familiarity with HBI program.

Reported high patient participation
Active enrollee recruitment and outreach
Answers to questions that measured knowledge were consistently accurate

Group 2 (22 respondents) Clinic managers who exhibited moderate or inconsistent levels of knowledge and familiarity with HBI program.

Demonstrated basic knowledge of the program, not familiar with details
Recalled accurate information for some components, and inaccurate information for others

Group 3 (10 respondents) Clinic managers who exhibited marginal levels of knowledge and familiarity with HBI program.

Responses related to Medicaid initiatives other than HBI. (IHH, SCHIP, IowaCare)
Inaccurate or partial responses to questions that measured knowledge
Unaware of clinic participation
Little to no experience with components of HBI program

For the research questions and hypotheses that require clinic managers to have awareness of the program, we only used the interviews from Group 1. Using interviews from the other groups would have provided inaccurate information. It is important to note that of the 19 interviews in Group 1, four of the clinic managers did not recognize the name of the program.

Question 4 *What are the effects of the program on health care providers?*

Hypothesis 4.1

Providers use the information from the Health Risk Assessment.

Measure 33 Provider reported use of HRA

33A Percent of providers who report using HRA

[1] http://www.census.gov/population/metro/about/

Protocol-Original

Data source-Provider survey, Provider in-depth interviews

Analyses-Qualitative

33B How providers use HRA

Protocol-Original

Data source- Provider survey, Provider in-depth interviews

Analyses-Qualitative

To assess measure 33A and 33B, clinic managers were asked *Can you tell me how, if at all, the information in the health risk assessment is used by your clinic? Can you provide a specific example?* Of the nineteen most knowledgeable clinic managers, six of them were not able to provide answers regarding the clinic's use information collected in the HRA. **Eleven respondents reported using information collected by the HRA to guide conversation in individual patient appointments, or storing the results with the patient's history file, although their descriptions lacked detail and it was hard to assess how much was actually happening.** Three respondents reported using the information from the HRA to recognize patterns in the general health care needs of the IHAWP patient population of the clinic. For example, one respondent said, "It's useful in that we can take this information, we see this person needs a physical…it helps us catch people that have maybe fallen through our cracks." [128] Two clinic managers mentioned referring patients who reported smoking cigarettes in the HRA to smoking cessation tools, specifically Quitline Iowa.

Hypothesis 4.2

Providers are encouraging patients to participate in behavior incentive programs.

Measure 34 Percent of providers reporting encouraging patients to participate

Protocol-Original

Data source-Survey, In-depth interviews

Analyses-qualitative

To assess measure 34, clinic managers were asked *Has your clinic done anything to promote this program to enrollees?* **Of the nineteen most knowledgeable clinic managers, six reported no efforts to promote the HBI program to IHAWP enrollees. The remaining 13 clinic managers reported promoting enrollee participation in the HBI program through one of three methods: phone calls, mailings, and in-person prompts**. Clinic managers often provided information explaining their reasoning behind their chosen strategies. For example, one clinic manager reported using only mailings, saying, "We did not call this year. Just because a lot of them have numbers that are disconnected. And they won't call you back. And it's kind of hard to explain all that in a voice mail." [121]

Clinic managers explained that promotion efforts were intended to inform enrollees about the program, prompt enrollees to schedule a wellness visit, encourage completion of the HRA outside the office, or to simply suggest contacting the clinic for more information. One clinic manager described the promotion efforts of the clinic's health coach, saying,

> She'll have a list of people who are on the Iowa Health and Wellness Plan and she'll go through and she'll look to see if they've had a, a wellness exam during the year. And if they haven't, she'll try calling

them to schedule that. I think we are allowed to try two calls and then a letter, um, during each quarter of the year....She also tries to call 'em to say, hey, there's this health risk assessment you can fill out, um, you know, which will be helpful to do before your appointment. And she even goes as far as, you know, let's say they have a physical scheduled at 10 a.m. that morning...She'll say, why don't you come into my office at 9:00 and I can help you do it, you know, if the patient doesn't have a computer.[194]

Hypothesis 4.3

Providers are receiving their additional reimbursement.

Measure 36 Percent of providers reporting reimbursement

Protocol-Original

Data source-Provider survey

Analyses-Process

To assess measure 36, clinic managers were asked *Has your clinic received incentives based on the percent of members that have completed the exam?* **Of the 19 most knowledgeable clinic managers, 13 were not aware of any receipt of incentives through the HBI program.** One clinic manager in this group said, "Do they go to the ACO? Or do they go to the clinic, we don't know that."[128] Three clinic managers reported some familiarity with the incentives, and described a lack of clarity concerning who receives the incentive money. For example, "I would guess any incentives we would have gotten would have come back through the [NAMED ACO], and I don't necessarily see what all shakes out through that"[123] and "I think so. Um, that's kind of handled at the corporate level... I don't know where we stand, um, as far as receiving 'em." [177]The remaining three clinic managers reported some certainty of their clinic receiving incentives for achieving a percentage of completed wellness exams. For example, one clinic manager said, "I think that we've received one. Um, and I think it's, like, um, 50 dollars or something like that."[195]

Hypothesis 4.4

Providers are more likely to use the HRA with Wellness Plan members compared to Marketplace Choice Plan members

Measure 37 Providers reporting using HRA

37B Providers reporting on using HRA

Protocol-Original

Data source-In-depth interview

Analyses-Qualitative analysis

There was not enough use of the HRA, nor understanding of the difference between Wellness Plan members and Marketplace Choice Plan members to provide evidence for this hypothesis.

Hypothesis 4.5

The HRA changes communication between the provider and patient.

Measure 38 Providers reported changes in communication with patients due to HRA

Changes in communication due to use of HRA

Protocol-Original

Data source-Provider in-depth interviews

Analyses-Qualitative

To assess measure 38, clinic managers were asked *Have there been any changes in patient-provider communication in using the health risk assessment?* **Of the 19 most knowledgeable clinic mangers, eight reported no change in communication, and three said they did not know.** One clinic manager attributed the lack of communication change to collecting redundant information, saying, "Probably not...No. 'Cuz it's stuff that would be covered anyway if they came in just for a, a wellness visit."[219] Eight clinic managers reported a positive change in patient provider communication with the addition of the HRA. One clinic manager describes improvements in relationships, saying

> People are just more willing to talk about things, it gets them to come back in more and, you know, then they're thankful that they were able to come in. I think once they know, like, they've done it and then we discuss it with 'em, they know that somebody cares. [121]

Another clinic manger describes the communication benefit of completing the HRA in a personal setting, saying, "Maybe they were in the privacy of their own home taking the Healthy Behaviors, um, there might have been a chance to be more honest. Answers were down on paper, and they didn't necessarily have to say some of those things." [195]

Hypothesis 4.6

The HRA changes provider treatment plans.

Measure 39 Provider reported changes in treatment plans due to HRA

Protocol-Original

Data source-Provider in-depth interviews

Analyses-Qualitative

To assess measure 39, clinic managers were asked *Have health risk assessments been used to inform treatment decisions?* **Of the nineteen most knowledgeable clinic managers, nine reported that only providers would know information related to treatment decisions. Ten clinic managers affirmed that the HRA was used to inform treatment decisions.** Some examples of the HRA being used to inform treatment decisions included high blood pressure and cholesterol treatment, pre-diabetic monitoring, smoking cessation options, sexual health, and referral to specialists. One clinic manager summed up the application of HRA information, saying, "Yes. If they see that there's a part of the assessment that the patient is needing help with, then we can reach out to services to help." [133]

Hypothesis 4.7

There are barriers to providers using the HRA information.

Measure 40 Provider reported barriers to using the HRA information

To assess measure 40, clinic managers were asked *What are the barriers for members to completing the health risk assessment?* In response to this question, four of the 19 most knowledgeable clinic managers reported no barriers. Eight clinic managers reported being unable to collect information from IHAWP members who lacked material resources like transportation, computers, internet access, or phones, resulting in low participation rates.

Clinic managers reported several factors that discouraged patients from completing the HRA, such as low health literacy, time commitment, lack of awareness, and low interest. One clinic manager reported, "they are often, um, not informed...They aren't aware, you know, they haven't even heard of it, um, I know we have an employee here that never received information on it. Um. And many of them don't have their own, um, computer….We haven't had that many participate, unfortunately." [143] Another clinic manager said, "I do think the risk assessment is way too long…When they start doin' it themselves they get sick of it and stop." [123]

Three clinic managers reported complications in tracking and linking HRA information, one said, "We were having troubles getting logged on to the system. And therefore the patients were not actually getting attached to our clinic, they were having to use that MBR11. Um, which was the code that they were to apply to use on the health risk assessment. Which means none of our patients initially were ever attached to our clinic. So it doesn't look like we did a lot." [195]

Protocol-Original

Data source-Provider in-depth interviews

Analyses-Qualitative

Findings from Groups 2 and 3

The majority of clinic manager interviews were categorized in Group 2 or 3 (n = 32). These groups represent clinic managers who did not demonstrate enough awareness or knowledge about the program to convince coders that the clinic managers actually knew about the program or the clinic managers indicated that they did not know anything about the program. These interviews were not used to answer the research questions and hypotheses proposed in the evaluation plan, but do provide us with some valuable information about program implementation. We collapsed Groups 2 and 3 and identified the following themes.

General lack of awareness and confusion about the program

This group of 32 clinic managers either had a vague idea about the Healthy Behaviors Incentive program or knew nothing about the program. **Most managers reported that they did not hear about this program from anyone.** Some clinic managers indicated that they remembered having read something about it or having heard about it during a meeting or conference. A few mentioned that they remembered something about the program that was covered at a rural health conference. One manager indicated that the clinic might have received information about the program. She stated, "I mean, I'm not saying that we didn't already have some information…We just hadn't had time to go through it." [113]

It was also very common for the clinic mangers to confuse the HBI program with other insurance and Medicaid programs. Some respondents believed they were aware of the HBI program, but their description of the program indicated that they actually were referring to another Medicaid program, such as the Integrated Health Home or Medicaid Health Home. For instance, one clinic manager said, "The Healthy Behaviors, um, are we talking about, like, they have a chronic disease? Or are we talking about the psychiatry part of it." [113]. Another manager said, "You know, I'm not really sure if I have. I think I, I mean, I think it sounds familiar, yeah. It that…does that involve like, like weight loss? Um, that sort of thing?" [132]

These respondents were not aware of the expanded definitions for well visits. A few of the respondents indicated that their billing staff might be more knowledgeable about these issues. One manager stated, "Like I

said, I'm not sure if our insurance would know that either. But I, after I do get off the phone with you. I'm gonna ask them. (laughing)" [222]

Most of the clinic managers had no awareness of incentives for providers to encourage the completion of the healthy behaviors. Some indicated that billing staff might be aware of this kind of information.

There were clinic managers who indicated that they were either new to the position or that program such as HBI were previously handled by staff that no longer worked at the clinic. They said that it might have been possible that someone else had known about this program and that information had not been conveyed to them. When asked how she might have learned about the program, a clinic manager stated,

> Um, just kind of from my, the office manager that was here before I was had, kind of mentioned it before she left. Um I'll be honest, I don't know if I have any formal, um, letter or anything that really stated the whole thing. I just remember her mentioning it and we do have a, we have a health coach that's here at our office and I know she has gotten some, has received some stuff about it but that, like I said, that's been, that's been a while ago. [170]

Of the clinic managers that were able to recall pieces of information or a vague awareness of a program like this, but not the name, those managers had often heard about the program from a patient asking a question or bringing their HBI information to the provider's office. When asked if the clinic manager was aware of HBI, the person said that had not received any information, but their patients told them about it. When asked if she had received any information she said, "Yeah, not that I'm aware of, that they were doin' this, um, but just patients callin' and sayin' that, oh I have a wellness exam, blah, blah, blah." [216]. Another manager indicated, "'cuz I think, if anything, we were, who were we talking to? We just had a meeting and I remember that coming up. Because somebody mentioned something. Um. Maybe it was a patient." [111]

Some clinic managers mentioned that they had very few patients who were insured through IHAWP; therefore they did not know much about the program. A few clinic managers indicated that they did not believe any of their IHAWP patients paid contributions, so they did not believe this program applied to them. When the interview explained the HBI program and asked if the program sounded familiar one clinic manager said no and explained "But let me tell you the reason why, to us, it probably doesn't apply too much. We, they, they don't pay a premium, our patient population….they don't pay any type of premium…they don't pay copays or anything like that." [169] One clinic manager insisted they had not signed up to participate in the HBI and would not sign up in the future. She said, "…if they [patients] have any questions as far as wanting to get in, and I'm not going to discourage them from applying for it because we are not partaking in it." [124]

Changing Medicaid programs

Some managers indicated that it was difficult to keep up with Medicaid changes. One manager pointed to the perception that programs were constantly changing at Medicaid. The manager stated, "But as things change, I mean, I mean, you guys are change-or whatever Iowa Medicaid is changing over, Magellan, all that kind of stuff is changing, so. I mean things are always changing." [161]. Another manager said, "I personally think it's, um, can be confusing with the switching from month-to-month." [127].

One individual said that the current changes in Medicaid might mean that this program would be discontinued, so they were unmotivated to find out more information. After a manager indicated that he/she did not know about the HBI, the interviewer provided a brief description, and the managers response was "Does this one stay around or is that one wiped off the map too when Medicaid has, you know, has it, it's already selected four, um insurances to, er managed care organizations or whatever." [127]

Outreach to patients about program

Although these managers did not understand enough about the HBI to be included in the findings above, there were still outreach efforts done by clinics that might lead to the completion of a wellness exam. These respondents did indicate some efforts to do outreach to their patients about well-exams but these efforts were not because they were conscious of the program and wanted to encourage participation, but because it was standard practice to do some type of reminder (call, letter, and postcard) for all patients.

Communication with Medicaid/IME/DHS

The majority of these clinic managers reported that their communication with Medicaid/IME/DHS was positive. Telephone calls to Medicaid resulted in satisfactory answers. Often members used the website as their first option for finding answers to their questions. None of the clinic managers indicated that their communication with the state was specifically about the HBI. Most of their communication was related to claims.

Interest in learning more about the program

After hearing the interviewer describe the HBI program some clinic managers were interested in more information. A few clinic managers were going to check with other clinic staff to see if they had awareness of the program. Others indicated they would look at the website or call Medicaid to find out more information. One manager said, "But, I feel like I need to read up on this more now, after talking to you!(laughing)" [113] One clinic manager indicate that there might be better ways for Medicaid to communicate with clinics. The manager said,

> …maybe having a representative come out and explain to you either the additional benefits now that these patients will have these are the that you could give them, offer them services that are covered benefits for'em, that type of thing. …I think they get so much paperwork and stuff, it probably gets set aside. Whereas if you had an actual representative here, it might be more useful. [158]

Most of the clinic managers did not indicate that they would follow up with any sources to find out more information.

Member Interviews

Methodology

Adjustments were made to the study design in the original evaluation proposal to account for the smaller than expected rates of completed wellness exams and HRAs. In addition, results from the clinic manager interviews suggested that there was a general lack of awareness about the program, so we believed that it was important to talk to more members to find those who are very aware of the program. Note: There were no expanded healthy behaviors in the program, so we could not ask about completion of these.

The sample was drawn from IHWAP enrollees whose ages were 19-64 as of August 14, 2015 with a valid telephone number and mailing address, who had been in the program at least 6 months. The sample was pulled in four groups: those who had completed only the HRA, those who had completed only the wellness exam, those who had completed both, and those who had not completed either. Each group was drawn to have an equal number of enrollees who identified as being black, Hispanic and white. Each group also contained roughly equal numbers of men and women." We oversampled for enrollees who identified as black or Hispanic in order to ensure that we had completed interviews from the most diverse sample possible.

A team of nine interviewers completed a training session to ensure adequate familiarity with the HBI program, the IHAWP, informed consent procedures, and the interview script. HIPPA training was also completed by all interviewers. Interviewers were trained to use neutral, non-leading language and prepared prompts when interacting with interviewees. To promote consistent interviewing styles across members of the team, interviewers were required to practice and record mock interviews. Interviewers were evaluated and given feedback about their performance from the project manager. This process was repeated as needed until the project manager approved each interviewer to make telephone calls to enrollees.

A total of 468 IHWAP enrollees were sent a letter explaining the study and inviting the enrollee to participate. The letter included the telephone number on record for the enrollee and a tear-off form for enrollees to send back to provide us their current/preferred phone number where they could be reached. A business reply envelope was also included for the enrollee to return the form at no cost. Trained interviewers called the sample in a random order. No more than 10 attempts were made to each enrollee. The attempts were made on rotating times and days between the hours of 9 a.m. and 8 p.m. on weekdays, 10 a.m. to 6 p.m. on Saturday and 12 to 5 p.m. on Sunday. The interviews ranged between 5 and 51 minutes. Microsoft Access software was used to track and document call disposition (see Table 8)

The interview script included all elements of consent in the introduction. Enrollees were offered a $25 gift card to their choice of Wal-Mart, Target, or Casey's for completing the interview. A language interpreting service, CyraCom, specializing in interpretation and translation of healthcare related contexts was used for non-English speaking enrollees. Additionally, one of the interviewers, a native Spanish speaker, conducted 5 interviews in Spanish. All interviews were recorded and transcribed.

A total of 152 interviews were completed for a response rate of 46%. Of the 152 interviews, 85 were women and 76 were men. Their ages ranged from 19 to 64 based on ages calculated from birth dates available in the Medicaid claims data (M= 41.84, SD = 13.51). Thirty-six percent of the respondents were categorized at 0% FPL, 8.6% at 1-50% FPL, 51%-100% was 30.3%, 21.1% were in 101%-133%, and 3.9% were over 134% FPL. According to Medicaid claims data 36.8% identified as white, 32.9% as African American/Black, and 30.3% as Hispanic.

The interview protocol consisted of open-ended questions related to enrollees experience with IHWAP and their awareness and experience with the Healthy Behaviors Program. The preliminary hypotheses about the program provided an outline for the interview script. Some questions in the interview were designed to capture the general importance of health insurance and preventive care. For example, *How important is it for you to have health insurance coverage and How important is getting regular check-ups to you?* Certain questions in the interview were designed to measure knowledge and awareness of the HBI program and its components, for example, *Have you gotten a checkup/wellness exam since you have been on this new insurance? Tell me a little bit about what happened during this exam? And did you know about the health risk assessment?* Other questions were designed to measure where and how enrollees are obtaining information about the program, *Have you received any information about getting a wellness exam- who was it from and what do you remember it saying?* Additional questions attempted to gather data about the enrollee's experience with the HBI program as well as barriers/facilitators to completion of the components. For example, *Was there something that made it [health risk assessment/Assess My Health] easy to complete? What?*

We looked for differences between those that responded and those that did not. There were no statistically significant differences between the respondent and non-respondents related to percent federal poverty level, number of well visits completed as determined by Medicaid claims data, no difference between the groups in whether the enrollees were from Marketplace Choice or Iowa Wellness Plan. There were also no differences in race/ethnicity between the respondents and non-respondents. Respondents were more likely to have completed an HRA as measured by the HBI dataset from 3M. The mean age of respondents (M = 41.84, SD = 13.51) was slightly older than the mean age of non-respondents (M = 37.72 years, SD= 13.41). Non-respondents were more likely to be male.

Table 8. Sample Disposition

	Frequency	Valid Percent
Answering Machine/Voicemail	58	12.4
Busy Signal	5	1.1
Callback	63	13.5
Completed Interview	152	32.5
Disconnected Number	66	14.1
Incarcerated	2	0.4
Ineligible	3	0.6
No Answer	10	2.1
Other Problem Number	1	0.2
Out of State	3	0.6
Refused	39	8.3
Unreachable	6	1.3
Wrong Number/No Such Person	60	12.8
Total	468	100.0

Coding

To interpret data collected from the in-depth enrollee interviews, the responses were categorized and labeled, or coded. Coding the transcripts assists in the systematic identification and analysis of recurring themes across

interviews. The coding process began with thorough readings of all transcripts by the PI and a member of the research team. Following the reading, codes were developed based on the interview protocol, research questions, and hypotheses. A preliminary codebook was developed based on information gathered from the interview transcripts. Code definitions and examples were developed to describe relevant inclusion criteria for the transcribed narratives. For instance, to document the respondent's understanding of the *importance of having health insurance (HI)*, the following criteria was used*: Apply this code when the respondent identifies that having health insurance is important because of cost, because it helps them manage a current health concern (chronic or acute) or because the respondent received education or knowledge that benefits their health. Importance was further defined as capturing more conceptual ideas provided by the enrollee versus benefits which includes more tangible things.* Any information provided by the respondent that fit this criteria was coded as "Importance of having HI."

To ensure the code definitions were applied consistently, all members of the coding team met to review, discuss and amend this codebook. Eight coders participated in this initial meeting. Inter coder reliability was established by having each member of the coding team interpret and code the same three interview transcripts. To code, coders read the transcripts and categorized applicable content to the corresponding definition into a standardized spreadsheet that was provided to all coders. Coded content from these three interviews were then compared across individual coders to ensure a common understanding of the parameters outlined in the code definitions. The codebook was further refined and additional training of coders was completed before each individual member of the coding team was approved to continue coding new transcripts. Ultimately, seven trained coders participated in the final coding process. This method of cross-checking further contributes to the reliability of qualitative coding with multiple coders.

A total of 146 interviews were coded. The uncoded interviews were the interviews conducted in Spanish. The transcription and translation of these interviews is currently being finished and have not been included in the current report.

Results

According the Medicaid administrative data, 61.8% had completed an HRA at some time during their enrollment and 56.6% had completed a well visit at some time during their enrollment. We wanted to ensure that we were interviewing enrollees who had completed the healthy behaviors and those that had not. From the respondents 26.3% had only completed the HRA, 21.1% had only completed a well visit, 35.5% had completed both the well visit and the HRA, and 17.1% had completed neither healthy behavior. Based on the Medicaid administrative data, 76.3% of the interviewed enrollees were in the Iowa Wellness Plan (IWP) and 23.7% were in Marketplace Choice (MPC).

Note for the results below, the study ID is included after the respondents' quotes.

Hypothesis 7.4

Members (WP/MPC) understand the logistics (for example- payment, payment options, requirements of the program, …) of the HBI program.

Measure 50 Members' knowledge of requirements of program

Protocol-Original measure

Data source-In-depth Interviews and Consumer survey

Analyses-Qualitative analysis and Frequencies

To assess measure 50, The HBI program requirements of receiving a wellness exam and completing a health risk assessment were described and interviewees were asked if they knew anything about the program. **Seven out of thirty-five interviewees enrolled in Marketplace Choice appeared to be aware of the HBI's requirements when described while twenty-seven stated they were not familiar with the HBI's requirements and one did not provide an answer.** One Marketplace Choice member stated that they were aware of the program through a letter from DHS "Interviewer: Ok. And do you remember what the information on the letter said from DHS? Interviewee: Just to, if, to get those two things done so you don't have to get the fees every month or whatever" [1021], while another reported that their clinic informed them of the program "Yes. I have, yes. I've gotta look for that at home, 'Cuz when I made my appointment the doctor told me to, his nurse told me to bring that in, that information so they could submit it" [3064].

Thirty-four out of one hundred eleven interviewees enrolled in the Iowa Wellness Plan appeared to be aware of the HBI's requirements. One interviewee recalled receiving information regarding the requirements of HBI when he was enrolled stating, "Yeah I knew that part… it actually came in the, when I first got the insurance and it came with a welcome packet and all the information. That was actually in there" [3051]. Interviewees from both plans who identified they were aware of the program requirements stated this information came through introductory materials from when they enrolled in the program, mailings, or being told by their clinician or other clinic staff.

Quotes from Marketplace Choice members:

- Yes. And I've done those…I haven't heard really anything. I did both the assessment and the physical, that's all I heard. [3001]

Quotes from Iowa Wellness Plan members:

- Yeah, I got the letter in the mail last year. And it's my fault I didn't get it done. But I did get the information that you have to have it done, the questionnaire and the wellness exam by January 12. So that you won't get charged. Yeah I got all the information, I just didn't do it. Which was my fault. [1085]
- Yep. It does. So 2014 and then this year, I've filled out the health assessment. I made a checkup last year, but I have not had a checkup this year yet. I know that's one of the requirements to maintain the insurance (inaudible). [3061]
- I think they told me that when I first got it, in the pamphlet. [3091]
- They actually, they helped me filled somethin' out online. It was somethin' new, I think, and they wanted everybody that had that insurance to sign up for it 'cuz, I guess it's, go in for a checkup every... year or somethin', you know, havin' to come in and do a checkup so you can stay on, stay with the insurance and they can keep up with your information.[3072]
- I believe I have heard of it, yes...I don't remember where I heard it or from where it was or the time. All I know is that I have this program and I don't pay anything. I'd rather keep it like this, and I wouldn't change it for anything else, you know. [1066]

Measure 51 Members' knowledge of payment process

Protocol-Original measure

Data source-In-depth Interviews and Consumer survey

Analyses-Qualitative analysis and Frequencies

To assess measure 51, Interviewees were asked *Have you ever received an invoice or bill for monthly premiums or contributions?* **Nineteen MPC members and 86 IWP reported never receiving an invoice for monthly premiums/contributions or did not believe they had. Thirty of these interviewees stated that they did not know why they did not received an invoice or bill for monthly premiums or contributions, nineteen stated it was due to their low income, and sixteen stated it was because of the insurance plan they were covered by.** Thirty interviewees who had received an invoice or bill for premiums simply acknowledged the receipt of an invoice and reported that payment was made without issue, or that the invoice or bill had been received in error. Eighteen interviewees enrolled in the Marketplace Choice and 76 interviewees enrolled in the Iowa Wellness Plan responded that it was important or beneficial to have a way to avoid paying monthly premiums with many stating their belief was due to financial constraints. Enrollees did not report problems with paying premiums but some did acknowledge confusion with the receipt of bills for services that were not covered by their insurance plan.

Quotes from Marketplace Choice members:

- Correct. I pay it monthly. And my understanding is, it gets taken off of my taxes. I will find that out this year when I file my taxes. [4023]
- Yes I have and I pay that, 10 dollars a month. Sometimes I let it go for two months and then I send 'em two months at a time. But yeah, I get a bill every month and I send the 10 dollars in. [1016]
- I did and yeah they sent me something for like, 5 dollar thing. But it is. Lately they haven't been sending me any. But normally they do. Maybe once a month [3077]
- I just recently got one, and it's for only, like, 10 dollars. So I'm not quite for sure how it works. [1021]
- No, like would that, I would have to pay?...well yes. Right now I'm paying 10 dollars a month. To be honest with you I don't think that's that much, you know as a matter of fact I think that's pretty free. [2049]

Quotes from Iowa Wellness Plan members:

- Yes ma'am I just get a bill once a month for 5 dollars, just send it in to 'em. [1061]
- I started to receive these actually. And it was just last month, it was a 5-dollar... membership due, if you will, that's, kind of, what they were calling it. And then you could always opt, if you were financially not able to pay that amount. [1004]
- I would like to do those [healthy behaviors] and not pay. Because I don't have money and I'm not working. [1096]
- Yeah I think that's good, yeah. I can pay it, I can pay it or I can do the assessment, it, it works either way, you know, I could pay it or I can do the assessment. [2017]
- It is. Yes it is. 'Cuz like you know, like I said, I don't have, I barely make it, let me put it that way. So yeah I am glad there was ways to avoid [paying a contribution] yeah. Not because I'm stingy, I just simply don't have the money. [3062]
- Yes. It is. Very beneficial. Because it, it saves a LOT of money at the end of the day. And it's also, it forces me to check, before a checkup, to make sure I'm doing fine. So it, it works for me on both ends. [3071]

Hypothesis 7.5

Members (WP/MPC) understand the purpose of HBI and how it is supposed to influence their behavior.

Measure 52 Members' knowledge of purpose of HBI program

Protocol-Original measure

Data source-In-depth Interviews and Consumer survey

Analyses-Qualitative analysis and Frequencies

To assess measure 52, interviewees were probed *Why do you think your health plan is encouraging people to get check-ups/annual exams? What about health risk assessments?* **Interviewees enrolled in both Marketplace Choice plans and the Iowa Wellness plan identified preventive care, identifying current and future healthcare issues, general health promotion, encouraging annual checkups, and lowering healthcare costs in the long term as reasons health plans are encouraging individuals to participate the HBI program.** Preventative care and lowering healthcare costs were the most common responses among all interviewees.

Quotes from Marketplace Choice members:

- I think it's important to get annual exams. I mean, there's underlying health issues that a lot of people don't realize they have. That need to be addressed. And. So. I think that's very important to have an annual exam. I think it makes 'em think more in depthly about their health. And, you know, why they should or shouldn't have health insurance. And, 'cuz they ask, it asks good questions about you and makes ya think about it. [3001]

Quotes from Iowa Wellness Plan members:

- Well, maybe they, it's to head off any problems, you know. Catching things early. And, you know, for your own betterment and. [1079]
- Well I imagine it's because of the increase in illnesses like diabetes and cancer. Now, I don't know if we're seeing it more often or if before people just didn't notice. So I'm guessing that now they want people to be able to detect all of that sooner and to be able to get treatment sooner, to be able to fight it off. [2002]
- Well I think if we stay on top of things, then that keeps health costs down. [3101]
- Just to make sure they're healthy, and that they're not covering things that could be prevented. [4103]
- One, because preventative care, you know, is one, life-saving. It's money-saving. And, you know, people need to be aware and, you know, take (very) care for themselves. [3010]
- To avoid any major problems like, for example the mammogram that prevents your or they do an early (detention) of cancer, so. [3066]

Measure 53 Members' understanding of how the program influences behavior

Protocol-Original measure

Data source-In-depth Interviews and Consumer survey

Analyses-Qualitative analysis and Frequencies

To assess measure 53, Interviewees were asked *What do you think the benefits are to getting regular check-ups?* and *What do you think are the benefits from completing this assessment?* **Interviewees enrolled in Marketplace Choice**

stated that participating in the program made them consider health and lifestyle decisions that they may not have previously. Interviewees enrolled in the Wellness Plan also mentioned that participation lead them to consider health and lifestyle decision with some specifically mentioning diet and exercise as examples of area that could be improved. A common sentiment among the responses was that participation raised awareness and stimulated action towards healthier decision and lifestyle. Many interviewees from both the Marketplace Choice and Iowa Wellness Plan did not comment on any changed in their behavior or how enrollment in the program influenced did or could influence their behavior.

Quotes from Marketplace Choice members:

- Just to be healthy and stay healthy...You know, and if they, and then if there's, something is wrong, you know, they're gonna let me know I'm sure and I could rectify the situation. [1016]
- Well, that way I know what's going on with my health. And I can get help from my doctor, you know, if something is wrong...I wanna stay healthy. I don't like being sick, it's just not like me to be sick. I haven't been sick in seven or eight years. [1016]
- Where there's stuff that sometimes you don't think of as a daily basic of your health and stuff so sometimes I think it would be good to learn. Or, to understand other stuff, so. I think it's a benefit and plus if they're willing to pay the premium for the year, that's even better too! [4002]

Quotes from Iowa Wellness Plan members:

- You could use whatever you said was like a way to improve your opinion on your own health and actually take action on that. And actually improve your health (laughing) instead of just thinking about it.[3053]
- Well, some of the benefits is that you really have to get on top of your health. Like if you have a problem with your heart or high blood pressure, it could be your weight, you know. If you have any diabetes and then your, they look for it, you know, the blood glucose. And stuff like that. It's pretty important. [1106]
- Basically, you know, you go in and you talk to your doctors. They tell you what you should and shouldn't be doin', what you should and shouldn't be eatin'...You know, things like that.
- It has. I don't know, it made me stop and think about my lifestyles. (laughing). [1007]

Hypothesis 7.6

Members (WP/MPC) do not report difficulties paying premiums related to payment form accepted by IME.

Measure 54 Members' experience with premium payment mechanism

Protocol-Original measure

Data source-In-depth Interviews and Consumer survey

Analyses-Qualitative analysis and Frequencies

To assess measure 54, the thirteen and sixteen interviewees enrolled in the Marketplace Choice and Iowa Wellness Plan respectively who had reported receiving an invoice or bill for monthly premiums or contributions were asked *How does this work? Can you tell me a little about this?* **The majority of interviewees who reported paying premiums did not state any difficulties with submitting payment for the premiums.** One interviewee enrolled in a Marketplace Choice plan stated that there were issues with not paying his

premium and losing his coverage saying "Yes, yes and I did. …did everything they said that's supposed to be done, so they're still sayin' I didn't do it, pay this, the monthly 10 dollars... And so, ok we'll, it's we get in contact with you and I don't think they never contacted me. Next thing I know, I had a dentist appointment yesterday. He was tellin' me that, not yesterday, the day before yesterday on the (first), they was tellin' me that I'm cut off. Like they don't have me." [3022].

Quotes from Marketplace Choice members:

- Correct. I pay it monthly. And my understanding is, it gets taken off of my taxes. I will find that out this year when I file my taxes [4023]
- Yes I have and I pay that, 10 dollars a month. Sometimes I let it go for two months and then I send 'em two months at a time. But yeah, I get a bill every month and I send the 10 dollars in. [1016]
- Oh yes. I pay, actually, 10 dollars every month. [1088]
- No, like, would, would that, that I would have to pay?... Well yes. Right now I'm paying 10 dollars a month. To be honest with you I, I don't think that's that much, you know as a matter of fact I think that's pretty free. [2049]

Quotes from Iowa Wellness Plan members:

- Yes ma'am I have. I just, I get a bill once a month for 5 dollars, just send it in to 'em. [1061]
- I started to receive these actually. And it was just last month, it was a 5-dollar... membership due, if you will, that's what they were calling it. And then you could always opt, if you were financially not able to pay that amount. [1004]
- I did. But they were not expensive. I think I paid, like, six months of 'em right upfront. It was like, really? That's all it's gonna be? Ok well here's a check. (laughing) [4054]
- I believe they ask you for 5 dollars a month to contribute but if you can't for financial hardships then you elect that also. Which I actually have tried to do and sent that back to them two times but they keep sending me the same invoice, you know, saying that I owe 5 dollars and that I can't do it for previous months that I was billed for I guess, I don't know. [2117]

Other analysis based on coding

This qualitative data collection also provided in-depth information about other aspects of the HBI program such as barriers to completing the HBI requirements. We have included descriptive analysis and outlined basic themes we have found to provide more context for understanding this population and the program implementation.

Barriers to Completing HBI Requirements

To assess the barriers to completing the wellness exam, interviewees were asked *How easy or difficult was it to get in for a check-up?, Did you have any challenges? [PROBE: scheduling, finding doctor, other things],* and *what about challenges with transportation? Did you have any trouble getting transportation to or from a wellness exam?* To assess the barriers to completing the health risk assessment, interviewees were asked *Were there challenges to completing this? [PROBE: no internet access, no time, did not understand, other things].*

These responses represent those enrollees who knew about the HRA and wellness exam. Enrollees who did not know about the HBI could not answer questions about barriers to completing the HBI requirements.

Overall the majority of interviewees responding to these questions did not experience challenges to completing either of the HBI program's requirements, but that did not correspond to high completion rates for wellness exams and/or the HRA.

Challenges to completing a wellness exam include lack of appointment availability, scheduling issues, lack of time to complete appointments, current providers not accepting their insurance, and lack of transportation. Challenges to completing the health risk assessment include, lack of Internet access or a computer, poor communication regarding the assessment and how to access it with their personal identification number, issues with submitting the assessment to the clinic, poor communication regarding the assessment and the length of the assessment

Quotes from Marketplace Choice and Iowa Wellness Plan members:

- Yes I didn't have a license so it was hard for me to get a ride but I took the bus. [3059]
- I've just been busy with all my other doctors (laughing) that, it's hard to schedule right now. [2033]
- The local doctors are pretty busy. So it was, you know, a couple weeks, probably, to get an appointment. Other than that, no. [3090]
- I don't have internet access besides my phone and doin' stuff on the phone takes forever [2013]
- Actually I did try once to do it on the internet but they were asking for some code and so I called them back to get the code to put in to do the assessment test. And I just never went back to do it [4002]
- Well I had to call a few numbers to get my PIN number or something…I had no idea what that was. Yeah. [1015]
- It [the HRA] was LONG. (laughing) I do remember that. [2050]

Facilitators to Completing HBI Requirements

To assess the facilitators to completing the wellness exam, interviewees were asked *How easy or difficult was it to get in for a check-up?* To assess the facilitators to completing the health risk assessment, interviewees were asked *Was there something that made it easy to complete? What?* Only enrollees who reported having a wellness exam and/or completing an HRA were asked about the factors that facilitated them meeting these requirements.

Interviewees listed the clinic being accommodating with scheduling an appointment, having quick appointments, and having a referral as factors that facilitated competing the wellness exam. Interviewees reported having an online version of the HRA, clear instructions, clear and easy to comprehend questions, having clinicians assist with the assessment, having a computer and internet access, being able to complete the HRA on their own time, and having a room at the clinic set up to complete the HRA as facilitators to competing the HRA.

Quotes from Marketplace Choice and Iowa Wellness Plan members:

- No it [getting an appointment for a wellness exam] was easy. I mean she's usually busy but she got me in the next week. So it was, I didn't have to wait long. [2086]
- Like I said I mean they're great, their times, I mean, it fits my schedule. If not they'll work for you. [4027]
- Nope. They [clinic staff] explained it [the HRA] well. Yeah, 'cuz they read the questions to me and all I had to do was give an answer. [3039]

- It [the HRA] was very, I wanna say it was well worded, it was easy to read, easy to comprehend. There wasn't anything that, you know, you had to go find a form or anything, it was all readily available information that you could produce easily. [3052]
- It [the HRA] was just pretty much straightforward questions, I mean. There wasn't nothin', no complicated questions or anything to it. [1061]
- The help from the doctor was awesome. And actually doing it [the HRA] online was a lot quicker. 'Cuz sometimes through the phone, stuff doesn't go right, so. Having the chance to do it online made it a LOT easier. [3051]

Benefits of Completing HBI Requirements

To assess the perceived benefits of completing the requirements of the HBI program, interviewees were asked *What do you think the benefits are to getting regular check-ups?* And *What do you think are the benefits from completing this assessment?*

For interviewees identifying unknown health issues and beginning treatment, maintaining a healthy lifestyle, maintaining treatment for chronic diseases, and peace of mind regarding health were stated as being benefits of completing a wellness exam. Providing a more complete picture of your life and health to your health care providers was stated as the main benefit of completing a health risk assessment, as well as identifying risk factors and areas to improve, and reducing premium costs.

Quotes from Marketplace Choice and Iowa Wellness Plan members:

- I think it's good that, you know, to get a checkup because, like I said, there's things that you might not realize that you have health-wise. Health problems. And the doctor can discover those and address those and treat 'em. You know. [3001]
- It [HRA] informs your health care provider. Everything there is to know about you. [2038]
- It's better to get checkups and you know what's wrong than wait until you can't do anything about it. You know, get the medicine that you need and be aware of what you're dealing with is (inaudible) and stuff so that you can stay healthy. [3070]

Sources and Quality of Information Regarding HBI

To assess the sources of information interviewees were asked *Have you received any information about getting a wellness exam/check-up?* and *Have you received any information about doing a health risk assessment or something called Assess My Health?* If the interviewee answered yes, they were further probed *Who was it from?, What do you remember that it said?, and Did the information you received make you think about completing a wellness exam/health risk assessment?*

Fourteen interviewees enrolled in Marketplace Choice reported receiving some form of communication regarding completing the HBI requirements while twenty did not. Sources of information include the interviewee's clinic, the Department of Human Services, and the Iowa Health and Wellness Plan. Communications were through mailings, phone calls, and in-person conversations from clinicians. **Sixty-one interviewees enrolled in the Iowa Wellness Plan reported some form of communication regarding completing the HBI requirements while fifty did not.** Sources of information include the interviewee's clinic, the Department of Human Services, the Iowa Health and Wellness Plan. Communications were through

mailings, emails, phone calls, introductory materials given when enrolled, and in-person conversations from clinicians.

The most commonly stated sources of information for interviewees were from their insurance plans and from their clinicians and the most common form of communication was mailings, whether from a clinic or their insurance. Despite this communication, there were still large amounts of confusion regarding the insurance plan. Only 42% of interviewees enrolled in either plan expressed that they understood how their insurance works and only 40% expressed familiarity with the healthy behaviors incentive program.

Quotes from Marketplace Choice members:

- You know. I do remember when I first got Coventry, they said if you complete an assessment online. That, I think, it would reduce my insurance premium. And so I, the first thing I did was complete that assessment and I think it did help lower those rates. [1088]
- I didn't. They [doctor's office] just said they had to have, they had to do it for my insurance. [3039]
- I believe through the Iowa Wellness Plan. Just basically that they wanted you to fill it out for risk factors and stuff like that…They sent it in with our annual renewal. [3104]

Quotes from Iowa Wellness Plan members:

- Well, I think it was through the Iowa Wellness. I don't remember it word-for-word. But I know it said that I needed to go in and get a physical exam and then have my doctor fill out the papers that came with it. [1013]
- Because I received it in the mail saying that I needed to go online and do this questionnaire thing. And then it said afterwards, it said that I needed to fill out the form or somethin' and take it to my assigned physical for the wellness exam. Which I, that part I never did do. [1061]
- Just talkin' to my primary care physician and he said it would be a good idea so. I had time and he had time so I did it. [1072]

Previous Unmet Needs

To assess previous unmet needs, responses in the interview relating previous issues with health care coverage or the lack of coverage were coded together under Past history of insurance/lack of. **Three interviewees enrolled in the Marketplace Choice and sixteen interviewees enrolled in the Iowa Wellness Plan reported experiences in the past dealing with inadequate, expensive or no coverage.** Financial burden due to paying for services or medication out of pocket was a common theme among responses and included not utilizing medical services because of a lack of insurance coverage.

Quotes from Marketplace Choice members:

- I lost my job at Blue Cross Blue Shield after 27 years and. Yeah, it was really devastating. And they did, you know, provide insurance for a short time. And then I was fortunate enough to get on to Medicaid. Eventually. Yeah, it's so vital for me. Although I consider myself healthy. And you know, I, you just never know what might come up. [1088]
- You know it's way easier than. 'Cuz I remember one time, through the time I didn't have Medicaid, and I actually had to pay the full amount and, I mean, it was over a hundred dollars. Pretty expensive. I mean, I couldn't pay that, I had to have my parents help me, so But. I mean it helps. You know, 'cuz I can pay, like, 20, 30 dollars. [2086]

Quotes from Iowa Wellness Plan members:

- I have had, in the past, where I have insurance but my deductibles and my copays were so high, I just couldn't go. To the doctor. Or I was scared that, with different tests that were going on, and saw, I had a huge doctor bill once, even when I did have insurance. And so, just in my financial situation right now, having that peace of mind that I can go to the doctor and I'm ok and I'll be able to afford it. [1004]
- Interviewer: Ok. And do you regularly get checkups? Like, every year or how often?
  Interviewee: No because I've never had the insurance so, like, I really don't go. (laughing) 'Cuz I don't have the money to pay for it. [1065]
- Well it's been hard for me, it was, for the longest time I was not able to see a doctor or get medicine because I have no insurance and whatever, I didn't qualify for it but. [3106]
- Like, I used to have medicine that was very expensive and now I pay, like, 15 dollars a month for that. And I don't mind that. [3108]
- Interviewer: Ok. So is that, sort, is getting checkups important to you at all?
  Female Interviewee: Yeah. Since all sort of things run in my family…But I just never have before, 'cuz I never had insurance before and it's been expensive. [1015]
- I just went in, once I got the insurance I just called and, well I was told before I got insurance they couldn't help me 'til I got insurance...So. I just let everything lax. Blood pressure and everything and she said, once you get insurance we'll be able to help you. And once I got on insurance, they would help me! [3026]
- It's actually been. You know for a long time it was havin' to pay money out of pocket to go to the doctor...And it was like, I wouldn't go to the doctor because I didn't have the money. Or, you know, I could wait 'til something was seriously wrong, then I ended up in the emergency room...And then I'd have a huge bill that I'd have to pay off little by little. And then I couldn't afford my meds anyway. [3043]

Current Unmet Needs

To assess current unmet needs, interviewees were asked *Tell me a little bit about your experience with this health plan* and negative experiences and other problems encountered with the insurance were coded together. **Six interviewees enrolled in the Marketplace Choice plans and thirty-four interviewees enrolled in the Iowa Wellness plan reported negative experience while enrolled in their current insurance plan.** Interviewees listed costs, lack of choice in providers, receiving generic medication instead of preferred brands, and limited coverage for certain medical needs such a dental or vision services as unmet or unsatisfactory experience with their insurance coverage.

Quotes from Marketplace Choice members:

- Didn't realize I was gonna get a 186 dollar bill. I just got that a couple weeks ago. Uh-uh. I thought it was 100 percent covered. I don't even know what it's for, what, if it was for x-rays or the surgeon or. I don't know what it was for. I put it in my pile, we'll try to pay soon. [3013]
- Well you know what, there is some doctors that won't accept it, and I think they should. [3112]

- I guess the only time was when I had to renew it. But that was because I moved. And I forgot to update them about my new address. But even when I had to re-fill out the sheet to renew, I mean, it still went through fast. So I was pretty surprised. [2086]

Quotes from Iowa Wellness Plan members:

- I really can't think of anything that I have troubles with except for I have a, a large hernia. And we were trying to get a CT scan scheduled to see if I had incarcerated hernia or, there was like infection. You know, and they had me do a CT scan to see it. Well it took, like, three or four months to get the approval. [1013]
- They only changed a few of my meds 'cuz they wanted generics instead of names… And I'm a diabetic so they were more into the auto inject pens than they were into the vials of insulin. So that was the only thing that was different from anything else I've ever had. [1072]
- The only problem that I really have with the insurance is I live in a small town so a lot of the, like if you need something major done. You cannot find it in this town, you have to travel. Then you come, you get to the point where, well how in the heck am I gonna get two and a half hours away? That's about the only complaint that I have is because people don't know that they. That they assist you with that. And if they do assist you with that, it's like they expect you to pay outta pocket, they reimburse you, I really don't know how it works, but. [2050]
- I had to find a new doctor…Only downside is how long you have to wait for someone to get back to you. And I was lucky and was able to get an appointment, like, the next week but that's kind of unheard of. [1004]
- I... Just don't know who to go to and who not to…Yeah they really don't explain it to ya. They just give you a card and, and then you just pick a doctor. That's all I know about it. [4043]
- Not really. But. I do, you know, say I would like to switch doctors. And, I don't know how to do that really...'Cuz, um, I don't know. I'd rather have a different doctor than what I have now...I'd rather go to a doctor office than go to a community clinic, you know. [2060]
- It would be beneficial to have a coverage like a mailing list or a internet list of what is covered that I don't have to call and try to find out what is covered or not [3090]
- It's a lot of red tape...To see my doctor…I had to choose the provider...Because my family doctor that I've gone to for years, does not accept that insurance plan. They ac-...Medicare, Medicaid but they don't do Iowa Health and Wellness...So I had to choose a provider. In another office...And so every time I want to go to my doctor, I have to have, they have to call to get that provider's number...To turn it in to insurance...It's been a hassle...I have to do that with everybody...That I normally go to for my health care. [3096]

Use of Care Currently and Importance of Health Insurance

To assess how interviewees were using their health care coverage and why, they were asked *Have you used the insurance? Seen a health care provider?* and *How important is it for you to have health insurance coverage?* Interviewees reported seeing health care providers for routine checkups as well as during times of sickness or emergency room visits, seeing dental providers, and filling prescription medication. **Health insurance coverage was reported to be important for interviewees often due to current medical conditions and the**

knowledge that if a health problem occurs they would be able to receive treatment without a financial burden.

Quotes from Marketplace Choice members:

- Well I've only had to have teeth, pulled and so far it's been good…I see one (a doctor) monthly for my back pain. [3013]
- Yes I have. I been. I go to Peoples Clinic and I plan to go get me some glasses when I call my doctor, see if he takes this Title 19, the Iowa Health Care. [3112]
- Yeah, just when I desperately need to go to the hospital. Like if I get my migraines that comes on…I just go up to the ER and they take care of me. [2013]
- Pretty important. Right now I just you know, I'm havin' a lot of, I need some procedures done and a lot of the time I don't know where to go. Or if my general practitioner, which general practitioner I need to go for the Affordable Health Care Act. Plan, whatever it is. Called. [2021]
- It's important to me! Right now. 'Cuz I'm on an inhaler, 'cuz I smoke. And that, so, if I'd had to pay for that, I'd just be havin' do without it. 'Cuz I can't afford no 300 dollars for an inhaler. [3039]
- Well. I experienced that when, when I first the psoriasis was at its worst. And I didn't have health coverage and I, at that time in my life I was between jobs. And finally found a job but there was no health insurance and that's when my psoriasis was at its worst. I was just devastated with it from, from my head to my toes. It covered my body. And I didn't have insurance. And I went to a dermatology clinic and, and because I didn't have insurance they actually didn't want to help me. They just prescribed a cream that, that did absolutely nothing for me. So I think it's very important. For everybody to have it. [1088]
- It's very important. I workin', tryin' to get that now with the Wellness Health Care I had it helped me to find out I have a deteriorated hip... I have multiple sclerosis, and I have arthritis in my bones...So it's very important for me to get this insurance. [1042]

Quotes from Iowa Wellness Plan members:

- And I have been going to the doctor, I just, I didn't get, I didn't get that done last year but I have been going to the doctor, to the dentist. To the eye doctor regularly and the Medicaid helps me with the dentist. And then with the eye doctor and with the medical doctor. So I've been doing all that regularly. [1085]
- I have been going to all, all of my checkups. I am diabetic, so I go every three months…Yes, for the checkups and also for the medicine. And also the dentist. [2002]
- But the good thing about it is I no longer have fees for all my medication. I'm on 25 different meds… No it was to get my medication. [2033]
- Yes. I'm a big believer in preventative care so I'm always getting my annual and actually, unfortunately the last couple months I needed it. I had pancreatitis twice, actually I just got out of the hospital Wednesday. And so it was definitely a blessing to have insurance and go to the doctor when I needed it. [3010]
- It's very important. If I don't have my medication I have lupus and a heart failure. If I don't have them, then I'll not be here for my children. So it's very, very important. [2033]

- It just takes a lot of stress off, knowing I don't have to worry about coughing up a big payment. And then if I do get sick I can take action and I don't have to fret over whether it's worth it for me to go in to the doctor. [3108]
- Considering what I'm going through now, VERY important. Like I said, considering what I'm going right, right now, um, any, you know, any help I can get while I was, oh, how long ago? Might've been... June? June diagnosed with, first with liver cancer and then now it's liver cancer slash, melanoma [1017]
- I'm diabetic so I was able to get coverage and to get my medication and to see a physician for regular checkups and things that I have...So it's very important and because I'm not old enough for Medicaid and I was in the Medicare. I was not eligible for Medicaid or any other kind of state insurance coverage in the other states where I lived. So it's very important. [3082]

Self-rated Health and Factors Affecting Health

To assess the self-rated health of interviewees and to determine what perceived factors that impact their health status, interviewees were asked *How would you rate your health?* and *When you think about your health- what factors impact your health the most?*

Overall, interviewee's self-rated health was often described as average or above average indicating a positive perception of one's health status. This rating did not correspond with the health concerns and risk factors the interviewees reported on. Many enrollees reported serious and chronic health conditions, despite rating their health as average or above average.

Interviewees enrolled listed age, lifestyle, the presence of chronic diseases, access to medication and healthcare, stress, physical activity, diet and food access, being overweight, family history, mental health, and engaging in risky activities such as tobacco and alcohol consumption as major factors that impact their health.

Quotes from Marketplace Choice and Iowa Wellness Plan members:

- As, as far as impactin' it? I exercise daily. So that's very important to me. And I eat right. And now with this insurance I'm able to go every six months to make sure. 'Cuz, like I said, every one of my family members has had ovarian cancer but me. So we're just watching over me. [2038]
- Lifestyle. You know, how often you do see a medical provider. I think those are probably the two biggies. [3001]
- Eating habits. The more the good stuff you take in, the healthier you are, and the less you get sick. Not smoking. Not drinking, stuff like that. [1010]
- Like my family history it that really is what worries me the most because there's a lot of health issues in my family history. Oh, diabetes, heart disease, heart attacks, stuff like that. Cancer. Just, yeah, stuff like that. It concerns me. [4010]
- So being able to have access to my daily medication and then my (inaudible) medication. That's something that really, I don't want to say controls my life, but it kind of does! (laughing). I would say access to health care, access to different programs. And I don't know. Just having that peace of mind. [1004]
- Health care availability. [4016]
- Oh, I think that just going to the doctor and getting prescriptions that would get me better. [3017]

Self-efficacy and Locus of Control Related to Health

To assess the self-efficacy and locus of control regarding the ability manage their health, interviewees were asked *Overall, how confident are you about your ability to take good care of your health?* and *How much control do you feel like you have over your health and how healthy you can be?*

The majority of interviewee's answers scored high on both measures concurrently and many reported having complete control and confidence regarding their health.

Quotes from Marketplace Choice and Iowa Wellness Plan members:

- I'm pretty confident I can take care, good care of my health. [3001]
- 100 percent. Well, other than genetically and (here). Getting older. I mean, I don't have control on that, but. None of us do. [3013]
- Well, there's times when I don't really eat right, like that way I should, but yeah I got control over my health. I don't exercise as much as I should, but, yeah. My last checkup is, is pretty basic. [1113]
- Somewhat. I can't really afford, you know, buy my own food at the moment so I kinda have to just eat what my parents get. So it's, yeah it's somewhat limited due to monetary reasons. [3033]
- Well as long as I keep goin' to the doctors and takin' my medicine I feel like I have a lot of control. [2033]
- I'm fairly confident now that I have health coverage and they have now found medication to control some of my health issues [2016]

Limitations

The quantitative analyses are limited in three ways. First, there is the challenge of identifying and assigning individuals to the correct coverage group. While we used a minimum enrollment period of 6 months as an eligibility criterion, this does mean that we exclude individuals who got enrolled later in the year or who otherwise had less than 6 months in at least one program. As the program continues, this should become less problematic, unless disenrollment causes it to be a perennial issue. For now, however, it does raise a question about the generalizability of our findings to the programs as a whole. Second, there is the challenge of data sources. We were able to identify wellness exams using DHS records as well as Medicaid claims. However, these data are often in disagreement. At the same time, we were able to identify HRA completion using DHS records, 3M/TREO Solutions records, and Medicaid claims. Again, these data are often in disagreement. To the extent that completion of these activities is a metric of program success, the data source used will yield different results of how successful (or unsuccessful) the program is. Generally, we find that DHS records, which are being used to make determinations around exemption from monthly premiums, and subsequent disenrollment decisions, are the most generous measure. However, it is concerning that these records indicate completion of activities that cannot be confirmed by either Medicaid claims or by the very firm contracted by the state to collect these data (3M/TREO Solutions). Finally, our logistic regression models are limited by the fact that there may be unobserved factors that differ between individuals, for which we are unable to adequately adjust our models. This may bias our results. However, the direction and magnitude of any such bias cannot be well predicted.

The qualitative data and analysis also had some limitations. First because few clinic staff or enrollees were aware of the Healthy Behaviors Program, it was difficult to assess awareness and knowledge of the program. Second, because there have been and continue to be many different programs associated with Medicaid, for example IowaCare, Integrated Health Home, the Medicaid Health Home it was clear that clinic managers were confusing other programs with the Healthy Behavior Program. This confusion made it difficult for interviewers to tease out actual knowledge and experience related to the Healthy Behaviors Program separate from other programs. Many enrollees also had experience and knowledge of other programs. It was difficult to ensure that the experiences they were reporting on were experiences related to the Healthy Behaviors Program and not experiences they had under other Medicaid programs.

Future Evaluation Activities

Projecting ahead to the next 12 months, this evaluation will evolve as the Medicaid Modernization happens. We will continue the proposed evaluation, assuming that we will continue to have timely access to data. Below are the evaluation reports for the next year and amendment's we will be making to the evaluation activities in response to program changes.

Claims based outcomes report June 30 2016 will be completed on time assuming we continue to have timely access to data.

Provider survey report July 31 2016 will be modified. We will not conduct a survey with providers because the findings from the current report indicate that providers will not have enough knowledge to generate accurate data about the program through a survey. Additionally, Medicaid Modernization will be occurring at the same time the survey would be fielded. This transition would likely influence the data gathered and present bias that we could not account for. As an alternative to a provider survey we are proposing in-depth telephone interviews with representative from the Medicaid MCOs. These interviews would document the MCOs plans related to the Healthy Behaviors program and identify how this information is communicated to enrollees and providers. The data gathered will provide a baseline for understanding systems level program components and challenges.

Other healthy behaviors completion report Nov 31, 2016 will not be completed. Because no additional behaviors were selected for the program during the previous program years, we do not have data to complete this report. Interviews with representatives from the MCOs will provide us with information about what other behaviors will be in incorporated and we can plan data collections and analysis based on those MCO specific behaviors.

ACO interviews report Dec 31, 2016 will be completed. We will be interviewing ACO representatives about the program. Based on the clinic manager interviews, ACO were key in decision making about how the program was promoted.

Disenrollment interviews report Jan 31 2017 will be completed and modified from the original proposal. The original proposal assumed disenrollment would begin after the first group of enrollees failed to complete their healthy behaviors and pay their premiums. This process was not in place until late 2015. Assuming we receive disenrollment and bad debt data in early spring 2016, we will begin in-depth interviews in late summer 2016. The interviews will assess knowledge of disenrollment, the path disenrolled individuals took to become re-enrolled, find other health care coverage or remain uninsured and how health care needs were/are being addressed. Based on initial interview findings we will work with DHS to determine if a disenrollment survey is feasible.

Enrollee survey was scheduled to be developed from the in-depth interviews and fielded early 2016. Because Medicaid Modernization was scheduled to happen January 1, 2016, we had postponed the survey. Fielding a survey during the transition time would have created confusion for enrollees and contributed to unreliable survey data. Following the delayed start of Medicaid Modernization, we will be fielding the survey when enrollees/members have been assigned/selected their MCO. This survey will be a baseline for an MCO- specific Healthy Behaviors Program.

Conclusions

The HBI program is designed to encourage enrollees to take an active part in maintaining their health and to promote accountability among enrollees, but the combination of a general lack of awareness and understanding about the program at the enrollee and provider level have stunted the program's ability to achieve significant participation in the first phase. The number of members who have completed either the wellness exam or the HRA is suboptimal. More efforts need to be directed at increasing awareness about the program. Clinic managers demonstrated very limited awareness and knowledge of the program. While some larger organizations or ACOs may be encouraging the completion of the behaviors at an organization level, clinic staff needs to be more aware of the program in order to encourage the completion of the behaviors and answer questions members may have. Enrollees and clinic managers pointed to specific instances when the clinic staff assisted the enrollee in completing one of the behaviors. Specific efforts should target member populations that are less likely to complete the behaviors. These populations include younger members, men, non-whites, members with less interactions with the health care system and those that have been enrolled in the program for fewer months. These populations might have limited exposure to the information about HBI through clinics. It is also not clear how much of the lack of awareness about the program is related to general confusion about health insurance coverage, what it is called, and how it works. There was also confusion about what a premium or contribution is compared to a co-pay and a bill from a health care provider. Many members reported little access to health insurance or interaction with the health care community before enrolling in IHWAP, this lack of experience might be related to difficulties understanding the program. In addition to increasing awareness about the program, barriers such as scheduling, health care providers not accepting insurance, access to the internet/computer, and time prevent members who know about the program from actually completing the behaviors. In general enrollees had positive perceptions of getting a wellness exam and completing an HRA. There was a consensus that these activities would improve health. While clinic managers report that the communication with IME is positive, clinics may also require more detailed information about how the HRA can be integrated into patient-provider communication, medical care, and treatment plans. Additionally the incentives for health care providers to encourage their patients to complete the behaviors are not well understood by clinic managers. Clinic managers also indicated that there is confusion about the various Medicaid programs and concern about additional changes in future.

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Non-Emergency Medical Transportation and the Iowa Health and Wellness Plan

Suzanne Bentler
*Assistant Research Scientist**

Peter Damiano
*Director**
*Professor, Preventive & Community Dentistry***

Elizabeth Momany
Assistant Director, Health Policy Research Program
*Associate Research Scientist**

Brooke McInroy
*Survey Research Manager**

Tessa Heeren
*Research Assistant**

**University of Iowa Public Policy Center*
***University of Iowa College of Dentistry and Dental Clinics*

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Background

On January 1, 2014 Iowa implemented the Iowa Health and Wellness Plan (IHAWP). IHAWP expanded health coverage for low income Iowans through two separate coverage programs - Iowa Wellness Plan and Iowa Marketplace Choice Plan. The Iowa Wellness Plan (IHAWP-WP) is administered by the Medicaid program and covers adults ages 19 to 64 with income up to and including 100% of the Federal Poverty Level (FPL). IHAWP-WP members can choose a provider from the statewide provider network. In the Iowa Marketplace Choice Plan (IHAWP-MPC), adult (ages 19 to 64) members with income from 101-133% of the FPL get health care coverage through private insurers (Coventry Health Care and CoOportunity Health) with plans on the Health Insurance Marketplace and Medicaid pays the members' premiums for the health plan. IHAWP-MPC members get their health care from providers approved by their private health plan. The IHAWP has been modified in its first 2 years. CoOportunity Health withdrew from the IHAWP-MPC at the end of November 2014.[1] CoOportunity members were automatically transitioned to IHAWP-WP providers on December 1, 2014, however; they retained their designation as IHAWP-MPC members.

Programmatically, the IHAWP was designed to include a benefit structure more like commercial insurance than traditional Medicaid. Specifically, IHAWP benefits were based on the state of Iowa employees' commercial health insurance plan and therefore does not contain the extensive benefits traditionally associated with Medicaid under the State Plan and, in particular, does not include the non-emergency medical transportation (NEMT) benefit.

Briefly, the Code of Federal Regulations requires States to "specify that the Medicaid agency will ensure necessary transportation for beneficiaries to and from providers."[2] Thus, all states are required to make NEMT available to their Medicaid beneficiaries. However, the provision of NEMT services and reimbursement methodologies are determined by the individual state Medicaid programs. In Iowa, an NEMT service broker called TMS Management Group[3] is used to manage NEMT services, including the authorization of transportation, verifying member and trip eligibility, processing transportation claims and reimbursements, and auditing trips and claims.[4]

The Centers for Medicare & Medicaid Services (CMS) initially approved a waiver of the state of Iowa's responsibility to provide NEMT services for IHAWP members during the first year of the IHAWP (January 1, 2014 – December 31, 2014) with the possibility of extending the waiver based on an evaluation of the impact on member access to care. After CMS reviewed preliminary data on NEMT and access, Iowa's NEMT waiver for the IHAWP was extended through July 31, 2015 during which time a review of IHAWP member experiences (based on 2014 survey data) regarding transportation

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[1] Iowa Marketplace Choice Plan Changes. Iowa Department of Human Services. November 2014. Available at: https://dhs.iowa.gov/sites/default/files/CoOpTransition_FAQ_11052014.pdf. Accessed July 2, 2015.

[2] Assurance of Transportation, 42 CFR 431.53. Accessed January 15, 2016 from http://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=0c7ee7a5cbe463eda67e0e61810a8627&mc=true&n=pt42.4.431&r=PART&ty=HTML#se42.4.431_153

[3] Iowa Medicaid Non-Emergency Medical Transportation Program. TMS Management Group, Inc. http://www.tmsmanagementgroup.com/index.php/iowa-medicaid-net-program Accessed January 15, 2016.

[4] Iowa Department of Human Services. Non-Emergency Medical Transportation. https://dhs.iowa.gov/ime/members/medicaid-a-to-z/NEMT Accessed January 15, 2016.

and access to care could be conducted. The findings from this data were mixed with somewhat more IHAWP-WP members (who do not have an NEMT benefit) than traditional Medicaid State Plan members (who do have an NEMT benefit) experiencing an unmet need for transportation to or from a health care visit. However, the difference was not statistically significant. Due to these results, CMS extended the NEMT waiver through March 31, 2016 (and subsequently through June 30, 2016) and requested the independent evaluators of the IHAWP conduct an additional survey of IHAWP and Medicaid State Plan (MSP) members regarding transportation and access to health care to provide additional information to consider before granting further extensions of the NEMT waiver. In response to this request, the Public Policy Center fielded a survey to over 30,000 IHAWP-WP, IHAWP-MPC, and MSP members (10,180 from each program) from October 28, 2015 – January 15, 2016. This report includes the findings from the analyses of the survey data and associated administrative claims experiences of the members who responded to the survey.

Methodology

To understand and evaluate issues related to non-emergency medical transportation (NEMT) for IHAWP members, we used both survey (personal experience) and administrative (billing claims experience) data. Our samples included members whose health plan included an NEMT benefit (MSP-Family Medical Assistance Program (FMAP)) and those in health plans that were not obligated (through a governmental waiver) to provide an NEMT benefit (IHAWP-WP & IHAWP-MPC). We asked all members in the surveys about their experiences with health care and transportation in the six months prior to the survey and merged their responses to their administrative claims during the same period to assess the relationship between need for NEMT and health care utilization. The following description provides detail about the survey data collection, the administrative claims, and the analytic methods used for this report.

Member Surveys

This report includes data from surveys of IHAWP-WP, IHAWP-MPC, and adult MSP-FMAP members. These surveys were fielded from October 28, 2015 through January 15, 2016.

General methods used to develop, field, and compile the data from these surveys follow.

Survey Instruments

The survey included questions about the following topic areas:

- Access to Transportation and Need/Unmet Need for Non-Emergency Medical Transportation
- Need and Unmet Need for Routine Health Care Services (derived from NHIS[5])
- Barriers to Obtaining Health Care Services
- Usual Place of Care and Identification of a Personal Doctor
- Emergency Room Care
- Functional Limitations (derived from the Behavioral Risk Factor Surveillance System (BRFSS)[6])
- Chronic Physical and Mental Health Conditions
- Demographics

The survey instrument is available in Appendix A. At the end of the survey, respondents had a chance to provide open-ended comments about their experiences. Appendix B includes a summary of the comments left by respondents.

Survey Field Methods

The 2015 Survey of IHAWP and MSP-FMAP members was conducted during the fall and winter of 2015/2016 using a mixed-mode mail methodology. Surveys were mailed to a stratified random sample of members who had been in their current plan for at least the previous six months. The sample was stratified into three groups: IHAWP-WP, IHAWP-MPC, and MSP-FMAP.

Random samples for each group were drawn from IHAWP and Medicaid enrollment data, current as of September 2015. Only one person was selected per household to reduce the relatedness of the responses and

[5] Centers for Disease Control and Prevention (CDC). National Health Interview Survey. Available at http://www.cdc.gov/nchs/nhis/quest_doc.htm
[6] CDC. BRFSS. Available at http://www.cdc.gov/brfss/questionnaires.htm

respondent burden. The sample was comprised of 10,180 IHAWP-WP, 10,180 IHAWP-MPC members, and 10,180 adult MSP-FMAP members for a total sample of 30,540.

Both mail and web-based surveys were used. The initial mailings were sent to members in late October 2015. A reminder postcard was sent 14 days after the initial mailing. About 14 days after the postcard reminder, a second mailing was sent to those who had not responded to the initial mailing. In the mailed cover letter and on the reminder postcard, enrollees were given the option of completing the survey online and provided the website address for that purpose. In an effort to maximize response rates for the mailed survey, both a premium and an incentive were used in the first mailing: each initial survey packet included a $2 bill and respondents who completed and returned the survey within two weeks of the mailing were entered into a random drawing for one of ten $25 Wal-Mart gift cards.

Response Rates

Response rates for each of the population groups is provided in Table 1. Response rates were adjusted by removing ineligible individuals from the denominator. Individuals were determined to be ineligible to complete a survey because of invalid or out-of-state addresses or they were deceased. The overall adjusted response rate was 30% with the lowest response rate from MSP-FMAP (23%).

Table 1. Response Rates for IHAWP-WP, IHAWP- MPC, MSP-FMAP

Plan	Total Sampled	Adjusted* Total	Responded	Adjusted* Response Rate
MSP-FMAP	10,180	9,097	2,055	23%
IHAWP-WP	10,180	8,883	2,980	34%
IHAWP-MPC	10,180	9,274	3,220	35%
Total	30,540	27,254	8,255	30%

* Adjusted for ineligibles – Those who no longer had a valid address or were outside the state of Iowa

Characteristics of Respondents & Non-Respondents

Table 2 shows the demographic characteristics of the respondents for each of the survey populations. Overall, respondents were more likely to be older, white, and female as compared to non-respondents, regardless of plan type. Within the MSP-FMAP group, respondents were less likely to come from metropolitan areas when compared to non-respondents, but were comparable to non-respondents with regard to length of enrollment and being from non-metro or rural areas. Within the IHAWP-WP and IHAWP-MPC groups, respondents were more likely to be enrolled longer than non-respondents and more likely to be from metropolitan areas but less likely to be from non-metro or rural areas when compared to non-respondents. Because of the large sample sizes, many of the comparisons between groups reached statistical significance even when the percentage or mean differences were not particularly striking. Thus, these results should be interpreted with some caution and effect size differences should be considered.

Table 2. Respondents vs. Non-Respondents by Plan Type

	MSP-FMAP		IHAWP-WP		IHAWP-MPC	
	Respondent N=2,055	**Non-Respondent N=8,125**	**Respondent N=2,980**	**Non-Respondent N=7,200**	**Respondent N=3,220**	**Non-Respondent N=6,960**
Mean Number Months of Plan Enrollment[1]	17.0	16.8	16.3†	14.4	13.1†	11.9
Mean % Poverty Level	11.9%	11.0%	35.9%†	32.9%	117.8%	118.5%
Mean Age	35.9†	32.8	44.6†	37.2	44.3†	36.4
Female	84%†	81%	59%†	49%	68%†	62%
Race/Ethnicity[2]						
White	73%†	67%	70%†	65%	72%†	68%
Black	6%†	10%	5%†	9%	4%†	7%
Hispanic	4%†	5%	2%†	5%	4%†	6%
Other[3]	4%†	5%	4%†	5%	3%†	5%
Unknown[4]	13%	12%	20%†	16%	17%†	14%
Urban/Rural[5]						
Metropolitan	53%†	56%	57%†	62%	56%†	61%
Nonmetro	41%	39%	37%†	34%	39%†	35%
Rural	6%	5%	6%†	4%	6%	5%

† Statistically significant difference between respondents and non-respondents at the p<.01 level.

[1] Months of enrollment ranges from 6 (all sampled had to have at least 6 months of enrollment) to 22 months. A member with 22 months of enrollment means that person was in the plan since January 1, 2014 (the start of IHAWP).

[2] Race/Ethnicity categories are not mutually exclusive; thus, the percentages may not sum to 100%.

[3] Other includes Asian, Pacific Islander, American Indian, or other.

[4] Race indicated as Unknown in the eligibility files.

[5] Urban/Rural Residence is defined by the Rural-Urban Continuum Codes (RUCC).[7] RUCCs define metropolitan counties by the population size of their metro area and nonmetropolitan (nonmetro) counties by degree of urbanization and adjacency to metro areas. In the table, metropolitan is an urban county with population up to 1 million. Non-metro is a nonmetropolitan county with population from 2,500 to 20,000 or more and rural is defined as completely rural with population less than 2,500.

Administrative Data

Medicaid eligibility files were used to obtain basic demographic information (months of enrollment, age, sex, race, and percent poverty) for all of the sample members. Health care utilization for the survey respondents was obtained from their Medicaid administrative claims. Medicaid institutional claims were reviewed for the six-month period prior to the administration of the survey to obtain the number of well care, acute care, and emergency department visits during that period.

[7] For more information on the Rural-Urban Continuum coding, refer to http://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx

A well care visit was coded if the claim included:

- Any preventive exam visit with a CPT code of 99385-99387, 99395-99397, 99401-99404, 99411, 99412, 99420, 99429 OR
- Any visit with a CPT code of 99201-99205 AND a preventive visit diagnosis code of V70.0, V70.3, V70.5, V70.6, V70.8, or V70.9.

An acute care visit was coded if the claim included:

- Any MD or ARNP visit that was NON-behavioral/emotional, NON-maternal, and a NON-well visit, AND
- The visit occurred in an office setting, outpatient clinic, rural health clinic, or FQHC according to the place of service AND
- The claim included CPT codes between 99210 and 99215.

An outpatient emergency department visit was coded if the claim included:

- A revenue code on an institutional claim of 450-459 AND
- The visit did not result in a hospitalization.

Analytic Methods

Study populations and univariate comparisons

Within this evaluation of NEMT, there are three distinct groups. Two of these are the study groups: Wellness Plan (IHAWP-WP) and Marketplace Choice (IHAWP-MPC). The third (comparison) group included adult members in the Medicaid Family Medical Assistance Program (MSP-FMAP). Descriptions of these plans follow.

Wellness Plan (IHAWP-WP) provides coverage for adults ages 19-64 with income up to and including 100 percent of the FPL. It is administered by the Iowa Medicaid Enterprise. Members have access to the Medicaid provider network established for this program.

Marketplace Choice Plan (IHAWP-MPC) provides coverage for adults 19-64 with income from 101-133 percent of the FPL. The Marketplace Choice Plan allows members to choose certain commercial health plans available on the health insurance marketplace, with Medicaid paying the member's commercial health plan premiums. During the study timeframe, IHAWP-MPC members could receive services through a qualified health plan (Coventry Health Care of Iowa-see below) or the traditional Medicaid program.

Coventry Health Care of Iowa
Coventry is a national managed care company that is based in Bethesda, MD. They operate statewide and are available on the Health Insurance Marketplace through the federal portal.

FMAP – Family Medical Assistance Program

The FMAP comparison group is composed of adult parents of children eligible for Medicaid. Non-employed and employed parents of children in Medicaid in families with incomes from 0-77% FPL are eligible for Medicaid coverage. As they earn more they are able to increase the percent FPL allowed for eligibility to encourage employment. They may be covered through a Health Maintenance Organization (HMO), Primary Care Case Management (PCCM), or Fee for Service (FFS) structure.

The initial analyses were means test comparisons of: 1) IHAWP-WP to MSP-FMAP members and 2) IHAWP-MPC to MSP-FMAP members. Statistical significance in the text and figures for these comparisons was at $p<.01$. For all survey analyses presented, the data were weighted to make it representative of all IHAWP and Medicaid members statewide and to account for the fact that there were not equal numbers of enrolled members in each sampled group. Thus, the percentages reported were weighted to reflect the statewide membership in each group. For the inferential statistics, the weight variable was re-based to the actual sample size in order to ensure that, while the adjustments for sampling method were retained, the standard errors used in the statistical testing were not artificially inflated.

Multivariable Models

Data from the Fall 2015 survey and Medicaid administrative claims were used to model factors related to unmet NEMT need and health services utilization. Four separate multivariable logistic regression models were fit; one for each of the following research questions. The outcome (dependent) variable and the focal independent variables for each model are described below each question.

Question 1. Is the presence or absence of the NEMT benefit associated with unmet need for transportation to health care visits?

The model provides the odds that respondents experienced an unmet NEMT need in the six months prior to the survey.

Unmet NEMT need (Outcome)

Survey respondents provided a yes or no answer to the following question: In the last 6 months, was there any time when you needed transportation to or from a health care visit but could not get it for any reason?

Plan Status (Focal Independent Variable)

We used two variables for plan status: 1) an indicator of whether a member was in the IHAWP-WP program (as compared to MSP-FMAP) and 2) an indicator of whether a member was in the IHAWP-MPC program (as compared to MSP-FMAP). This approach allows us to use MSP-FMAP (the group with an NEMT benefit) as the comparison group.

Question 2 Is unmet NEMT need associated with obtaining a well care visit?

The model provides the odds that respondents had a claim for a well care visit in the six months prior to the survey.

Well Care Visit (Outcome)

Claims data were used to determine if a respondent had a well care visit (yes or no) in the six months prior to the survey. The definition of a well care visit can be found in the Administrative Data section above.

Unmet NEMT need (Focal Independent Variable)

The definition and categorization of the Unmet NEMT need variable are given under Question 1.

Plan Status (Focal Independent Variable)

The definition and categorization of the Plan Status variables are given under Question 1.

Unmet NEMT need * Plan Status (Interaction terms)

Two interaction variables were included in the initial models to jointly model the effect of reported unmet need for transportation to health care visits (Unmet NEMT need) with the absence of NEMT benefit (Plan Status IHAWP-WP, Plan Status IHAWP-MPC).

If the interaction terms were not statistically significant at the $p<.05$ level, the interaction terms were removed and the model was fit without them.

Question 3 Is unmet NEMT need associated with obtaining an acute care visit?

Acute Care Visit (Outcome)

Claims data were used to determine if a respondent had an acute care visit (yes or no) in the six months prior to the survey. The definition of an acute care visit can be found in the Administrative Data section above.

Unmet NEMT need (Focal Independent Variable)

The definition and categorization of the Unmet NEMT need variable are given under Question 1.

Plan Status (Focal Independent Variable)

The definition and categorization of the Plan Status variables are given under Question 1.

Unmet NEMT need * Plan Status (Interaction terms)

The definition of the interaction terms is given under Question 2.

Question 4 Is unmet NEMT need associated with using the emergency department (ED)?

Emergency Department Visit (Outcome)

Claims data were used to determine if a respondent had a visit to an emergency department (yes or no) in the six months prior to the survey and that visit did not result in a hospitalization. The definition of an emergency department visit can be found in the Administrative Data section above.

Unmet NEMT need (Focal Independent Variable)

The definition and categorization of the Unmet NEMT need variable are given under Question 1.

Plan Status (Focal Independent Variable)

The definition and categorization of the Plan Status variables are given under Question 1.

Unmet NEMT need * Plan Status (Interaction terms)

The definition of the interaction terms is given under Question 2.

All models included the following additional explanatory covariates. These variables theoretically could have an effect on each outcome independent of the focal variables and are included to account for those potential effects. Variable data source, definitions, and reference group (for the categorical variables) are provided for each covariate.

Sociodemographic Variables

Age-Survey self-report. Definition: Dichotomous18-43 years (Reference Group), 44-64 years.

Female gender-Survey self-report. Male is the reference group.

Race/Ethnicity-Survey self-report. Each are dichotomous indicators. Race: White (Reference group = non-white), Black or African American (Reference group = non-Black), Hispanic (Reference group = non-Hispanic). Reference groups include those who self-reported as Asian, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, and other, non-specified.

Education- Survey self-report. Dichotomous: High School or Less (Reference group), More than High School.

Income-We used percent poverty level as an indicator of household income. The median split (according to plan type) was used in the models: MSP-FMAP: 0% (Reference group), > 0%; IHAWP-WP: 0 – 21% (Reference group), > 21%; IHAWP-MPC: 0 – 119% (Reference group), > 119%.

Months of enrollment-Number of months enrolled in the IHAWP-WP, IHAWP-MPC, or MSP-FMAP in the period from January 1, 2014 through October 31, 2015. The number of months of enrollment could range from 6 to 22 months. We used the median split of months in program: Shortest length in program (Reference group): 6-14 months, Longest length in program: 15-22 months.

Health Status Variables

Number of chronic conditions-Survey self-report. 1) Physical Health Conditions dichotomous: 0-1 (Reference Group), 2 or more. 2) Any Mental Health Condition dichotomous: None (Reference group), Any.

Health Status-3 measures from survey self-report were included: 1) Physical Health: Fair/Poor vs. Good/Very Good/Excellent (Reference group); 2) Mental Health: Fair/Poor vs. Good/Very Good/Excellent (Reference group); 3) Functional Limitations (yes/no): Reported any of four possible functional limitations which included physical or medical conditions that a) seriously interfered with a member's ability to work, attend school, or manage day-to-day activities, b) seriously interfered with a member's independence, participation in the community, or quality of life, c) required the member to have help with routine needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes, or d) required the member to have help with personal care needs, such as eating, dressing, or getting around the house.

Geographic Variables

Rural/urban-Rural-urban continuum codes (RUCC) provided through the US Department of Agriculture were used to categorize the respondent place of residence. RUCCs define metropolitan counties by the population size of their metro area and nonmetropolitan (nonmetro) counties by degree of urbanization and adjacency to metro areas. We used three categories: Metropolitan/Urban (Reference group), Non-metro, Urban (suburban), and Non-metro, Completely Rural. Metropolitan is an urban county with population up to 1 million. Non-metro, urban is a nonmetropolitan county with population from 2,500 to 20,000 or more and rural is defined as nonmetropolitan, completely rural with population less than 2,500.

Distance to nearest primary care provider-Each respondent address and the addresses of primary care providers in the plan network were geocoded. The distance from the member's home to the nearest active primary care provider (at least 1 claim in the past 6 months) was calculated. Distance to PCP was grouped into tertiles: Low: 0 – 0.7 miles (Reference Group), Middle: 0.71 – 2.0 miles, High: > 2.0 miles.

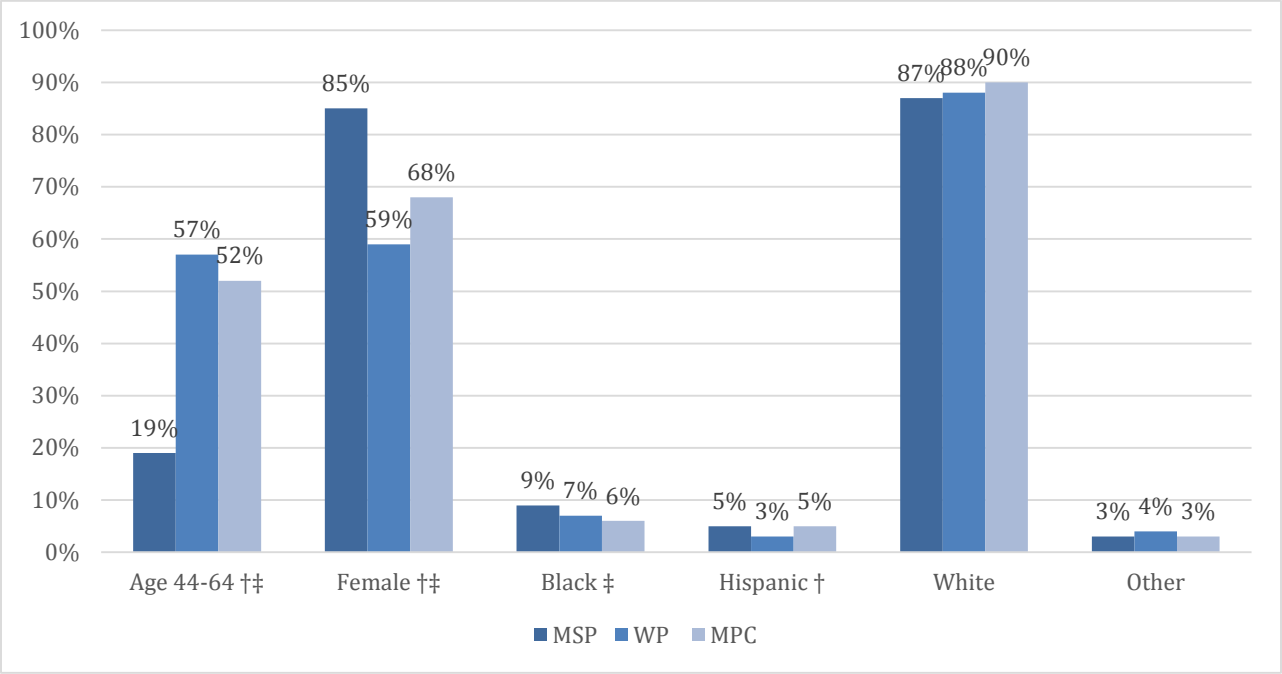
Distance to nearest hospital ED-Each respondent address and the addresses of all EDs in Iowa were geocoded. The distance from the member's home to the nearest ED was calculated. Distance to ED was grouped into tertiles: Low: 0 – 1.9 miles, Middle: 2.0 – 6.5 miles, High: > 6.5 miles.

Results

Demographic Characteristics

Figure 1 provides the age, gender, and racial characteristics of the members by plan type. MSP-FMAP members were younger and the vast majority (85%) were female which is significantly different than the IHAWP groups (WP & MPC) where less than 50% were under the age of 44 and less than 45% were female. Statistically, there were significantly more black respondents in the MSP-FMAP group than the IHAWP-MPC group and fewer Hispanics in the IHAWP-WP group compared to the MSP-FMAP group. The vast majority of members in all three groups were white (87%-90%).

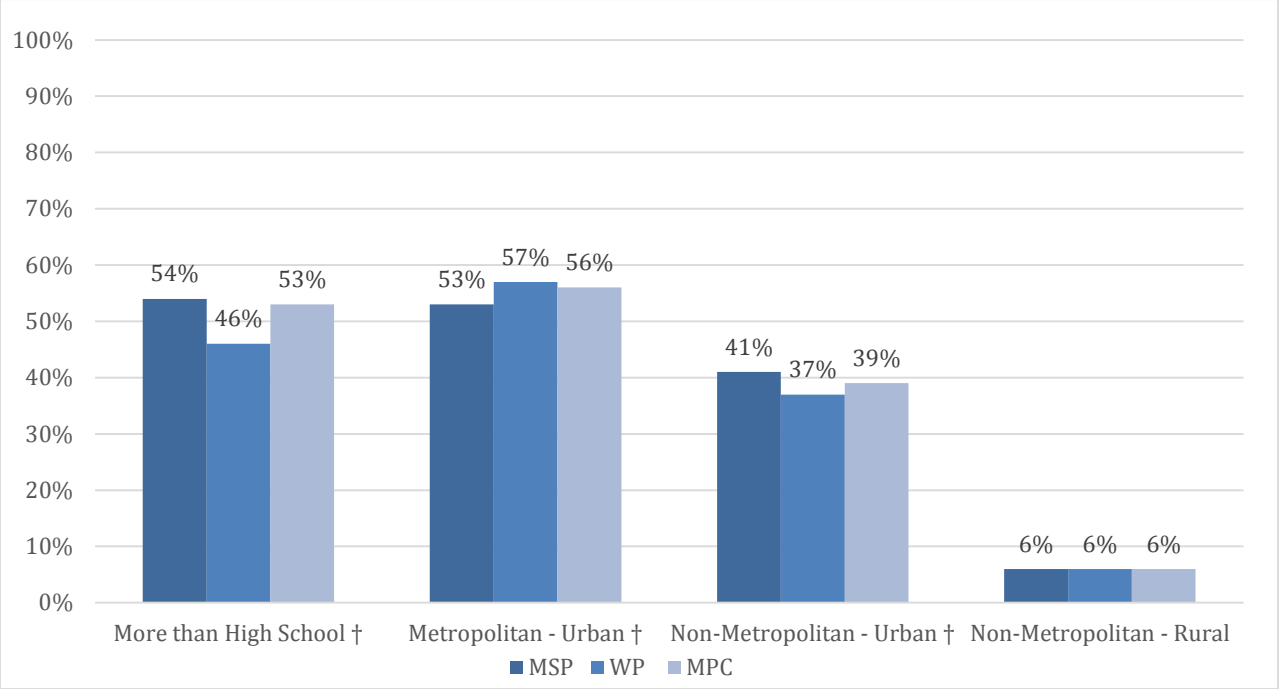
Figure 1. Age, Gender, and Race of Respondents by Plan



† Statistically significant difference between MSP-FMAP and IHAWP-WP at the p< .01 level.
‡ Statistically significant difference between MSP-FMAP and IHAWP-MPC at the p<.01 level.

Figure 2 shows the educational level and the urban/rural residential status of members by plan type. Approximately one-half of all respondents reported having more than a high school education with significantly more MSP-FMAP members (54%) than IHAWP-WP members (46%) reporting a higher level of education. Few members (around 6%) lived in a completely rural location. Most lived in an urban (metropolitan) or suburban (non-metropolitan, next to urban) setting. Significantly more IHAWP-WP members (57%) were in an urban setting compared to MSP-FMAP members (53%) with significantly fewer IHAWP-WP members (37%) living in a suburban setting compared to MSP-FMAP members (41%). The residential status of IHAWP-MPC members was comparable to MSP-FMAP members.

Figure 2. Education level and Urban/Rural Status of Respondents



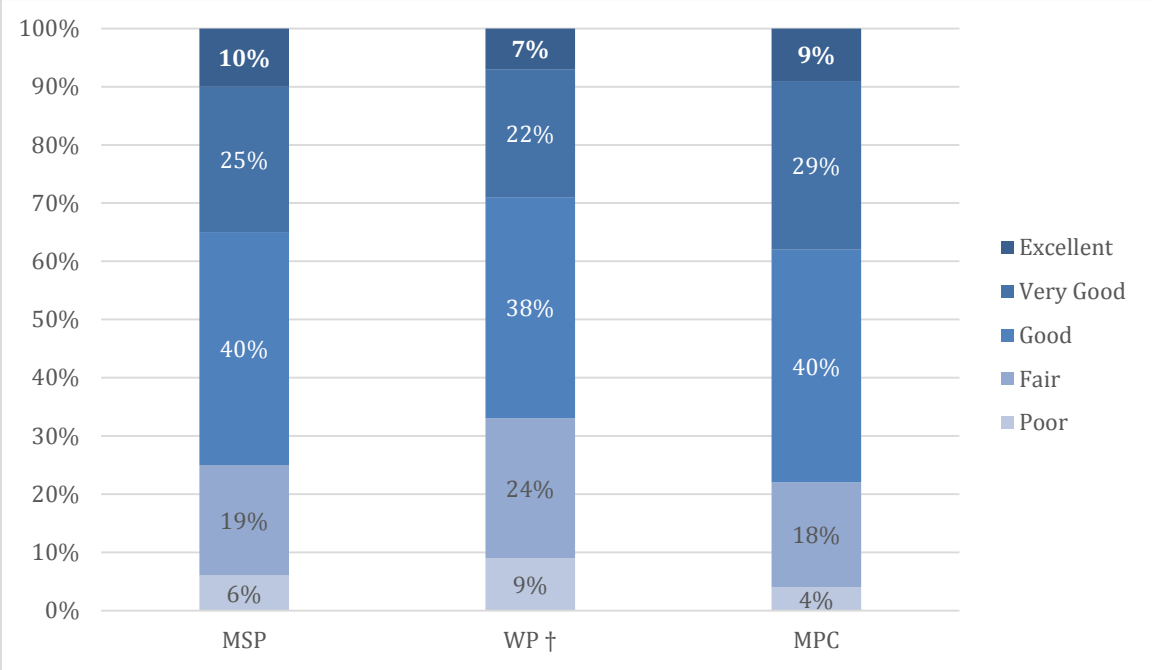
† Statistically significant difference between MSP-FMAP and IHAWP-WP at the p< .01 level.
‡ Statistically significant difference between MSP-FMAP and IHAWP-MPC at the p<.01 level.

Income levels within the three plan types were approximated using the household percent poverty level (PPL) as given in the enrollment files. The average PPL was 11.9% (median = 0%) for MSP-FMAP members, 35.9% (median = 21%) for IHAWP-WP members, and 117.8% (median = 119%) for IHAWP-MPC members.

Health Status and Utilization of Health Care Services

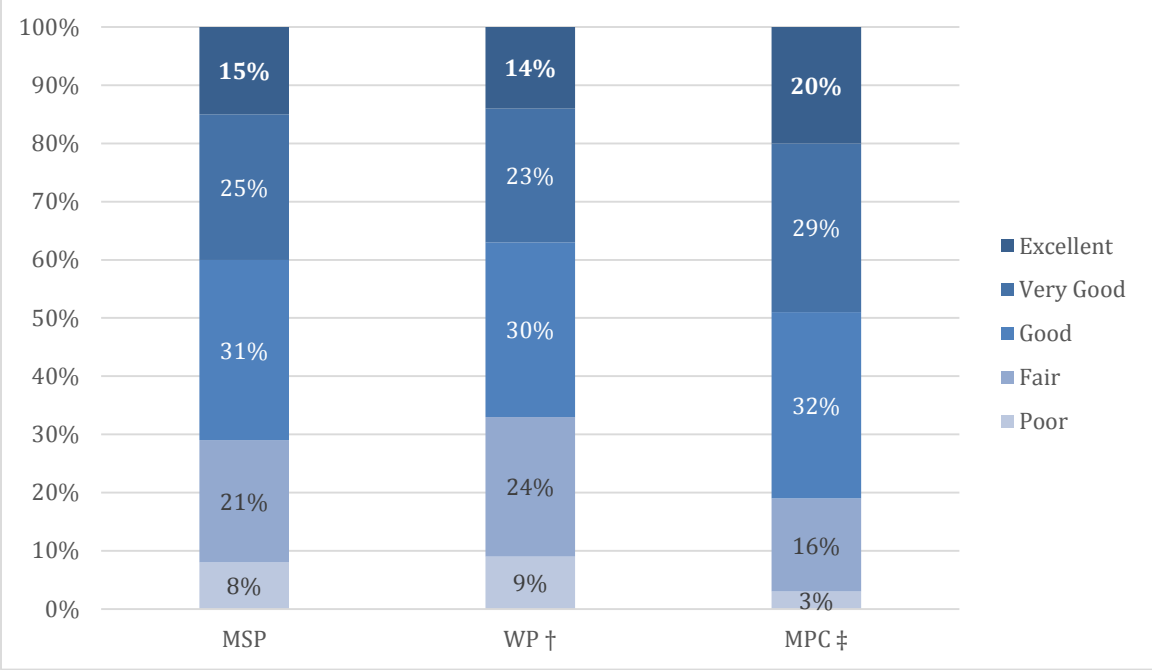
The health status of plan members was measured using several survey items. Members self-rated their physical and mental health on a scale from poor to excellent. Figure 3 and Figure 4 show the self-reported physical and mental health status of members by plan type. The health status of IHAWP members compared to MSP-FMAP members depended on the IHAWP program, with IHAWP-WP members reporting worse health and IHAWP-MPC members reporting better health than MSP-FMAP members. Around one-third (33%) of IHAWP-WP members reported fair or poor physical and mental or emotional health which was significantly higher than reported by MSP-FMAP members (26% fair or poor physical health, 29% fair or poor mental or emotional health). Around one in five IHAWP-MPC members reported fair or poor mental or emotional health (19%) which was significantly less than reported by MSP-FMAP members.

Figure 3. Self-Reported Physical Health



† Statistically significant difference reporting fair/poor between MSP-FMAP and IHAWP-WP at the p< .01 level.
‡ Statistically significant difference reporting fair/poor between MSP-FMAP and IHAWP-MPC at the p<.01 level.

Figure 4. Self-Reported Mental Health



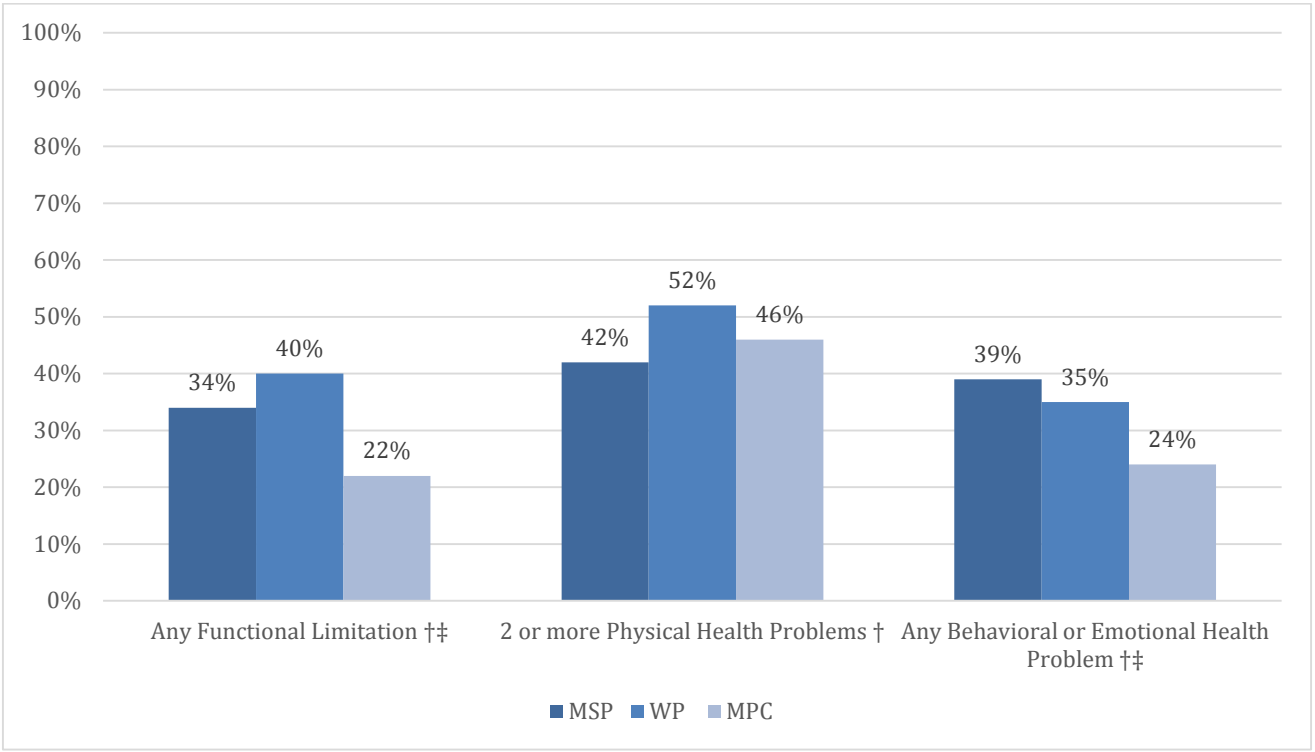
† Statistically significant difference reporting fair/poor between MSP-FMAP and IHAWP-WP at the p< .01 level.
‡ Statistically significant difference reporting fair/poor between MSP-FMAP and IHAWP-MPC at the p<.01 level.

The survey also asked members to indicate their current health conditions that had lasted or were expected to last for at least 3 months. The sum of the total number of reported chronic physical and mental health conditions was used to get a sense of the chronic disease burden experienced by these members. In addition,

we asked four questions about potential functional limitations (see the Health Status Variables section for the content of the questions) to get an approximated sense of their disability burden. A member was defined as having a functional limitation if the response to any of the four questions was positive.

Figure 5 provides an idea of the physical, mental, and functional burden experienced by members of these health plans. Forty percent of IHAWP-WP members reported at least 1 functional limitation which is significantly higher than reported by MSP-FMAP members (34%). However, fewer IHAWP-MPC members (22%) reported at least 1 functional limitation and this was significantly less than reported by MSP-FMAP members. Slightly over half (52%) of IHAWP-WP members reported having 2 or more chronic physical health problems which was significantly higher than reported by MSP-FMAP members (42%). However, more MSP-FMAP members (39%) reported having a chronic behavioral or emotional health problem when compared to either IHAWP-WP (35%) or IHAWP-MPC (24%) members and these differences were statistically significant.

Figure 5. Self-Reported Functional Limitations, Physical & Mental Health Problems

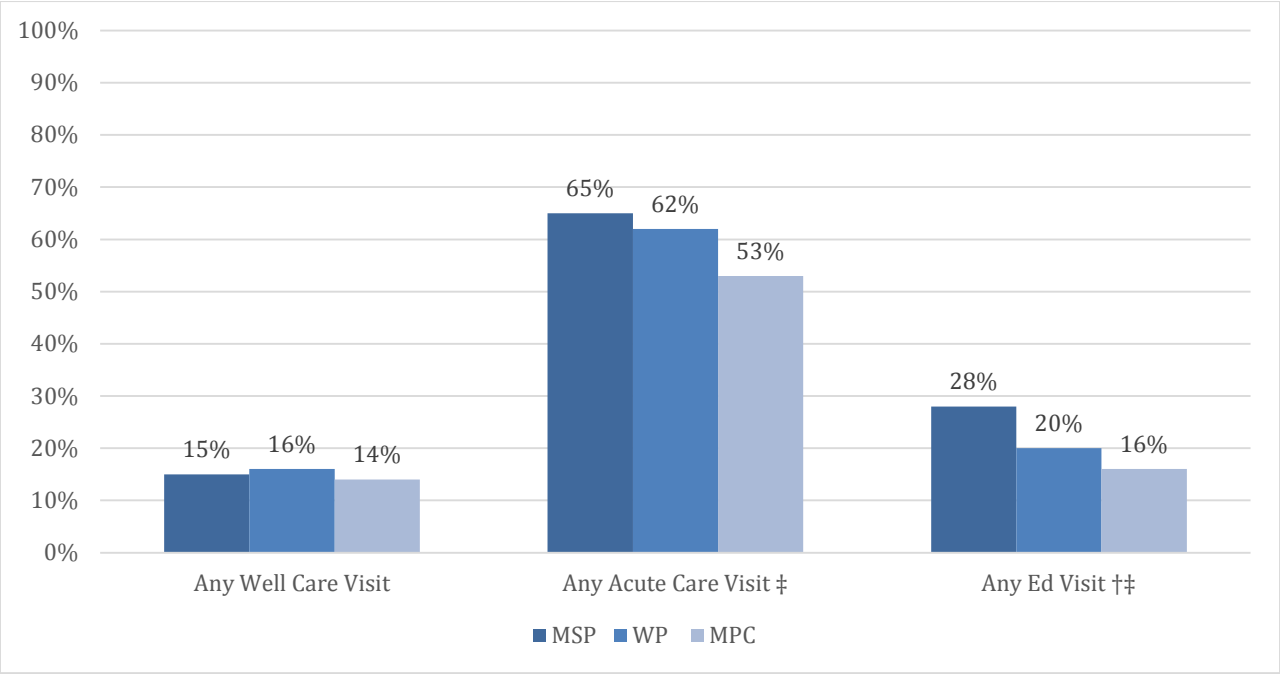


† Statistically significant difference between MSP-FMAP and IHAWP-WP at the p< .01 level.
‡ Statistically significant difference between MSP-FMAP and IHAWP-MPC at the p<.01 level.

The utilization of health services in the six months prior to the survey was evaluated using the members' claims history during that period. The number of well care, acute care, and emergency department (ED) visits were calculated for each survey respondent. For definitions of visit type, see the Administrative Data section.

Figure 6 shows the percentage of members by plan who had at least 1 visit (well care, acute care, and emergency department) in the six months prior to the survey. Well care visits were comparable among the three plan types with around 15% having at least one visit. Acute care visits were comparable between the MSP-FMAP (65%) and IHAWP-WP (62%) plans but the percentage in the IHAWP-MPC plan (53%) was significantly lower than that in the MSP-FMAP group. Finally, the percentage of members who had an ED visits was significantly higher in the MSP-FMAP plan (28%) compared to either the IHAWP-WP (20%) or IHAWP-MPC plans (16%).

Figure 6. Well Care, Acute Care, and Emergency Department Visits



† Statistically significant difference between MSP-FMAP and IHAWP-WP at the p< .01 level.
‡ Statistically significant difference between MSP-FMAP and IHAWP-MPC at the p<.01 level.

Need and Access to Health Care Services

The need for NEMT services is likely to be impacted by the need for routine health care services. In the survey, the following three items asked about need and unmet need for routine health care.

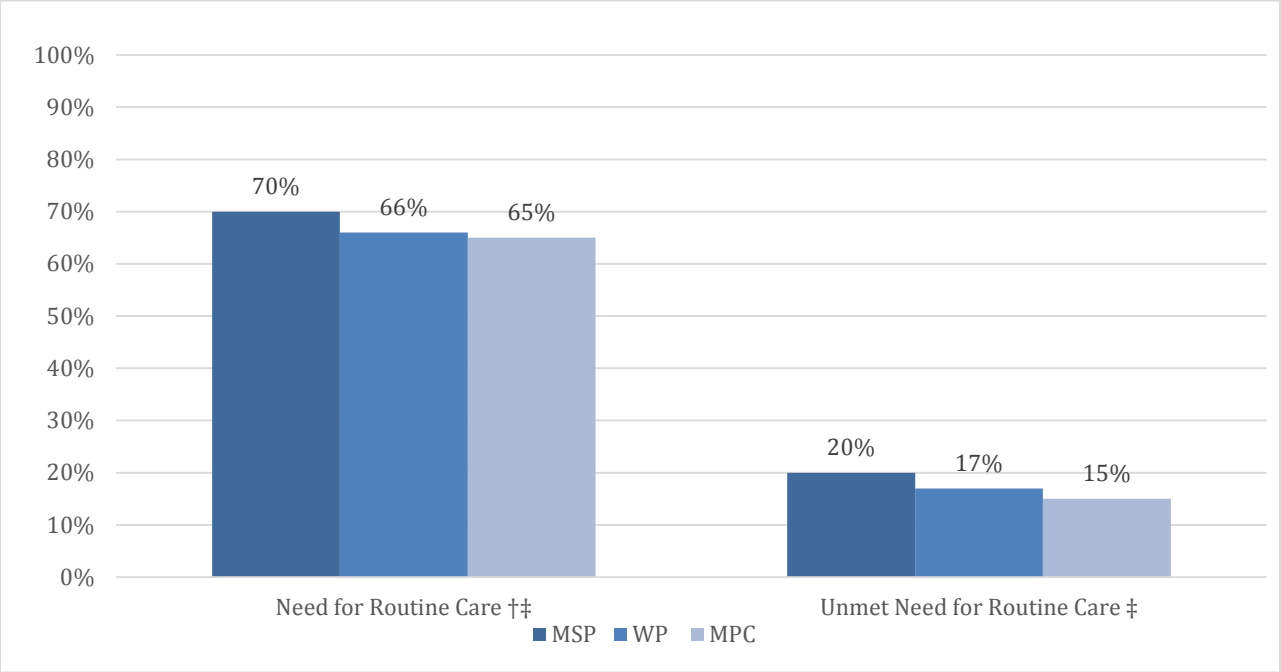
- In the last 6 months, was there a time when you needed a check-up or routine care of any kind? Do not include times when you needed care right away in a clinic, emergency room, or doctor's office.
- In the last 6 months, was there any time when you needed a check-up or routine care but could not get it for any reason? [Only for those who responded "yes" to having a need]
- What was the main reason you were not able to get a check-up or routine care when you needed it? [Only for those who responded "yes" to having an unmet need]

Figure 7 provides the need and unmet need for routine care by plan type. Most members reported a need for routine care. Seventy percent of MSP-FMAP members experienced a need for routine care which was significantly higher than IHAWP-WP (66%) and IHAWP-MPC (65%). Of those with a need, 20% of MSP-FMAP members reported an unmet need for routine care which was comparable to IHAWP-WP members (17%) but significantly higher than reported by IHAWP-MPC members (15%).

For those who reported an unmet need for routine care, the top three reported reasons for not getting a needed routine care visit varied by plan type. For those in MSP-FMAP with an unmet need for routine care, 30% reported that the wait was too long, 17% reported not being able to get transportation to the doctor, and 10% reported not being able to afford the care, the health plan would not approve/ pay for the care, or they could not get time off work/get child care. For those in IHAWP-WP with an unmet need for routine care, 23% were not able to get transportation, 17% reported that the wait was too long, and 15% reported that the health plan would not approve/pay for the care. Finally, 20% of IHAWP-MPC members with an unmet need for routine

care reported not being able to afford the care, 17% that the wait was too long, and 16% that they could not get time off of work/get child care. Of note, while transportation was one of the top issues for MSP-FMAP and IHAWP-WP members who experienced an unmet need for routine care, fewer IHAWP-MPC (12%) members reported transportation as a barrier.

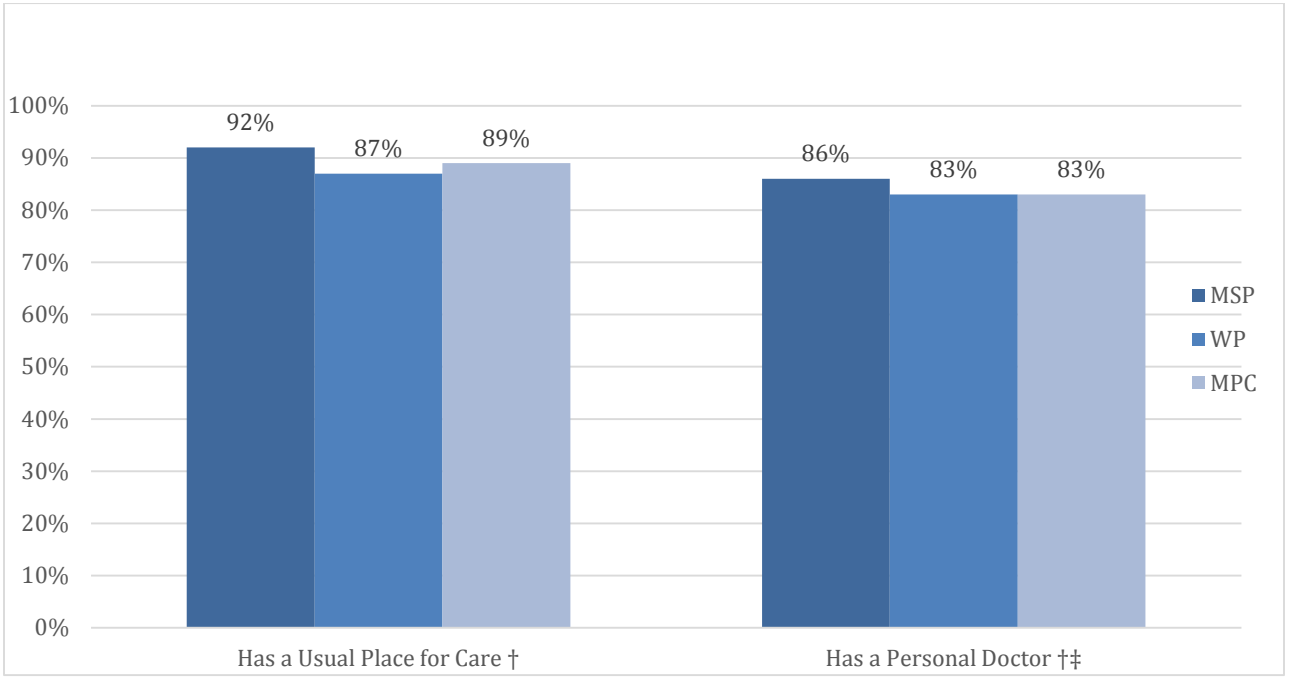
Figure 7. Self-Reported Need and Unmet Need for Routine Care



† Statistically significant difference between MSP-FMAP and IHAWP-WP at the p< .01 level.
‡ Statistically significant difference between MSP-FMAP and IHAWP-MPC at the p<.01 level.

Figure 8 shows the percentage of members, by plan type, who reported having a usual place for care and identified having a personal doctor (defined as the person they would see if they needed a check-up, wanted advice about a health problem, or were sick or hurt). The vast majority of all members reported having a usual place to go when they are sick or need advice about their health, with significantly more MSP-FMAP (92%) members reporting a usual place for care compared to IHAWP-WP (87%). Most members in each plan reported that the usual place they went for care was either a family physician's office (MSP-FMAP: 72%, IHAWP-WP: 62%, IHAWP-MPC: 67%) or a community or public health clinic (MSP-FMAP: 17%, IHAWP-WP: 23%, IHAWP-MPC: 21%). Given these results, it is not surprising that the majority of members also reported having a personal doctor (MSP-FMAP: 86%, IHAWP-WP: 83%, IHAWP-MPC: 83%).

Figure 8. Usual Source of Care



† Statistically significant difference between MSP-FMAP and IHAWP-WP at the p< .01 level.
‡ Statistically significant difference between MSP-FMAP and IHAWP-MPC at the p<.01 level.

An emergency department (ED) visit may be used as a substitute for primary care for a variety of reasons, including when transportation issues pose a barrier to getting to a doctor's office. In the survey, three items asked about visits to the ED.

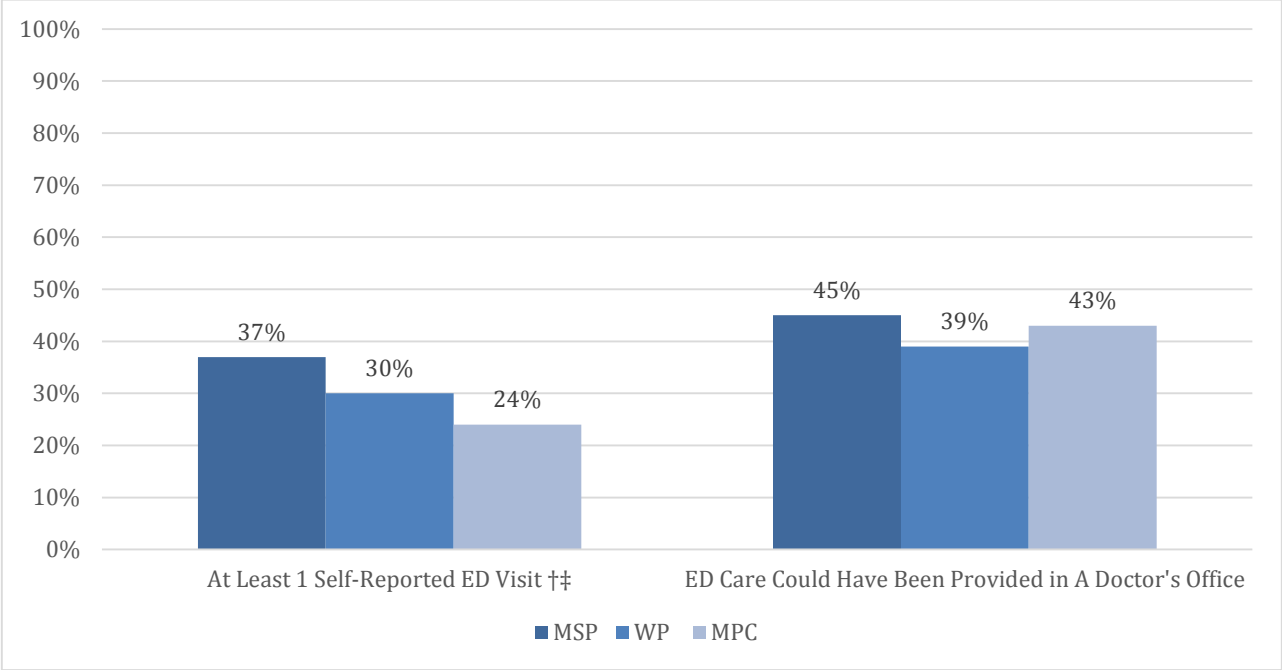
- In the last 6 months, how many times did you go to an emergency room (ER) to get care for yourself?
- [For those with at least 1 reported ED visit] Do you think the care you received at your most recent visit to the ER could have been provided in a doctor's office?
- [For those with at least 1 reported ED visit] What was the main reason you did not go to a doctor's office or clinic for the care you received at your most recent visit to the ER? Note: Transportation problems getting to a doctor's office or clinic was a listed response option.

Figure 9 provides the percentage, by plan, of members who reported at least one visit to an ED in the six months prior to the survey and the percentage who felt that the care they received at their most recent ED visit could have been provided in a doctor's office instead. Over one-third of MSP-FMAP members (37%) reported at least 1 visit to an ED which was significantly higher than reported by IHAWP-WP members (30%) and IHAWP-MPC members (24%). Of those who went to an ED, 45% of MSP-FMAP members thought the care could have been provided in a doctors' office which was comparable to IHAWP-MPC members (43%) and IHAWP-WP members (39%).

For those who had at least 1 visit to the ED, the top three reasons for not going to the doctor's office or clinic instead of the ED were the same for each plan type. The doctor's office not being open when care was needed was the most cited reason for using the ED instead of a clinic (MSP-FMAP: 50%, IHAWP-WP: 42%, IHAWP-MPC: 44%) followed by a health problem that was too serious for the doctor's office or clinic (MSP-FMAP: 24%, IHAWP-WP: 30%, IHAWP-MPC: 27%), and being advised by a doctor, nurse, or other health care provider to go to the ED for care (MSP-FMAP: 10%, IHAWP-WP: 10%, IHAWP-MPC: 12%). Of note, having

transportation problems getting to a doctor's office or clinic was chosen as a main reason by 3% of MSP-FMAP, 3% of IHAWP-WP, and 1% of IHAWP-MPC members.

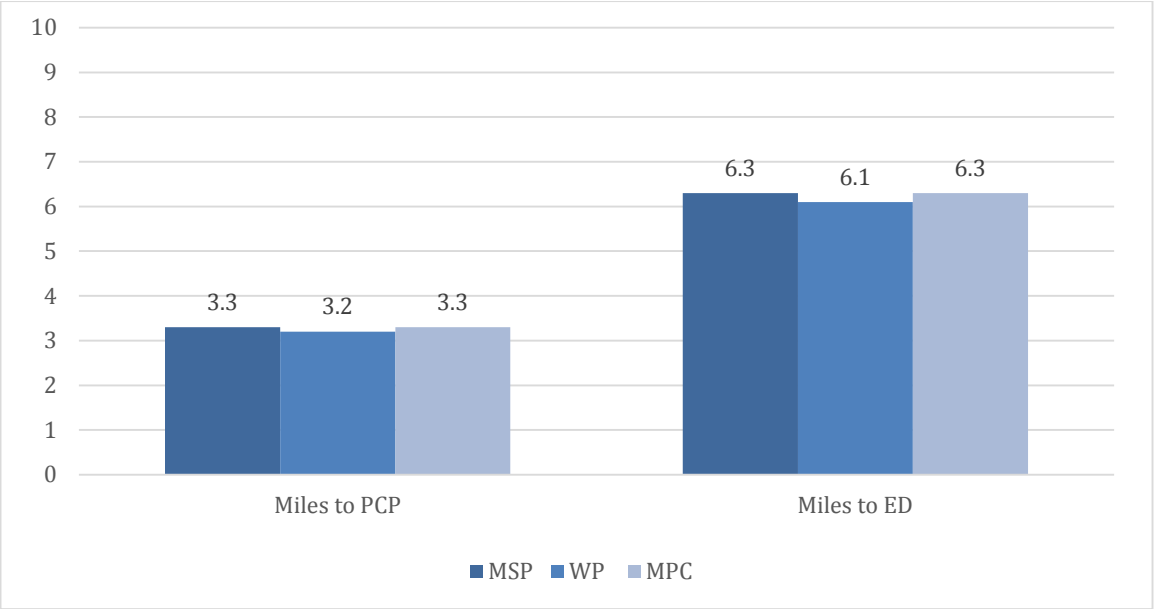
Figure 9. ED Visits and Potentially Avoidable ED Visits



† Statistically significant difference between MSP-FMAP and IHAWP-WP at the p< .01 level.
‡ Statistically significant difference between MSP-FMAP and IHAWP-MPC at the p<.01 level.

The distance from home to health care providers can be one factor influencing transportation as a barrier to the utilization of needed health care services. Figure 10 provides, by plan, the average distance in miles from members' homes to a) the nearest active (at least 1 claim in the past six months) primary care provider (PCP), and b) the nearest ED. The average number of miles to the nearest PCP was a little over 3, and was around 6 to the nearest ED, regardless of plan type.

Figure 10. Average Distance From Health Care Providers



Transportation and Access to Health Care

We examined member experiences with transportation to and from health care visits. Four items in the survey asked about access issues related to health care-related transportation.

- In the last 6 months, how often did you need assistance from other sources (such as friends, family, public transportation, etc.) to get to your health care visit? [Possible Responses: Never, Sometimes, Usually, or Always]
- In the last 6 months, was there any time when you needed transportation to or from a health care visit but could not get it for any reason?
- [Only for those who reported an unmet need for transportation]: Thinking of the most recent time you could not get to a health care visit because of transportation, what was the main reason you could not get there? [Possible Responses: My car broke down, The person who usually takes me was not available, The transit system was not available, and Other transportation problem]
- In the last 6 months, how much, if at all, have you worried about your ability to pay for the cost of transportation to or from a health care visit? [Possible Responses: Never, Sometimes, Usually, or Always]

Figure 11 provides, by plan, the percentages of members with need and unmet need for non-emergency medical transportation (NEMT), and worry about the cost of transportation. As stated previously, MSP-FMAP members have a plan benefit that covers NEMT services while members of IHAWP-WP and IHAWP-MPC do not.

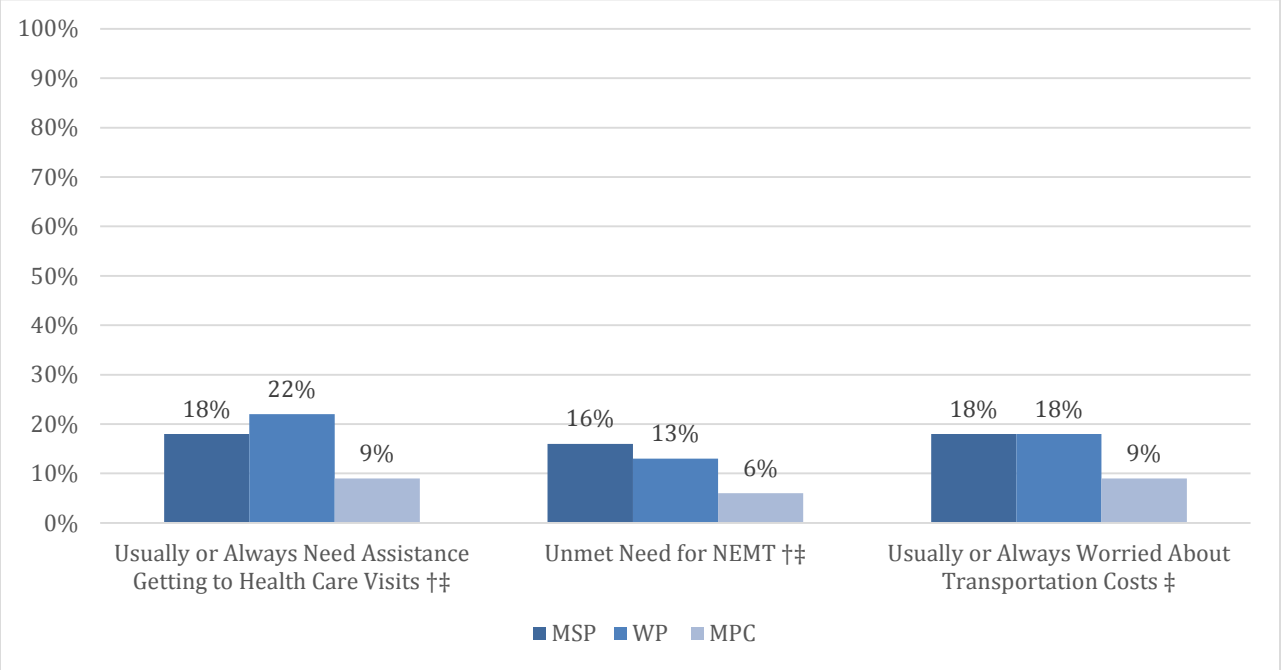
A little over one-fifth (22%) of IHAWP-WP members reported usually or always needing assistance from other sources to get to a health care visit which was significantly higher than reported by MSP-FMAP members (18%). Yet, 9% of IHAWP-MPC members reported needing this help which was significantly lower than reported by MSP-FMAP members.

Regarding unmet NEMT need, 16% of MSP-FMAP members and 13% of IHAWP-WP members reported an unmet need for transportation to health care visits and this difference was statistically significant. Six percent of IHAWP-MPC members reported an unmet NEMT need which was also significantly different from the MSP-FMAP group.

The most common transportation-related reason for not being able to get to a health care visit in all three plan types (for those who reported an unmet NEMT need) was that the person who usually takes them to visits was not available (MSP-FMAP: 45%, IHAWP-WP: 53%, IHAWP-MPC: 44%]. Having a car that broke down (MSP-FMAP: 28%, IHAWP-WP: 15%, IHAWP-MPC: 26%) and other problems such as transportation-related expenses (i.e., cost of gas, bus fare, cab fare, parking, or paying a friend or relative for a ride), lack of informal support (i.e., not having a friend or relative available to drive), or health issues interfering with the ability to seek care (i.e., not feeling well enough to walk or drive) (MSP-FMAP: 21%, IHAWP-WP: 18%, IHAWP-MPC: 21%) were common reasons. For IHAWP-WP members, 14% reported that they were unable to get to a health care visit because the transit system was not available while 6% of MSP-FMAP and 9% of IHAWP-MPC cited this reason.

Finally, level of worry about the ability to pay for the cost of transportation to or from health care visits was comparable between MSP-FMAP members (18%) and IHAWP-WP members (18%). However, IHAWP-MPC members experienced significantly less worry about cost of transportation (9%) compared to MSP-FMAP members.

Figure 11. Transportation to Health Care Visits: Need, Unmet Need, and Worry About Cost



† Statistically significant difference between MSP-FMAP and IHAWP-WP at the p< .01 level.
‡ Statistically significant difference between MSP-FMAP and IHAWP-MPC at the p<.01 level.

To get a sense of the transportation environment surrounding these members, the survey included several items related to method of transportation used to get to health care appointments, household drivers and vehicle availability, and the availability and use of public transportation. The five items were:

- When you need to get to health care, what is the type of transportation you use most often to get to your visit?
- Are you a licensed driver?
- How many licensed vehicles were owned or available for regular use by members of your household during the last 6 months?
- Is there a public transit system in your area?
- Have you used public transportation (such as a bus or government-provided transit) for any reason in the past year?

Figure 12 provides a summary of the types of transportation used by members to get to their health care visits. The majority of all members, regardless of plan type, reported that they depended on themselves alone (drove themselves, using their own vehicle) to get to their appointments (MSP-FMAP: 69%, IHAWP-WP: 58%, IHAWP-MPC: 81%) with IHAWP-MPC members most likely to do so and IHAWP-WP least likely. A little over one-quarter of MSP-FMAP members (26%) reported some type of dependence on others for driving to visits (i.e., driving self, using someone else's vehicle, someone else drives, using own vehicle, someone else drives, using their vehicle). Slightly more IHAWP-WP members (31%) and fewer IHAWP-MPC members (14%) reported depending on others for driving compared to MSP-FMAP. Nine percent of IHAWP-WP members reported depending on other forms of transportation (i.e., taxi, public transit, biking, or walking) to get to health care compared to 5% for MSP-FMAP and 4% for IHAWP-MPC. Very few (1% in each group) reported having no reliable way to get to health care visits.

Figure 12. Means of Transportation to Health Care Services

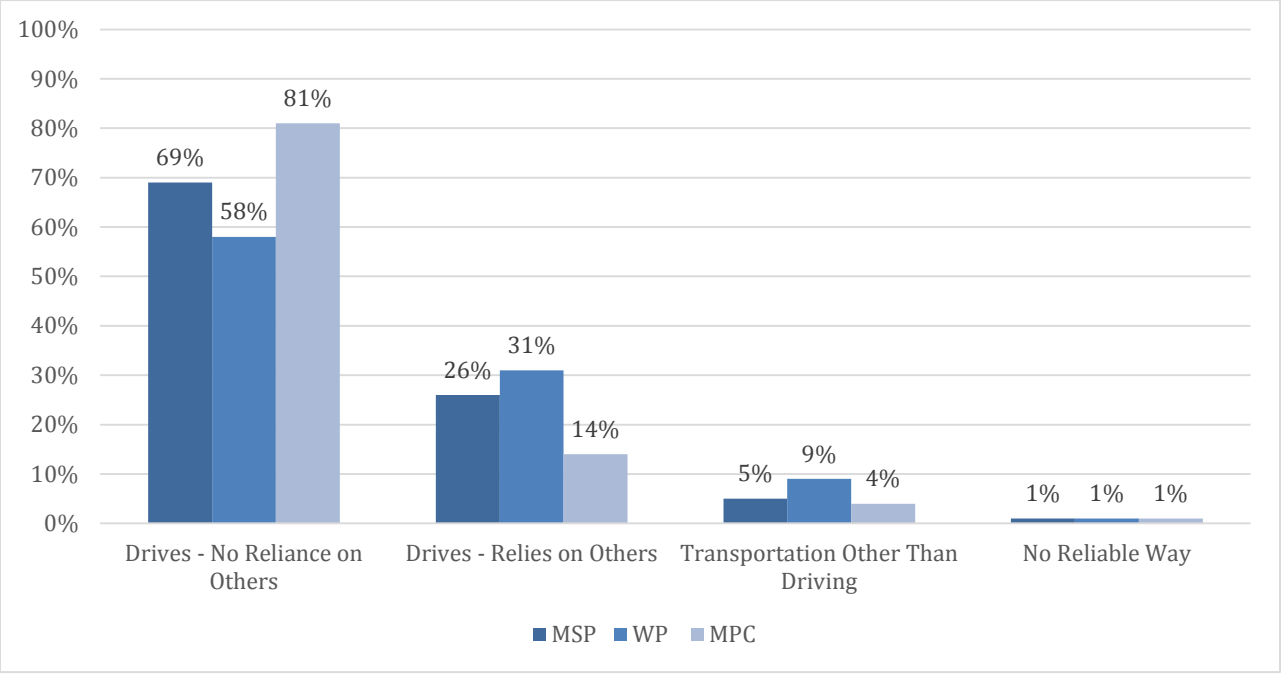
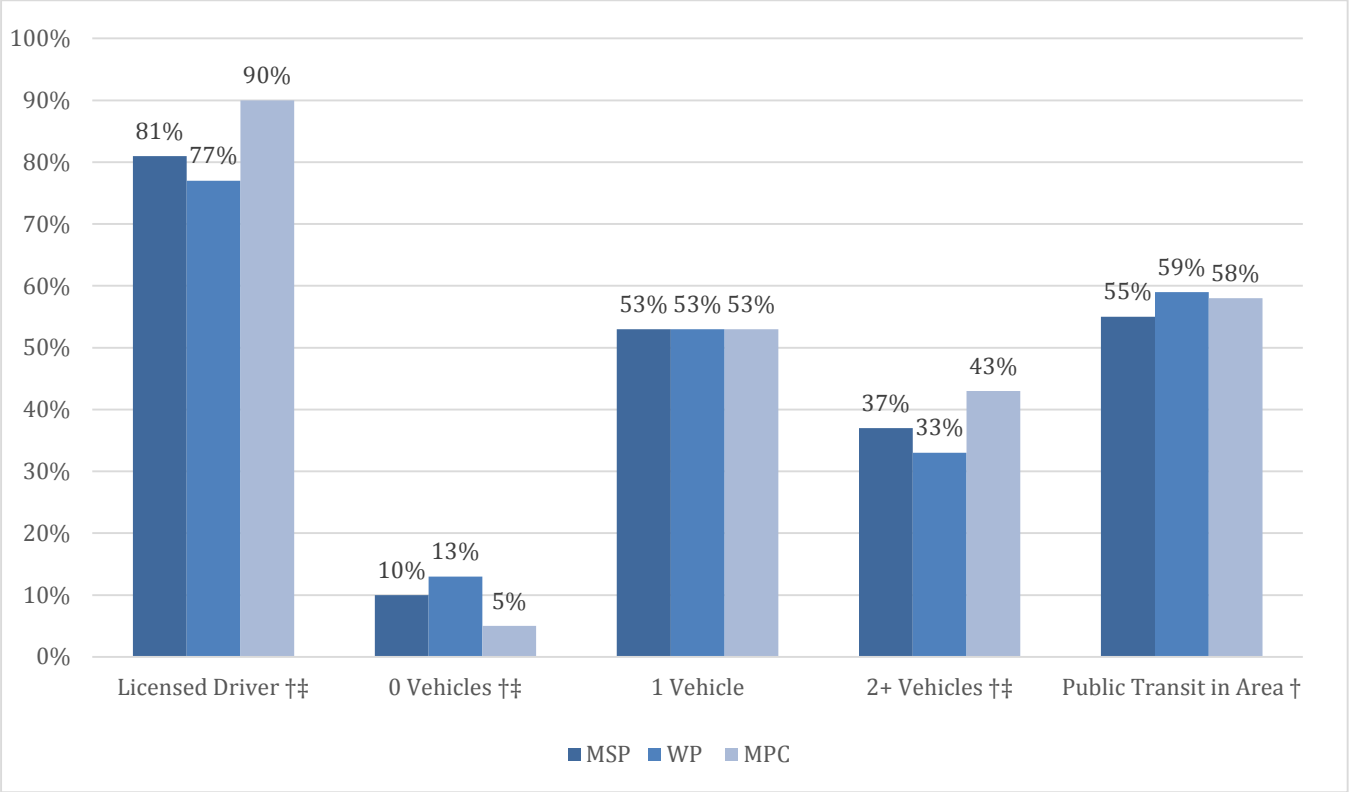


Figure 13 provides a summary of member access to and use of vehicles and public transit. The majority of respondents to the survey were licensed drivers with significantly fewer drivers in the IHAWP-WP (77%) and significantly more drivers in the IHAWP-MPC (90%) when compared to MSP-FMAP (81%). Interestingly,

around half (53%) of members in each plan type reported having only 1 vehicle available to the household. Significantly more IHAWP-WP members (13%) and significantly fewer IHAWP-MPC members (5%) reported having no vehicles available to the household when compared to MSP-FMAP members (10%). Conversely, significantly more IHAWP-MPC members (43%) and significantly fewer IHAWP-WP members (33%) reported having two or more vehicles available to the household compared to MSP-FMAP members (37%).

With regard to public transit, a little over half of all members (MSP-FMAP: 55%, IHAWP-WP: 59%, IHAWP-MPC: 58%) reported that there was a public transit system in their area. Over one-quarter of IHAWP-WP members (27%) reported having used public transportation in the past year which is significantly higher than reported by either MSP-FMAP members (19%) or IHAWP-MPC members (17%).

Figure 13. License status, Household Vehicles, and Public Transit



† Statistically significant difference between MSP-FMAP and IHAWP-WP at the p< .01 level.
‡ Statistically significant difference between MSP-FMAP and IHAWP-MPC at the p<.01 level.

Factors Related to Experiencing an Unmet NEMT Need

Table 1 provides the results of the logistic regression model predicting the likelihood of individuals experiencing an unmet need for transportation to or from a health care visit as a function of health plan (IHAWP-WP, IHAWP-MPC compared to MSP-FMAP), length of enrollment, age, gender, race/ethnicity, education, income, metropolitan area of residence, functional, physical, and mental health status, and distance to health care services. With regard to the relationship of plan type and unmet NEMT need, IHAWP-WP members had a 21% lower odds and IHAWP-MPC members had a 50% lower odds of having unmet NEMT need compared to MSP-FMAP members, after adjusting for the other variables in the model.

In addition to plan type, certain demographic characteristics also were associated with lower odds of unmet NEMT need. Older individuals (45 – 64) had an 18% lower odds compared younger individuals (18 -44),

whites had a 36% lower odds compared to non-whites, individuals with an education level above high school had a 23% lower odds compared to those with a high school education or less, individuals in the upper 50th percentile of income had a 37% lower odds compared to those in the lower 50th percentile, and those who lived in a rural area had a 33% lower odds of unmet NEMT need when compared to those who lived in a metropolitan area.

Females, black respondents, those enrolled in their plan longer, and those in poor health had an increased likelihood of having an unmet NEMT need. Those enrolled in their health plan 15-22 months had 40% greater odds of unmet NEMT need compared to those enrolled 6-14 months, females had 24% greater odds than males, and black respondents had 83% greater odds than non-blacks. Not surprisingly, individuals in poor health experienced greater odds of unmet NEMT need ranging from 37% greater odds for individuals reporting fair/poor mental health compared to good/excellent mental health to 145% greater odds for individuals with functional limitations to those without functional limitations.

Table 3. Factors Associated with Unmet NEMT Need

Factors	Odds Ratio (95% CI)	p-value
IHAWP-WP group (Ref: MSP-FMAP group)	0.79 (0.65, 0.95)	0.01
IHAWP-MPC group (Ref: MSP-FMAP group)	0.50 (0.37, 0.66)	<.001
Enrolled in plan for 15-22 months (Ref: 6-14 months)	1.40 (1.19, 1.65)	<.001
Age 45-64 years (Ref: Age 18-44)	0.82 (0.70, 0.97)	0.02
Female (Ref: Male)	1.24 (1.05, 1.46)	0.01
White (Ref: Non-white)	0.64 (0.45, 0.90)	0.01
Black (Ref: Non-black)	1.83 (1.23, 2.73)	0.003
Hispanic (Ref: Non-Hispanic)	1.31 (0.82, 2.08)	0.25
Education > High School (Ref: High School or Less)	0.77 (0.66, 0.89)	<.001
Higher Income – Upper 50th Percentile (Ref: Lower 50th Percentile)	0.63 (0.54, 0.73)	<.001
Non metropolitan, urban residence (Ref: Metropolitan, Urban)	0.91 (0.77, 1.07)	0.24
Non metropolitan, rural residence (Ref: Metropolitan, Urban)	0.67 (0.47, 0.96)	0.03
Has any functional limitation (Ref: None)	2.45 (2.04, 2.94)	<.001
Fair/Poor Self-Reported Physical Health (Ref: Good/Very Good/Excellent)	1.58 (1.33, 1.87)	<.001
Fair/Poor Self-Reported Mental Health (Ref: Good/Very Good/Excellent)	1.37 (1.14, 1.65)	<.001
Reported 2 or more physical health conditions (Ref: 0-1 condition)	1.63 (1.38, 1.94)	<.001
Any Mental Health Condition (Ref: 0 conditions)	1.20 (1.00, 1.44)	0.05
Distance to PCP: 0.8 – 2.0 miles (Ref: 0 – 0.7 miles)	1.15 (0.97, 1.38)	0.12
Distance to PCP: Over 2.0 miles (Ref: 0 – 0.7 miles)	1.06 (0.84, 1.35)	0.62
Distance to ED: 2.0 – 6.5 miles (Ref: 0 – 1.9 miles)	0.75 (0.62, 0.90)	0.002
Distance to ED: Over 6.5 miles (Ref: 0 – 1.9 miles)	0.87 (0.68, 1.10)	0.25

Relationship of Unmet NEMT Need with Utilization of Health Care Services

Tables 4-6 provide the results of the logistic regression models predicting the likelihood of health care utilization, after accounting for unmet NEMT need, health plan status, and other characteristics. Three sets of models were fit to answer this question – one for each of the utilization types (well care visit, acute care visit, and emergency department visit).

Well care visits

Table 4 provides the model odds ratios, 95% confidence intervals, and p-values for the focal variables of unmet NEMT need, plan type, the interaction of unmet NEMT need by IHAWP-WP, plus the other covariates as they relate to whether or not a member had a well care visit in the six months prior to the survey. Interaction terms for unmet NEMT need by plan type were included in the model and the interaction of unmet NEMT need by IHAWP-WP group was statistically significant while the interaction of unmet NEMT need by IHAWP-MPC group was not. Thus, the table includes the odds ratios and associated confidence intervals for unmet NEMT need by within strata of IHAWP-WP group (Yes or No) and for IHAWP-WP group within strata of unmet NEMT need (No unmet need, Yes unmet need) in order to clarify the interaction effect.

Table 4. Factors associated with having a well care visit.

Factors	Odds Ratio (95% CI)	p-value
Interaction: Unmet NEMT need by IHAWP-WP group	--	0.02
Unmet NEMT need (Ref: no Unmet NEMT need) When IHAWP-WP = No When IHAWP-WP = Yes	 0.98 (0.70, 1.38) 0.60 (0.45, 0.78)	 NS P<.05
IHAWP – WP group (Ref: MSP-FMAP) When Unmet NEMT need = No unmet NEMT need When Unmet NEMT need = Yes	 1.39 (1.16, 1.67) 0.84 (0.56, 1.27)	 P<.05 NS
IHAWP-MPC group (Ref: MSP-FMAP)	0.99 (0.80, 1.24)	0.99
Enrolled in plan for 15-22 months (Ref: 6-14 months)	1.02 (0.90, 1.16)	0.73
Age 45-64 years (Ref: Age 18-44)	1.05 (0.92, 1.21)	0.46
Female (Ref: Male)	1.74 (1.51, 2.01)	<.001
White (Ref: Non-white)	0.96 (0.72, 1.29)	0.78
Black (Ref: Non-black)	0.89 (0.60, 1.31)	0.55
Hispanic (Ref: Non-Hispanic)	1.29 (0.85, 1.94)	0.23
Education > High School (Ref: High School or Less)	1.54 (1.36, 1.75)	<.001
Income – Upper 50th Percentile (Ref: Lower 50th Percentile)	0.95 (0.84, 1.08)	0.43
Non metropolitan, urban residence (Ref: Metropolitan, Urban)	0.86 (0.75, 0.98)	0.03
Non metropolitan, rural residence (Ref: Metropolitan, Urban)	0.98 (0.75, 1.29)	0.90
Has any functional limitation (Ref: None)	0.88 (0.75, 1.04)	0.13
Fair/Poor Self-Reported Physical Health (Ref: Good to Excellent)	0.93 (0.79, 1.10)	0.40
Fair/Poor Self-Reported Mental Health (Ref: Good/Very Good/Excellent)	0.93 (0.78, 1.11)	0.42
Reported 2 or more physical health conditions (Ref: 0-1)	1.37 (1.19, 1.57)	<.001
Reported Any Mental Health Condition (Ref: 0 conditions)	1.08 (0.92, 1.26)	0.38
Distance to PCP: 0.8 – 2.0 miles (Ref: 0 – 0.7 miles)	1.06 (0.91, 1.24)	0.44
Distance to PCP: Over 2.0 miles (Ref: 0 – 0.7 miles)	1.05 (0.86, 1.27)	0.64
Distance to ED: 2.0 – 6.5 miles (Ref: 0 – 1.9 miles)	1.07 (0.91, 1.26)	0.39
Distance to ED: Over 6.5 miles (Ref: 0 – 1.9 miles)	0.99 (0.81, 1.20)	0.88

The interaction effect suggests that the greater likelihood of obtaining a well care visit for those in the IHAWP-WP depended on whether or not an individual experienced an unmet NEMT need. Individuals in the IHAWP-WP had 39% greater odds (statistically significant) of having a well care visit when they did not have an unmet NEMT need and 16% lower odds (not statistically significant) when they did have unmet NEMT need. Conversely, when looking at the odds of a well care visit for those with unmet NEMT need within IHAWP-WP strata, individuals with an unmet NEMT need had 40% lower odds (statistically significant) of a well care visit when in the IHAWP-WP and 2% lower odds (not statistically significant) when not in the IHAWP-WP.

In addition to these findings, some demographic and health status characteristics were found to be related to having a well care visit. Individuals living in a non-metropolitan, next-to-urban area had 14% lower odds of a well care visit compared to individuals living in metropolitan areas. And, females had 74% greater odds of having a well care visit than males, individuals with higher education had 54% higher odds than those with lower education levels, and individuals with more physical health conditions had 37% higher odds compared to those with fewer physical health conditions.

Acute care visits

Table 5 provides the model odds ratio, 95% confidence interval, and p-value for the focal variables of unmet NEMT need, plan type (IHAWP-WP & IHAWP-MPC), plus the other covariates as described in the methods as they relate to whether or not a member had an acute care visit in the six months prior to the survey. Interaction terms between unmet NEMT need and plan type (IHAWP-WP, IHAWP-MPC) were not statistically significant and were therefore not included in the model results.

Table 5. Factors associated with having an acute care visit.

Factors	Odds Ratio (95% CI)	p-value
Unmet NEMT need (Ref: No Reported Unmet NEMT need)	1.16 (0.99, 1.37)	0.07
IHAWP-WP group (Ref: MSP-FMAP group)	0.82 (0.72, 0.93)	0.003
IHAWP-MPC group (Ref: MSP-FMAP group)	0.61 (0.52, 0.71)	<.001
Enrolled in plan for 15-22 months (Ref: 6-14 months)	0.98 (0.89, 1.08)	0.70
Age 45-64 years (Ref: Age 18-44)	1.32 (1.19, 1.47)	<.001
Female (Ref: Male)	1.49 (1.34, 1.65)	<.001
White (Ref: Non-white)	1.15 (0.92, 1.44)	0.23
Black (Ref: Non-black)	1.24 (0.93, 1.66)	0.15
Hispanic (Ref: Non-Hispanic)	1.49 (1.07, 2.07)	0.02
Education > High School (Ref: High School or Less)	1.08 (0.98, 1.19)	0.10
Higher Income – Upper 50th Percentile (Ref: Lower 50th Percentile)	1.08 (0.98, 1.19)	0.14
Non metropolitan, urban residence (Ref: Metropolitan, Urban)	1.02 (0.92, 1.13)	0.69
Non metropolitan, rural residence (Ref: Metropolitan, Urban)	1.30 (1.05, 1.63)	0.02
Has any functional limitation (Ref: None)	1.48 (1.30, 1.68)	<.001
Fair/Poor Self-Reported Physical Health (Ref: Good/Very Good/Excellent)	1.50 (1.32, 1.71)	<.001
Fair/Poor Self-Reported Mental Health (Ref: Good/Very Good/Excellent)	0.89 (0.78, 1.02)	0.10
Reported 2 or more physical health conditions (Ref: 0-1)	1.91 (1.72, 2.13)	<.001
Reported Any Mental Health Condition (Ref: 0 conditions)	1.18 (1.04, 1.34)	0.01
Distance to PCP: 0.8 – 2.0 miles (Ref: 0 – 0.7 miles)	0.91 (0.81, 1.02)	0.10
Distance to PCP: Over 2.0 miles (Ref: 0 – 0.7 miles)	1.09 (0.94, 1.27)	0.26
Distance to ED: 2.0 – 6.5 miles (Ref: 0 – 1.9 miles)	0.93 (0.82, 1.05)	0.26
Distance to ED: Over 6.5 miles (Ref: 0 – 1.9 miles)	0.90 (0.77, 1.05)	0.19

There was no statistically significant relationship between having an unmet NEMT need and having an acute care visit. IHAWP-WP members had 18% lower odds and IHAWP-MPC members had 39% lower odds of having an acute care visit compared to MSP-FMAP members. Older (45-64) individuals had 32% greater odds than younger (18-44) of having an acute care visit, females had 49% greater odds than males, Hispanics had 49% greater odds than non-Hispanics, and individuals in rural areas had 30% greater odds of an acute care visit when compared to individuals in metropolitan areas. In addition, being in poor health increased the odds of having an acute care visit: ranging from 18% greater odds for those reporting a mental health condition compared to no mental health condition to 91% greater odds for people reporting 2 or more physical health conditions compared to 0 or 1.

ED visits

Table 6 provides the model odds ratio, 95% confidence interval, and p-value for the focal variables of unmet NEMT need, plan type (IHAWP-WP & IHAWP-MPC), plus the other covariates as described in the methods as they relate to whether or not a member had an emergency department visit in the six months prior to the survey. Interaction terms between unmet NEMT need and plan type (IHAWP-WP, IHAWP-MPC) were not statistically significant and were therefore not included in the model results.

Table 6. Factors associated with having an emergency department visit

Factors	Odds Ratio (95% CI)	p-value
Unmet NEMT need (Ref: No Reported Unmet NEMT need)	1.45 (1.23, 1.70)	<.001
IHAWP-WP group (Ref: MSP-FMAP group)	0.72 (0.62, 0.83)	<.001
IHAWP-MPC group (Ref: MSP-FMAP group)	0.63 (0.52, 0.76)	<.001
Enrolled in plan for 15-22 months (Ref: 6-14 months)	0.96 (0.85, 1.08)	0.49
Age 45-64 years (Ref: Age 18-44)	0.66 (0.58, 0.75)	<.001
Female (Ref: Male)	1.19 (1.05, 1.35)	.007
White (Ref: Non-white)	1.35 (0.99, 1.83)	0.05
Black (Ref: Non-black)	1.96 (1.36, 2.80)	<.001
Hispanic (Ref: Non-Hispanic)	1.31 (0.87, 1.98)	0.20
Education > High School (Ref: High School or Less)	0.81 (0.72, 0.91)	<.001
Higher Income – Upper 50th Percentile (Ref: Lower 50th Percentile)	0.85 (0.76, 0.96)	.007
Non metropolitan, urban residence (Ref: Metropolitan, Urban)	1.11 (0.98, 1.26)	0.10
Non metropolitan, rural residence (Ref: Metropolitan, Urban)	1.54 (1.22, 1.96)	<.001
Has any functional limitation (Ref: None)	1.32 (1.14, 1.52)	<.001
Fair/Poor Self-Reported Physical Health (Ref: Good/Very Good/Excellent)	1.52 (1.32, 1.74)	<.001
Fair/Poor Self-Reported Mental Health (Ref: Good/Very Good/Excellent)	1.04 (0.89, 1.20)	0.65
Reported 2 or more physical health conditions (Ref: 0-1)	1.37 (1.20, 1.56)	<.001
Reported Any Mental Health Condition (Ref: 0 conditions)	1.28 (1.11, 1.47)	<.001
Distance to PCP: 0.8 – 2.0 miles (Ref: 0 – 0.7 miles)	1.03 (0.90, 1.19)	0.65
Distance to PCP: Over 2.0 miles (Ref: 0 – 0.7 miles)	1.18 (0.98, 1.42)	0.07
Distance to ED: 2.0 – 6.5 miles (Ref: 0 – 1.9 miles)	0.84 (0.72, 0.97)	0.02
Distance to ED: Over 6.5 miles (Ref: 0 – 1.9 miles)	0.66 (0.55, 0.80)	<.001

Individuals with an unmet NEMT need had 45% greater odds of an ED visit compared to those with no unmet NEMT need. In addition, females had 19% greater odds than males, black respondents had 96% greater odds than non-blacks, and those in rural areas had 54% greater odds than those in metropolitan areas of having an ED visit. Not unexpectedly, individuals in poor health had a higher likelihood of an ED visit. Individuals with any functional limitation had 32% greater odds of an ED visit compared to those with no functional limitations, those with fair to poor physical health had 52% greater odds than those with good to excellent physical health, those with 2 or more physical health conditions had 37% greater odds of an ED visit than those with 0 to 1 condition, and individuals who reported a mental health conditions had 28% greater odds of an ED visit than those who did not report any mental health conditions.

Several factors were associated with a lower likelihood of an ED visit. IHAWP-WP members had 28% lower odds and IHAWP-MPC members had 37% lower odds of an ED visit compared to MSP-FMAP members. Individuals in the older age group (45-64) had 34% lower odds of an ED visit compared to younger people (18-44). Those with more than a high school education had 19% lower odds and those with a higher income had a 15% lower odds of an ED visit. Finally, distance to the nearest ED was related to ED use, with individuals 2.0 – 6.5 miles from an ED having a 16% lower odds and those over 6.5 miles from an ED having a 34% lower odds of an ED visit than those who lived closest to their nearest ED (0-1.9 miles).

Limitations

There are some limitations to this research that should be considered when interpreting the results. First, those who chose to respond to the survey may be different from those who chose not to respond which can create biased results. In this evaluation, respondents were more likely to be older, white, and female as compared to non-respondents, regardless of plan type. Within the MSP-FMAP group, respondents were less likely to come from metropolitan areas when compared to non-respondents. Within the IHAWP-WP and IHAWP-MPC groups, respondents were more likely to be enrolled longer than non-respondents and more likely to be from metropolitan areas but less likely to be from non-metro or rural areas when compared to non-respondents. Second, survey respondents may have difficulty accurately remembering events which may introduce recall bias. This risk may not be high because of the relatively short time period for recalling events (6 months). Third, because administrative data are collected for billing and tracking purposes, they may not always accurately reflect the service provided. Finally, the logistic regression models are limited by the fact that there may be unobserved factors that differ between individuals which we are unable to adequately adjust for in the models. While this may bias our results, the direction and magnitude of any such bias cannot be well predicted.

Conclusions

There were two main questions of interest in this research, namely, do IHAWP members who do not have an NEMT benefit experience more unmet NEMT need than those who do have the benefit (i.e., traditional Medicaid state plan members) and does plan type (IHAWP or MSP) and/or unmet NEMT need have an effect on getting particular health care services? With regard to the first question, without considering other factors, the findings suggest that individuals who do have the NEMT benefit (MSP-FMAP members) experience more unmet NEMT need than those who do not (IHAWP members) and the differences (MSP-FMAP 16%, IHAWP-WP 13%, and IHAWP-MSP 6%) are statistically significant at the $p<.05$ level. After considering other factors in a logistic regression model of unmet NEMT need, these results hold with IHAWP-WP having 21% lower odds and IHAWP-MPC having 50% lower odds of unmet NEMT need compared to MSP-FMAP members. Even though they experience less unmet NEMT need, more IHAWP-WP members (22%) report usually or always needing assistance from others getting to and from health care visits when compared to MSP-FMAP members (18%).

When comparing health care utilization among the three groups, we considered three types of utilization, well care visits, acute care visits, and emergency department visits. Without considering other factors, around 15% of members, regardless of plan type, got a well care visit in the 6 months prior to the survey. When we considered multiple factors (including plan type and unmet NEMT need) in a multivariable logistic regression model predicting well care visits, there was a significant interaction effect between being in the IHAWP-WP and having an unmet NEMT need on well care visits. The likelihood of obtaining a well care visit for those in the IHAWP-WP depended on whether or not an individual experienced an unmet NEMT need. Individuals in the IHAWP-WP (compared to not being in the IHAWP-WP) had 39% greater odds (statistically significant) of having a well care visit when they did not have an unmet NEMT need and 16% lower odds (not statistically significant) when they did have unmet NEMT need. Conversely, when looking at the odds of a well care visit for those with unmet NEMT need (compared to those without an unmet NEMT need) within the IHAWP-WP strata, individuals with an unmet NEMT need had 40% lower odds (statistically significant) of a well care visit when in the IHAWP-WP and 2% lower odds (not statistically significant) when not in the IHAWP-WP. In other terms, for individuals not in IHAWP-WP, regardless of unmet NEMT status, about 14% experienced a well care visit. Yet, for individuals in the IHAWP-WP, 12% of those with an unmet need for NEMT had a well care visit compared to 18% of those without an unmet NEMT need (statistically significant difference).

With regard to acute care visits, without considering other factors, over 60% of MSP-FMAP and IHAWP-WP members had an acute care visit while just around 50% of IHAWP-MPC had at least one in the 6 months prior to the survey. When we considered plan type, unmet NEMT need, and other factors in a multivariable logistic regression model predicting acute care visits, there was no significant interaction effect between being in the IHAWP-WP and having an unmet NEMT need. Unmet NEMT need was not statistically associated with obtaining an acute care visit. However, those in the IHAWP-WP had 18% lower odds and IHAWP-MPC members had 39% lower odds of an acute care visit compared to MSP-FMAP members, independent of unmet NEMT need and after adjusting for other model factors.

Without considering other factors, almost 30% of MSP-FMAP members had at least 1 visit to the ED which was significantly higher than either IHAWP-WP members (20%) or IHAWP-MPC members (16%). When we

considered plan type, unmet NEMT need, and other factors in a multivariable logistic regression model predicting emergency department visits, there was no significant interaction effect between being in the IHAWP-WP and having an unmet NEMT need. Individuals with an unmet NEMT need had 45% greater odds of an emergency department visit, independent of plan type, and after adjusting for other model factors. And, those in the IHAWP-WP had 28% lower odds and IHAWP-MPC members had 37% lower odds of an emergency department visit compared to MSP-FMAP, independent of unmet NEMT need, and after adjusting for the other factors in the model.

At first glance, these results on health care utilization (particularly with regard to well care visits), coupled with the fact that IHAWP-WP members self-report worse health, may suggest that having an unmet need for NEMT and not having the NEMT benefit (i.e., being in the IHAWP-WP) leads to members in need of care not being able to obtain care. However, it is worth pointing out that those with the benefit (MSP-FMAP members) experienced more unmet NEMT need than those in the IHAWP-WP. Therefore, without considering the experiences surrounding why individuals have an unmet NEMT need in more detail, it could be premature to reach that conclusion.

When we asked those with an unmet NEMT need for the main transportation-related reason for not being able to get to a health care visit, the most common reason in all three plan types was that the person who usually takes them to visits was not available (MSP-FMAP: 45%, IHAWP-WP: 53%, IHAWP-MPC: 44%]. Having a car that broke down (MSP-FMAP: 28%, IHAWP-WP: 15%, IHAWP-MPC: 26%) and other problems such as transportation-related expenses (i.e., cost of gas, bus fare, cab fare, parking, or paying a friend or relative for a ride), lack of informal support (i.e., not having a friend or relative available to drive), or health issues interfering with the ability to seek care (i.e., not feeling well enough to walk or drive) (MSP-FMAP: 21%, IHAWP-WP: 18%, IHAWP-MPC: 21%) were also cited as reasons. There was also some indication from the qualitative responses in the comments that there was a lack of awareness of and some dissatisfaction with the TMS NEMT brokerage program. Further research into these questions is needed to be able to fully understand the causes for unmet NEMT need, how to better promote access to NEMT, and how barriers to transportation affect access to needed health care services.

Appendices

Appendix A - Survey Instrument

Appendix B – Summary of Open-Ended Comments

HEALTH PLAN SURVEY

This survey asks about your experiences with your health plan. This information is being collected by the Public Policy Center at the University of Iowa and will be used to give policymakers an idea of how well the health plan is meeting your needs and how things can be improved. If you have any questions about this survey, please call 1-866-363-1984.

Survey instructions: Answer each question by marking the box to the left of your answer.

You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:

☐ Yes
☐ No ➔If No, Go to Question 4

If you make a mistake, please **cross out** the incorrect answer and **circle** the correct answer.

When you have finished this survey, please fold it and return it in the enclosed envelope (no stamp required). If there is a question that you are uncomfortable answering, feel free to skip to the next question. Thank you!

YOUR HEALTH CARE in the LAST 6 MONTHS

Today's Date: ___ ___/___ ___/___ ___ ___ ___
(month) (day) (year)

1. In the last 6 months, was there a time when you needed a check-up or routine care of any kind? Do not include times when you needed care right away in a clinic, emergency room, or doctor's office.

[1]☐ Yes
[2]☐ No ➔**If No, Go to Question 4**

2. In the last 6 months, was there any time when you needed a check-up or routine care but could not get it for any reason?

[1]☐ Yes
[2]☐ No ➔**If No, Go to Question 4**

3. What is the main reason you were not able to get a check-up or routine care when you needed it? Choose only one.

[1]☐ I couldn't afford the care
[2]☐ Health plan wouldn't approve/pay for care
[3]☐ Doctor refused to accept my insurance
[4]☐ Doctor didn't speak my language
[5]☐ I couldn't get transportation to the doctor
[6]☐ I couldn't take time off work/get child care
[7]☐ I didn't know where to go to get care
[8]☐ The wait took too long
[9]☐ Other (write in):_____

USUAL SOURCE OF CARE

4. Is there a place that you usually go to when you are sick or need advice about your health?

[1]☐ Yes
[2]☐ No ➔**If No, Go to Question 6**

5. What kind of place do you go to most often for your medical care? Choose only one.

[1]☐ Community or public health clinic
[2]☐ Family physician's office
[3]☐ Specialist physician's office
[4]☐ Hospital emergency room
[5]☐ Hospital outpatient clinic
[6]☐ Some other place: _____

6. A personal doctor is the person you would see if you need a check-up, want advice about a health problem, or get sick or hurt. Do you have a personal doctor?

[1]☐ Yes
[2]☐ No

EMERGENCY ROOM CARE

7. In the last 6 months, how many times did you go to an emergency room (ER) to get care for yourself?

[0]☐ None ➔**If None, Go to Question 10**
[1]☐ 1 time
[2]☐ 2
[3]☐ 3
[4]☐ 4
[5]☐ 5 to 9
[6]☐ 10 or more times

8. Do you think the care you received <u>at your most recent visit</u> to the ER could have been provided in a doctor's office?

[1]☐ Yes
[2]☐ No

9. What was the <u>main</u> reason you did not go to a doctor's office or clinic for the care you received <u>at your most recent visit</u> to the ER? <u>Choose only one</u>.

[1]☐ I did not have a doctor or clinic to go to
[2]☐ My insurance plan would not cover the care if I went to a doctor's office or clinic
[3]☐ My doctor, nurse, or other health care provider told me to go to an ER for this care
[4]☐ My doctor's office or clinic was open, but I could not get an appointment
[5]☐ My doctor's office or clinic was not open when I needed care
[6]☐ I had transportation problems getting to a doctor's office or clinic
[7]☐ My health problem was too serious for the doctor's office or clinic
[8]☐ Other (write in):_____

TRANSPORTATION

10. Are you a licensed driver?

[1]☐ Yes
[2]☐ No

11. How many licensed vehicles were owned or available for regular use by members of your household during the last 6 months?

_____ number of vehicles

12. Is there a public transit system in your area?

[1]☐ Yes
[2]☐ No ➔**If No, Go to Question 14**
[3]☐ Don't know ➔ **Go to Question 14**

13. Have you used public transportation (such as a bus or government-provided transit) for any reason in the past year?

[1]☐ Yes
[2]☐ No

14. When you need to get health care, what is the type of transportation you use <u>MOST OFTEN</u> to get to your visit? <u>Choose only one.</u>

[1]☐ I drive myself, using *my own* vehicle
[2]☐ I drive myself, using *someone else's* vehicle
[3]☐ Someone else (such as a friend, neighbor, or family) drives me, using *my own* vehicle
[4]☐ Someone else (such as a friend, neighbor, or family) drives me, using *their* vehicle
[5]☐ I take a taxi cab
[6]☐ I take public transportation (such as a bus or government-provided transit)
[7]☐ I bike or walk
[8]☐ I do not have a reliable way to get to my health care visits

15. In the last 6 months, how often did you need assistance from other sources (such as friends, family, public transportation, etc.) to get to your health care visit?

[1]☐ Never
[2]☐ Sometimes
[3]☐ Usually
[4]☐ Always

16. In the last 6 months, was there any time when you needed transportation to or from a health care visit but <u>could not get it</u> for any reason?

[1]☐ Yes
[2]☐ No ➔**If No, Go to Question 18**

17. Thinking of <u>the most recent time</u> you could not get to a health care visit because of transportation, what was the <u>main</u> reason you could not get there? <u>Choose only one.</u>

[1]☐ My car broke down
[2]☐ The person who usually takes me was not available
[3]☐ The transit system was not available
[4]☐ Other transportation problem (write in):
_____

18. In the last 6 months, how much, if at all, have you worried about your ability to pay for the cost of transportation to or from a health care visit?

[1]☐ Never
[2]☐ Sometimes
[3]☐ Usually
[4]☐ Always

ABOUT YOU

19. In general, how would you rate your overall <u>physical</u> health?

[1]☐ Excellent
[2]☐ Very good
[3]☐ Good
[4]☐ Fair
[5]☐ Poor

20. In general, how would you rate your overall <u>mental and emotional health</u> now?

[1]☐ Excellent
[2]☐ Very good
[3]☐ Good
[4]☐ Fair
[5]☐ Poor

21. Do you have a physical, mental, or emotional condition that seriously interferes with your ability to work, attend school, or manage your day-to-day activities?

[1]☐ Yes
[2]☐ No

22. Do you have a physical, mental, or emotional condition that seriously interferes with your independence, participation in the community, or quality of life?

[1]☐ Yes
[2]☐ No

23. Because of a physical, mental, or emotional condition, do you need help with your routine needs, such as everyday household chores, shopping, or doing other necessary business?

[1]☐ Yes
[2]☐ No

24. Because of a physical, mental, or emotional condition, do you need the help of other persons with your personal care needs, such as eating, bathing, dressing, or getting around the house?

[1]☐ Yes
[2]☐ No

25. Do you <u>now</u> have any health conditions that have lasted or are expected to last for <u>at least 3 months</u>? *Choose all that apply.*

[1]☐ Arthritis
[2]☐ Asthma
[3]☐ Back or neck problems
[4]☐ Bronchitis, emphysema, COPD, or other lung problems
[5]☐ Cancer, other than skin cancer
[6]☐ Coronary artery disease
[7]☐ Dental, tooth, or mouth problems
[8]☐ Diabetes
[9]☐ High blood pressure
[10]☐ Kidney disease
[11]☐ Liver disease
[12]☐ Overweight / obese
[13]☐ Stroke
[14]☐ Behavioral or emotional health problems (i.e., depression, anxiety, etc.)
[15]☐ Any other chronic health condition (write in):_____

26. What is your age?

- [1] ☐ 18 to 24
- [2] ☐ 25 to 34
- [3] ☐ 35 to 44
- [4] ☐ 45 to 54
- [5] ☐ 55 to 64
- [6] ☐ 65 or older

27. Are you male or female?

- [1] ☐ Male
- [2] ☐ Female

28. What is the highest grade or level of school that you have completed?

- [1] ☐ 8th grade or less
- [2] ☐ Some high school, but did not graduate
- [3] ☐ High school graduate or GED
- [4] ☐ Some college or 2-year degree
- [5] ☐ 4-year college graduate
- [6] ☐ More than 4-year college degree

29. Are you of Hispanic or Latino origin or descent?

- [1] ☐ Yes, Hispanic or Latino
- [2] ☐ No, not Hispanic or Latino

30. What is your race? *Choose one or more.*

- [1] ☐ White
- [2] ☐ Black or African American
- [3] ☐ Asian
- [4] ☐ Native Hawaiian or Other Pacific Islander
- [5] ☐ American Indian or Alaska Native
- [6] ☐ Other (write in):_____

Is there anything else you would like to tell us about your ability to get to or from your health care visits?

_____

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THANK YOU!

Please return the completed survey in the postage-paid envelope.

Appendix B – Summary of Open-Ended Comments

Overview

At the end of the survey, respondents had the opportunity to leave a comment. Respondents were given the prompt, "Is there anything else you would like to tell us about your ability to get to or from your health care visits?" Of the 8,255 (2,055 MSP-FMAP; 2,980 IHAWP-WP; 3,220 IHAWP-MPC) survey respondents, 1,449 chose to leave a written comment. Of those who left a comment, 354 were MSP-FMAP members, 598 were IHAWP-WP members and 497 were IHAWP-MPC members.

The comments fell into six general themes, 1) Health Status Interference 2) Material Hardship 3) Scheduling 4) Type of Transportation and 5) Issues with their Health Plan (not transportation related), and 6) Positive Experiences. These six themes and their subcategories are described in detail later.

Methods

In order to interpret the information respondents provided in the open comments section of the survey, the content of the comments were categorized and labeled, or coded, using NVivo software. Coding the comments from the survey assists in the systematic identification and analysis of recurring themes.

In many instances, a comment from an individual respondent covered more than one theme. An example of this is demonstrated in the following comment from an IHAWP-MPC member: "*After having shoulder surgery last July, I was bedridden for 6 months and unable to drive to my medical and physical therapy appointments. My Medicaid did not offer transportation and I did not know anyone from this new neighborhood. I did not have the money for a cab and they did not have buses in my area to take me into the big city for the appointments. The medical staff assume everyone has family or friends to take you back and forth, but we don't. Never Assume! Thank you!"* The respondent described experiences with two themes: physical health interference and material hardship related to transportation. Within the 1,449 respondent comments, there were 2,419 pieces of material that represented distinct themes.

Transportation Themes

Health Status Interference

189 respondents reported a physical or mental health condition that directly interfered with their ability to get to regular appointments. For example, one respondent wrote, "*I had very hard time getting there as I can't take myself, can't load self, etc. Couldn't find help to take me as everyone has jobs and unable to take off work to take me and stay all day."*

Material Hardship

311 respondents left comments about some kind of material hardship interfering with the receipt of health care. Fifty-two comments described material hardship unrelated to transportation, such as phone access, prescription and appointment co-pays, paying for childcare during appointments, debt and other bills. A IHAWP-WP member describes, *"Where I am assigned to won't see me because of past due bill that I paid and they still refuse to see me. It's the closest and I can reach it easiest location."*

Of the 311 comments about material hardship, 209 describe costs related to transportation. Respondents reported several costs related to going to and from the doctor's office, including gas money, compensating drivers, vehicle maintenance, license and registration fees, parking, and bus passes. For example, *"When I can't get a friend or family member to give me a ride I usually take the city bus, but sometimes I don't have money to ride the bus and that's when I miss my appointment."*

Underutilization of Transportation Services

125 MSP members left a comment about costs related to transportation. In some instances, survey respondents wrote about struggling with costs that are eligible for reimbursement within their healthcare plan. One MSP-FMAP respondent wrote, "*Most of my appts are with doctors in Ottumwa which is an hour drive one way, so getting a ride that far and money for gas and food if all day appts such is even more difficult."* There are several possibilities for this underutilization that appeared in respondent comments.

1) Members are not aware they are eligible for reimbursement or transportation services:
"It would be nice to be reimbursed for mileage to and from doctor appointments, so that I may continue to seek healthcare for my conditions."
"It is hard getting to and from visits without a reliable car or reliable family or friends willing to help out."
One member with experience using TMS Management Group (Iowa Medicaid's NEMT transportation brokerage program) supported the possibility that members are not aware of the NEMT benefit, saying:
"*I have also used TMS. Through them I can get a monthly bus pass if I have 2 or more appointments throughout the month. It seems many people are unaware of TMS."*

2) Members may not have the money to pay for gas up front
"Stress, no transportation most of the time. Need gas money if I can find a ride to pay them."

3) Members had a bad experience using TMS and/or are more comfortable riding with personal connections
"Try to use TMS management services for mileage reimbursement. They make things as complicated as possible. They do not know their own rules and are ALMOST always losing the papers sent in via postal mail/fax/email. It is extremely frustrating to deal with them."

Scheduling

225 respondents described difficulties with scheduling, which included making appointments for doctor's visits, public transportation, and conflicts with work, school, childcare availability, and personal driver schedules. For example, *"My ride can only take me on days off work or after 4:45 pm and doctors don't stay open late enough or not long enough on Saturdays, and the clinic takes 2-3 weeks to get appointment."*

Type of Transportation

Formal Transportation

Eighty-six respondents commented on experiences using formal transportation, such as public transit, taxis, volunteer transportation agencies, or the Iowa Medicaid program's reimbursement agency. For example, an IHAWP-WP member describes using the bus after appointments, *"Almost every visit is a long wait to see doctor. Waiting up to 1 1/2 hours sometimes too late to catch the bus. Bus not running after 5PM."*

Personal Transportation

255 respondents described experiences using private transportation, such as driving themselves, asking a family member, friend, or neighbor for a ride. A vast majority (n=223) of these comments portrayed an inconveniencing and unreliable process to secure a ride to an appointment. For example, *"My niece takes me to clinic when she doesn't have classes, but sometimes she's busy so I can't make it or I try to find a different person to help me."*

104 IHAWP-WP and IHAWP-MPC members left comments requesting assistance with transportation and related expenses. For example, *"It would be nice to have transportation to your appointment. Because like myself I have a car but no license so I struggle and sometimes miss appointments because of transportation so it would be nice if at your doctor's office you could also get help with someone picking you up and dropping you off at home after your doctor's visit."* And *"If I could get a bus pass it would help."*

Themes unrelated to transportation

Issues with their Health Plan

462 respondents left comments about ways they thought their healthcare plan could be improved, or how their needs were not being met. Topics that were covered included: assistance in reading medical documents, language interpreters, appointment reminders, and requests for more information on the plan and how to use it. For example, "*I do not have difficulty getting to health care visits, but I'm not sure what is covered under my plan and what is not. I have not received any information in almost a year, when they sent something saying I was being changed to whatever my plan is presently. I was told more information would be sent soon and never received anything else. So I just show my card and have to wait for the place (providers) where I have my appt. to check. Would be nice if I knew ahead of time what care is covered and what is not, including medical, eye glasses, chiropractic, dental, etc."*

Generally, these comments fell into four subcategories 1) Access 2) Continuity, 3) Coverage, and 4) Perceptions of Stigma.

Access

181 comments were related to access issues, like whether providers accept Medicaid, and access to after-hours or weekend care. For example, "*I have used the Wellness Plan on numerous occasions and am happy with the services I have received including dental. I have had to go to the ER a few times due to the clinic being closed at the time and have never had a problem."* And ""*I don't have very many options when it comes to seeing a doctor, most don't accept new patients. The doctors I could see I don't like. I'm not comfortable at all. So I have to go to the ER when I get desperate."*

Continuity

Fifty-one comments were related to issues with continuity, like having to switch doctors or clinics to suit their plan. A IHAWP-WP member describes the importance of continuity, *"I have been going to the same P.A. for 15 years for my exams. Going to a different provider because of the Iowa Wellness Plan is so scary to me that I don't want to go. I wish people with Aspergers had the option of keeping their doctor even if they're not on the list."*

Coverage

171 respondents described instances in which their insurance did not cover needed services. This theme includes: co-pays and prescription payments, behavioral health services, weight loss assistance, vision care, and dental care. For example, *"Would be nice if the plan paid for all my prescriptions, not just most of them. Doctor*

says I've needed glasses for several years. The plan doesn't pay for them and I can't afford them. Aside from these 2 things I'm very satisfied with the coverage I am provided with."

Dental

119 respondents left comments about issues with dental care. For example, "*No transportation problems at this current time. The questions in this survey aren't geared very well to include issues concerning the Dental Wellness Plan. The DWP's tiered approach incorporating waiting periods for certain dental procedures seriously jeopardizes tooth health. Example: an emergency tooth pain requiring a root canal cannot receive a crown for at least a year, allowing further decay or tooth breakage to occur.*"

Uncertainty about upcoming transition to Medicaid Privatization

Sixteen respondents left comments concerning changes to their care during the state's Medicaid privatization transition. For example, *"Didn't feel need to complete this since Governor has interfered and privatizing this - I am upset and have fears of unknown - What will happen? How does it work then? He isn't saying - Doesn't care and says it will save money? Can you help explain this to me?"*

"Gov. Branstad wants to "privatize" our State healthcare. I see no advantage in this at all. We already have excellent care in this State. My co-pays are little to none, I can see who ever I want, my meds are paid for, and my care is not limited. I also have dental and chiropractor is covered if I want to go. I don't know how you could do better than that. I think by "privatizing" it our care will go down hill and I think it will cost a lot more money. Tell him NOT to do it. No one in my situation wants to see that happen. It is a very bad idea! We already have good, affordable, healthcare."

Perceptions of Stigma

Fifty-six respondents commented on experiences in which they felt they were being treated poorly because of their insurance status. For example, "*I notice a difference in the way some (not all) doctors, nurses and receptionists treat me when they see what insurance I have. It's like they don't care as much about the care I receive. Some just act rude!"*

Positive Experiences with Health Plan and/or Transportation

Over two hundred (n=223) respondents left comments indicating high satisfaction with their health plan and/or transportation situation. Many respondents left positive comments about their insurance plan, improved access, and quality care.

Experiences with NEMT brokerage program

Six MSP-FMAP members left comments about positive experiences using the transportation services provided through TMS. For example, *"I get a bus pass from TMS monthly if I need it. Also they pick me up and bring me home from my family doctor who is not on bus route. I deeply appreciate this and helps me a lot with my health care. Thanks to all who help me as I suffer from anxiety and depression and getting to and from and the ability to get good health care means everything to me."*

Health Plan

Many members reported ease when using their health insurance plan, getting to appointments, and receiving care. For example, *"I have had no problems with my insurance. It is always easy to use and my regular MD accepts it"* and "*To the best of my knowledge, I have never had a problem ever getting to an appointment. Overall, very satisfied of how my health program is working for me. This health program has been a real blessing to me!"*

Access

Members reported improvements in access through wider provider networks and affordability. For example, "*The old program I had to drive to Des Moines to a doctor. Round trip over 180 miles. This new program is much better. Living in a small rural county I still have to travel to see a specialist but even that is half the drive as before.*" and *"This health plan is a "God send" to me. I would have to go totally into debt and welfare if it didn't exist. Thank you!"*

For some members, IHAWP facilitated access to health services that were unattainable before their enrollment. For example, an IHAWP-WP member said, *"I have never had insurance before. It was very nice to be checked out. I had never had a mammogram or any test like it. Thank you so, so much."*

Quality Care

Many members reported being treated with dignity and respect while receiving high quality care. An IHAWP-MPC member described their experience, saying, "*I have been fortunate to have amazing doctors who have given me the best care and treatment. They make things easy to understand, are extremely qualified in their fields of doctor, and go above and beyond to make sure my health and recovery is important. I appreciate all they have done and continue to do to make me better. Thank you."*