

Interim Report December 2016



Iowa Health and Wellness Plan Evaluation Interim Report

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Executive Summary

Enrollment trends

- After an initial rapid growth period during the first five months of the IHAWP program, (in part due to auto-enrollment of IowaCare members), enrollment in WP and MPC climbed more slowly and steadily through December 2015. From January 1, 2014 to December 31, 2015, enrollments rose 91% from 61,895 initially to nearly 118,512 in WP and 143% from 15,483 to 37,609 in MPC.
- There is obvious churn (i.e., members switching between or out of programs) during the first two years of the IHAWP, however most of this movement is for members moving in and out of IHAWP and Medicaid overall rather than between programs.

Access to Care

- Access to a medical provider for either preventive or ambulatory care, as measured by the proportion of members with a visit, is lower for WP and MPC members than FMAP members but higher than for IC members. MPC rates appear to be increasing over the first two years of the program, while the rates in WP remained relatively stable.
- Screening rates are mixed for women in the WP and MPC programs compared to FMAP. Though the rates of mammograms to screen for breast cancer were higher, the rates for cervical cancer screening were lower. Cervical cancer screening rates were also lower than breast cancer screening rates for members of all three programs. This may be due to the improved access to mammograms with mobile mammography.
- Access to care for members in WP and MPC diagnosed with Diabetes is comparable to that for members in FMAP as measured by the rates of Hemoglobin A1c and LDL-C testing.
- The rates of non-emergent ED visits and follow-up ED visits are lower for WP and MPC than for FMAP indicating that WP and MPC members may have better access to ambulatory/ primary care or are less reliant on the ED in general.

Quality of Care

• Quality of care for this evaluation is measured primarily by the rate of admission for COPD/ asthma and rate of admission for CHF, both of which are components of AHRQ's Preventive Quality Indicators (PQI). The rates for WP and MPC are higher than in FMAP. A finding which may be related to the higher proportion of members over 40 in these two programs.

Background

On January 1, 2014 Iowa implemented the Iowa Health and Wellness Plan (IHAWP), which expanded health coverage for low income Iowa adults age 19-64, not previously eligible for Medicaid. This report presents some mid-term results of an independent evaluation of the IHAWP program conducted by the University of Iowa Public Policy Center (UI PPC), in coordination with the Iowa Medicaid Enterprise and the US Centers for Medicare and Medicaid Services (CMS). These results focus on population characteristics and member churn, outcomes and cost analyses, using Medicaid administrative enrollment and claims data.

The Iowa Health and Wellness Plan

There were two components to the program: the Iowa Wellness Plan (WP), a program operated by the Iowa Department of Human Services that provided health coverage for uninsured Iowans from 0-100% of the Federal Poverty Level (FPL) and the Marketplace Choice Program (MPC), a premium support program for Iowans from 101-133% of FPL. More information regarding the formulation and implementation of the Iowa Health and Wellness Plan can be found online at http://dhs.iowa.gov/ime/about/initiatives/iowa-health-and-wellness-plan.

The IHAWP program was modified in significant ways in its first 2 years, which affected the two portions of the program, provider networks from whom members could receive services, and also potentially affected the outcomes evaluated in this report. The first major change was when CoOportunity Health withdrew as an option for members of the MPC portion of the IHAWP at the end of November 2014.¹ Approximately 9,700 CoOportunity Health members were automatically transitioned to WP providers on December 1, 2014, however; they retained their designation as MPC members within the program. IHAWP members who were not in CoOportunity Health remained in Coventry, the other private plan available to MPC members.

During calendar year 2015 the state decided to place all Medicaid members, including all IHAWP members, into one of three managed care plans beginning January 1, 2016. Due to a three-month delay in implementation of the MCO model of care, IHAWP members previously enrolled with Coventry were placed into the traditional Medicaid Fee-For-Service program effective December 31, 2016 until the Medicaid Managed Care Organizations (MCOs) were able to begin accepting members on April 1, 2016. IHAWP members not in Coventry remained in the traditional Medicaid program until April 1, 2016.

Effective January 1, 2017 the MPC program was not renewed so all MPC members were rolled into the WP program. Wellness Plan now covers Iowans not categorically eligible for Medicaid with income from 0-133% FPL. Members are enrolled with one of three MCOs-United Health Care, AmeriHealth Caritas, or AmeriGroup. Results from the managed care component of IHAWP will be available in next year's report.

There were other activities occurring in the health care system in Iowa during the two year period of this evaluation that could have affected some of the outcomes in this report. For example, Iowa participated in the first two years of a 4 year State Innovation Model project implementing statewide system changes designed to increase the proportion of providers in value-based purchasing (VBP) contracts, increase members covered by VBP contracts, enhance health information technology (HIT) to provide alerts regarding emergency department use, and improve population health through targeted model projects and statewide health strategies. These activities that were being implemented statewide, along with the MCO contracting for Medicaid, makes it more difficult to identify changes in utilization, cost or health that are uniquely associated with IHAWP.

Study Populations

Within the IHAWP evaluation there are seven distinct groups of adult health plan members being assessed. Two of these are the study groups, Wellness Plan and Marketplace Choice members, 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

Iowa Marketplace Choice Plan Changes. Iowa Department of Human Services. November 2014. Available at: <u>https://dhs.iowa.gov/sites/default/files/CoOpTransition_FAO_11052014.pdf</u>. Accessed July 2, 2015.

adult members in the: 1) Family Medical Assistance Program (FMAP), 2) Supplemental Security Income (SSI) program, and 3) IowaCare² members. Analyses involving survey data utilize adult members of the following programs when appropriate: 1) the Medicaid State Plan who were eligible due to income (MSP-IE), 2) Medicaid State Plan members eligible due to disability (MSP-SSI), and 3) IowaCare members. For the purposes of this report, we are using only FMAP, SSI, IowaCare, WP and MPC as study groups, as no survey results are included.

FMAP – Family Medical Assistance Program

The FMAP comparison group is composed of adult parents of children eligible for Medicaid. Nonemployed 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.

SSI – Supplemental Security Income

The SSI comparison group is composed of Medicaid State Plan members enrolled due to a disability determination. The FPL for these members may range from 0 to 200%. There are approximately 25,000 adults who will have at least one month of data in the study period. The only payment structure for these members is fee-for-service once they are enrolled due to a disability determination, however; they may have one to several months in the HMO or PCCM components prior to the determination. Enrollees who may be or become dually enrolled in Medicaid and Medicare will be removed from these analyses.

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 IHAWP 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 in 2013.

- 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. While IHAWP only covers uninsured adults up to 133% FPL (instead of 200% FPL), it does provide coverage for prescription drugs, dental care and has 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.

² IowaCare is a program for uninsured adults in Iowa up to 200% of the FPL. More information about the PPC's previous evaluation of the IowaCare program is available at: <u>http://ppc.uiowa.edu/health/study/evaluation-iowacare-program</u>

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 (i.e., had incomes above 133% FPL). 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

As mentioned, 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 often 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 who entered through the Health Care Marketplace on their own or were directed to the Marketplace through a Medicaid caseworker or a navigator at their local physician office or public health office (i.e., not auto-enrolled from IowaCare). People who enrolled in IHAWP through the Marketplace were more likely to be female, white, ages 22-40 years and live in a more urban location.

	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

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

Enrollment patterns

After initially rapid growth due to auto-enrollment of IowaCare members, enrollment in WP and MPC climbed more slowly and steadily through December 2015. Enrollments rose 91% from 61,895 initially to nearly 118,512 in WP and 143% from under 15,483 to 37,609 in MPC.

Figure 3 presents a visualization of the churn occurring in Medicaid programs from the 1st quarter 2013 through the 4th quarter 2015. This figure includes any member enrolled for at least 1 month in any Medicaid program from CY 2013 through CY 2015. Within the figure lines moving away from the program from left to right indicate a movement out of the program, while lines moving toward the program from left to right indicate movement into the program. The thickness of the line is related to the number of members making a move. A thicker line indicates more people are moving. For example, the line portraying movement from IC to WP is thicker than the line portraying movement from IC to MPC because more members moved to WP than MPC.

Within the figure FMAP member numbers remain stable, as does the number of members in other Medicaid programs including SSI, and the shift in number of members between IowaCare and IHAWP. After the first quarter of IHAWP the movement between programs seems to have stabilized, as would be expected, the first quarter lines show the bulk of IowaCare members moving to Wellness Plan, a smaller number moving to Marketplace choice and a nearly identical **number** losing coverage within the Medicaid and expansion programs. After the first two quarters of the expansion, the movement between programs seems to stabilize with members moving between programs and in and out of Medicaid at consistent rates.



Figure 2. Monthly enrollment in IHAWP by plan-all enrollees CY 2014-15

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Figure 3. Churn in Medicaid programs, 1st Quarter 2013 through 4th Quarter 2015



IC=IowaCare

Other=Other Medicaid programs, including SSI

IE=Income Eligible

WP=Wellness Plan

MPC=Marketplace Choice

IHAWP member characteristics

The demographic characteristics of IHAWP members, regardless of length of enrollment, are provided in Table 3. Members can be categorized into more than one program in a year's time, therefore, the designation as Wellness Plan (WP) or Marketplace Choice (MPC) is made with the preponderance of eligible months, with Wellness Plan winning ties. For example a member enrolled in WP for 2 months in CY 2014 and MPC for 4 months in CY 2014 would be classified as MPC, while another member enrolled in WP for 2 months and MPC for 2 months in CY 2014 would be classified as WP.

	Enrolled inEnrolled inWellnessWellnessPlanPlanCY 2014CY 2015N (%)N (%)		Enrolled in Marketplace Choice CY 2014 N (%)	Enrolled in Marketplace Choice CY 2015 N (%)	
Gender					
Female	58,212 (49%)	73,187 (49%)	20,209 (59%)	29,411 (59%)	
Male	60,845 (51%)	75,025 (51%)	14,121 (41%)	20,061 (41%)	
Race					
White	76,660 (64%)	96,396 (65%)	22,827 (67%)	33,241 (67%)	
Black	9,976 (8%)	12,955 (9%)	1,932 (6%)	2,977 (6%)	
American Indian	1,662 (1%)	2,126 (1%)	355 (1%)	483 (1%)	
Asian	2,224 (2%)	2,996 (2%)	842 (3%)	1,327 (3%)	
Hispanic	3,955 (3%)	5,717 (4%)	1,593 (5%)	2,405 (5%)	
Pacific Islander	520 (<1%)	792 (<1%)	299 (1%)	451 (1%)	
Multiple-Hispanic	1,130 (1%)	1,727 (1%)	372 (1%)	603 (1%)	
Multiple-Other	919 (1%)	1,377 (1%)	260 (1%)	433 (1%)	
Undeclared	22,011 (19%)	24,126 (16%)	5,850 (17%)	7,552 (15%)	
Age					
18-21 years	9,436 (8%)	15,883 (11%)	2,163 (6%)	3,442 (7%)	
22-30 years	30,175 (25%)	39,225 (27%)	8,822 (26%)	13,814 (28%)	
31-40 years	25,232 (21%)	31,993 (22%)	8,490 (25%)	12,727 (26%)	
41-50 years	24,029 (20%)	26,849 (18%)	6,474 (19%)	8,739 (18%)	
51 and over	30,185 (25%)	34,262 (23%)	8,381 (24%)	10,750 (22%)	
County rural/urban status					
Metropolitan	73,314 (62%)	90,271 (61%)	20,237 (59%)	29,097 (59%)	
Non-metropolitan, urban	40,706 (34%)	51,264 (35%)	12,271 (36%)	17,724 (36%)	
Non-metropolitan, rural	5,037 (4%)	6,677 (5%)	1,822 (5%)	2,651 (5%)	
Total	119,057	148,212	34,330	49,472	

 Table 3. Demographic characteristics of IHAWP members CY 2014 and CY 2015

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.

IHAWP study group characteristics

Medicaid members encompass a wide variety of programs. Often, a member may move through more than one program over the course of one or more years. We created study groups that would allow us to have the maximum amount of accurate data for each members. For example, during a

given study year some members will move into reduced coverage programs. The Family Planning Waiver is one example of a reduced coverage program. Members who are 64 years old will move into the Medicare program making their data unavailable. In addition, members may move between programs in a way that enhances coverage for certain types of care such as the Home and Community Based Waivers or the Integrated Health Home for adults with Severe Mental Illness or children with Severe Emotional Disturbance. Our study group of 292,000 Medicaid members limits the effects of this churn by retaining members whose data falls into full coverage programs. The demographics for the IHAWP study groups are listed in Table 4.

	Enrolled in Wellness Plan CY 2014	Enrolled in Wellness Plan CY 2015	Enrolled in Marketplace Choice CY 2014	Enrolled in Marketplace Choice CY 2015
	N (%)	N (%)	N (%)	N (%)
Gender				
Female	44,645 (48%)	57.374 (48%)	16,833 (58%)	24,916 (59%)
Male	47,932 (52%)	61,238 (52%)	12,023 (42%)	17,601 (41%)
Race				
White	59,669 (62%)	75,003 (63%)	18,914 (66%)	28,173 (66%)
Black	8,297 (9%)	10,923 (9%)	1,696 (6%)	2,616 (6%)
American Indian	1,197 (1%)	1,613 (1%)	295 (1%)	408 (1%)
Asian	2,001 (2%)	2,738 (2%)	754 (3%)	1,220 (3%)
Hispanic	3,429 (4%)	5,009 (4%)	1,439 (5%)	2,204 (5%)
Pacific Islander	457 (<1%)	675 (1%)	271 (1%)	403 (1%)
Multiple-Hispanic	931 (1%)	1,431 (1%)	325 (1%)	542 (1%)
Multiple-Other	747 (1%)	1,122 (1%)	231 (1%)	384 (1%)
Undeclared	17,849 (19%)	20,098 (17%)	4,931 (17%)	6,567 (15%)
Age				
18-21 years	8,212 (9%)	18,001 (15%)	1,970 (7%)	4,381 (10%)
22-30 years	24,937 (27%)	31,114 (26%)	8,005 (28%)	12,356 (29%)
31-40 years	19,682 (21%)	24,393 (21%)	7,512 (26%)	10,751 (25%)
41-50 years	18,087 (20%)	21,115 (18%)	5,558 (19%)	7,436 (18%)
51 and over	21,659 (23%)	23,989 (20%)	5,811 (20%)	7.593 (18%)
County rural/urban status				
Metropolitan	56,926 (62%)	71,987 (61%)	17,113 (59%)	24,992 (59%)
Non-metropolitan, urban	31,669 (34%)	41,171 (35%)	10,230 (36%)	15,240 (36%)
Non-metropolitan, rural	3,982 (4%)	5,454 (5%)	1,513 (5%)	2,285 (5%)
Total	92,577	118,612	28,856	42,517

Table 4. Demographic characteristics of IHAWP study group membersCY 2014 and CY 2015

Methodology

Data Availability and Primary Collection

Data Access

The Public Policy Center (PPC) maintains the Medicaid Data Repository repository of Iowa Medicaid administrative data for its use in evaluating programs for the Iowa Medicaid Enterprise (IME). The PPC has worked closely with the State of Iowa to ensure that the assurances needed to obtain **these** 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 report draws almost exclusively from data in the Medicaid Data Repository, encompassing over 100 million claims, encounter and eligibility records for all Iowa Medicaid **members** for the period January 2000 through the present. Data are assimilated into the repository monthly. 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.

Previous results

Reports containing previous analyses and results can be found at <u>http://ppc.uiowa.edu/health/study/</u>evaluation-iowas-medicaid-expansion-iowa-health-and-wellness-plan.

Previously reported measures that have not been updated are not in this report. The measures listed below are not included in this report due to previous reporting. These measures were reported to the Iowa Department of Human Services in the Iowa Health and Wellness Plan Evaluation Interim Report dated December 2015 or a separate report evaluating the Healthy Behavior Program which was completed in 2016 and can be found at http://ppc.uiowa.edu/publications/healthy-behaviors-incentive-program-evaluation .

Access to Care

- Measure 1 Access to and unmet need for urgent care
- Measure 2 Access to and unmet need for routine care
- Measure 3 Timely Appointments, Care, and Information
- Measure 4 After-hours care
- Measure 5 Specialist care
- Measure 6 Prescription medication
- Measure 7 Preventive care

- Measure 8 Behavioral/emotional care
- Measure 9 Barriers to care due to transportation

Churn

- Measure 10 Proportion who had to change primary care physician when joining the Wellness Plan or Marketplace Choice
- Measure 11 Continuity of care and satisfaction if they need to change to a new primary care physician when enrolled with a new plan
- Measure 12 Regular source of care Personal Doctor

Quality of Care

- Measure 13 Self-reported receipt of flu shot
- Measure 14 Emergency department use
- Measure 15 Rate of hospital admissions in past 6 months
- Measure 16 Rate of 30 day hospital readmissions
- Measure 17 Provider communication
- Measure 18 Self-management support
- Measure 19 Attention to mental/emotional health (Comprehensive care)
- Measure 20 Shared decision-making regarding medications
- Measure 21 Care coordination
- Measure 22 Rating of personal doctor
- Measure 23 Rating of all health care received
- Measure 24 Rating of health care plan

Cost

- Likelihood of a prescription
- Prescription cost
- Likelihood of an ED visit
- ED visit cost

Premiums and Cost Sharing

- Measure 25 Awareness of Premium
- Measure 26 Ease of Obtaining Annual Physical Exam
- Measure 27 Hardship of Monthly Premium
- Measure 28 Awareness of the copayment
- Measure 29 Awareness of non-emergent condition
- Measure 30 Copayment as a disincentive
- Measure 31 Medical assistance with smoking and tobacco use

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://prc.uiowa.edu/publications/evaluation-provider-adequacy-iowa-health-and-wellness-plan-during-first-year .

Areas of Emphasis

- Non-emergency Medical Transportation
- Behavioral/emotional health services
- Churning
- Copayment for non-emergency use of the emergency department
- Healthy Behavior incentives

A separate report evaluating the Healthy Behavior Program was completed in 2016 and can be found at <u>http://ppc.uiowa.edu/publications/healthy-behaviors-incentive-program-evaluation</u>

Evaluation Changes

Study Groups

In the original evaluation proposal Medicaid members who were eligible due to a disability determination were considered a comparison group. This group was chosen because IowaCare members, many of whom were to transition into IHAWP, were more likely to have chronic illness than members in Medicaid who were eligible primarily due to income. The disability determination group has been removed from the evaluation comparison groups because IHAWP eligible individuals have the option of requesting the designation "medically frail" which allows them to remain in the IHAWP program, but receive the same services and waiver options as members eligible through disability determination. Member deemed medically frail will be analyzed separately for the 2018 report. We will utilize Medicaid members eligible due to a disability determination as the comparison group for those analyses.

Statistical Methods

Though we proposed means testing when comparing population-based rates and proportions in the evaluation proposal, we have chosen to present the numbers from the study populations without any adjustment or statistical testing. The numbers, rates and proportions presented in this report are based on the study populations which are very close, in demographic characteristics, to the actual IHAWP population, IowaCare and Family Medical Assistance Program membership. We have excluded members who have the preponderance of their eligibility in the Medicaid in programs with reduced coverage (i.e., Family Planning Waiver) or Medicare, which precludes us from accessing the majority of their health care utilization and cost experience through the Medicaid claims. Additionally, these numbers are compared over a three year period, so though unadjusted means do not provide for an adequate cross sectional comparison, we are more confident in the comparison of changes in trends over time.

Though we have begun the job of modelling outcomes to determine the factors related to members' accessing services such as well adult care, we are still developing the approach that is best suited to the Iowa experience and data. The appropriate risk adjustment strategies and methods for incorporating monumental policy changes in the Medicaid program during the IHAWP demonstration period are two significant challenges. Risk adjustment strategies for a non-elderly, primarily healthy population are difficult to apply and interpret. We have formed a methods roundtable to address this issue for the final report.

Measures Removed for Cause

A number of the measures originally proposed have been removed either due to the inability to meet the protocol requirements with the existing data or due to small numbers of members in the denominator or numerator leading to unacceptable variation in rates over time. These measures are listed below.

• Measure 32 Follow-up after hospitalization for mental illness (Measures 2A and 2B)

Measure 2 has been removed from the evaluation due to extremely small numbers. Across the four comparison groups we were able to identify 198 hospitalizations for mental illness over the 3 years 2013-2015. This results may be due to most members with mental illness severe enough to warrant hospitalization being moved into the medical frail group or the existing Integrated Health Home program, both of which remove them from our analyses as these programs provide additional access for members with mental illness.

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

Due to small numbers of women with a mammogram in the FMAP and IowaCare groups the modelling has been removed from the evaluation.

• Measure 33 Flu shots in past year (Measures 11A and 11B)

Measures 11A and 11B have been removed from the evaluation as data for these measures

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 34 Chlamydia screening in past year

This measure was removed due to the difficulty of reliably determining whether members were 'sexually active'.

• Measure 35 Anti-depressant medication management (Measures 17A and 17B)

Both measure 17A and 17B have been removed from the evaluation due to most members with mental illness being moved into the medically frail group or the existing Integrated Health Home program, both of which remove them from our analyses and provide additional access for members with mental illness.

• Measure 36 Cholesterol management for patients with cardiovascular conditions (Measures 35A and 35B)

Measures 35A and 35B have been removed from the evaluation due to extremely low numbers of members who have cardiovascular conditions severe enough to be included in the measures.

• Measure 37 Admission rate for COPD, diabetes short-term complications, CHF, and asthma

Removed due to lack of admissions for diabetes short-term complications.

• Measure 38 Admission rate for diabetes short-term complications (Measures 40A and 40B)

Removed due to lack of admissions for diabetes short-term complications.

• Measure 39 Pharmacotherapy management of COPD exacerbation (Measures 34A and 34B)

Removed due to an inability to determine whether hospitalization was for exacerbation of COPD.

Measures Still Under Construction

There are many measures and modelling constructs that are still under development. The following is a list of these measures.

- Measure 40 Mental health utilization (Measures 18A and 18B)
- Measure 41 EPSDT utilization (Measures 24A and 24B)
- Measure 42 Avoidance of antibiotic treatment in adults with acute bronchitis
- Measure 43 Use of appropriate medications for people with asthma
- Measure 44 Medication management for people with asthma
- Measure 45 Inpatient utilization-general hospital/acute care
- Measure 46 Plan "all cause" hospital readmissions

Changes to Timeline

The original timeline for the evaluation had the provision of a survey report and provider network analysis as part of this evaluation report. Due to the Governor's mandate to move all Medicaid members, including those in the expansion, into a managed care organization by January 1, 2016, there has been a 12 month period of transition and uncertainty for members from October 2015-September 2016. During this time, some IHAWP members were transitioned from the QHP to fee-for-service to an MCO. Surveying members during this transition, is not a priority so the surveys were moved to the spring of 2017 in consultation with the IDHS and CMS. In addition, provider network analyses are not particularly useful during a time of transition due to the difficulty of determining which providers are active and the care patterns of members. We are in the process of acquiring and cleaning the MCO provider lists with the hope that this analyses will be available in the final report.

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. A few measures are still under development and some, after a more thorough assessment of the available data, are no longer appropriate.

Access to Care

Access to primary care

This measure indicates the proportion of adults who have accessed preventive or ambulatory services within the measurement year. We utilize the Adults' Access to Preventive/Ambulatory Heath Services (AAP) measure protocol from HEDIS 2016.

Results

Tables 5 and 6 provide the rates for Adults' Access to Preventive/Ambulatory Health Services. The members included in the tables are as follows:

- A. Calendar year 2015 includes members who were eligible for either FMAP, WP or MPC for at least 11 months in calendar year 2015
- B. Calendar year 2014 includes members who were eligible for either FMAP, WP or MPC for at least 11 months in calendar year 2014
- C. Calendar year 2013 includes members who were eligible for either FMAP for at least 11 months in calendar year 2013, IowaCare (IC) for at least 11 months in 2013 and in WP or MPC in calendar year 2014.

The data in Tables 5 and 6 indicate that members in IC 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 during CY 2014, however, these rates were more comparable in CY2015 with MPC members more likely to have a visit than in CY2014. None of the three groups (IC, 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 the measurement year and 11 months in the year before the measurement year

Age		FMAP 2013	IC->WP 2013	FMAP 2014	WP 2014	FMAP 2015	WP 2015
20-44 years	Number	14,706	7,407	16,556	13,099	17,065	21,765
	%	86%	51%	87%	76%	87%	76%
45-64 years	Number	1,494	7,553	2,049	12,083	2,386	16,438
	%	85%	65%	86%	84%	88%	84%
Total	Number	16,200	14,960	18,606	25,182	19,451	38,203
	%	86%	58%	87%	80%	87%	79%

Table 6. Adults' access to preventive/ambulatory health services by program and age for MPC members eligible for at least 11 months in the measurement year and 11 months in the year before the measurement year

Age		FMAP 2013	IC->MPC 2013	FMAP 2014	MPC 2014	FMAP 2015	MPC 2015
20-44 years	Number	14,706	1,469	16,556	3,534	17,065	5,864
	%	86%	59%	87%	68%	87%	74%
45-64 years	Number	1,494	1,4,63	2,049	2,345	2,386	3,849
	%	85%	71%	86%	77%	88%	83%
Total	Number	16,200	3,932	18,606	5,879	19,451	9,713
	%	86%	64%	87%	71%	87%	77%

The DID model utilized to determine program effects on access to Well Adult Visits will be used for Adults' Access to Preventive/Ambulatory Health Services in the next report.

Breast cancer screening

The percent of women 50-64 who had a mammogram to screen for breast cancer is presented in this measure. 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.

The HEDIS Breast Cancer Screening (BCS) protocol is used for this measure. The protocol is cross listed as NQF 0031 and CMS' Adult core measure #3.

Results

Table 7 and Figure 4 provide the proportion of women ages 50-64 who had a mammogram in the four study groups. Rates were the highest among women in WP and MPC. Women in IC had the lowest rate. This provides one indication that women in WP and MPC are more likely to engage in preventive behaviors.

 Table 7. Percent of women ages 50-64 who had a mammogram CY 2013 and CY 2014

Age		FMAP 2013	IC- >WP 2013	IC- >MPC 2013	FMAP 2014	WP 2014	MPC 2014	FMAP 2015	WP 2014	MPC 2014
50-64	Number	122	904	221	144	1,529	298	149	1,461	394
years	%	40%	34%	36%	42%	52%	50%	47%	59%	66%



Figure 4. Percent of women ages 50-64 with a mammogram by program and year

Cervical cancer screening

The percent of women 21-64 who were screened for cervical cancer is provided in this measure. The HEDIS Cervical Cancer Screening (CCS) protocol is used for this measure. It is also cross listed as NQF 0032 and CMS' Adult core measure #4. Women included in the cervical cancer screening rate had to be eligible for at least 11 months in the measurement year and in each of the two years preceding the measurement year.

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. Rates for cervical cancer screening (Table 8, Figure 5) were highest for women in FMAP across all years and lowest in **IC**. Though women in WP had screening rates comparable to FMAP in 2014, this was not sustained in 2015. Women in MPC had screening rates of 20% across both years. These rates are very low, however; women may be obtaining this care in places that do not bill Medicaid such as free medical clinics.

Table 8. Percent of women ages 21-64 who had cervical cancer screeningCY 2013 and CY 2014

Age		FMAP 2013	IC- >WP 2013	IC- >MPC 2013	FMAP 2014	WP 2014	MPC 2014	FMAP 2015	WP 2015	MPC 2015
21-64	Number	4,385	1,490	376	4,204	3,876	985	4,263	4,345	1,477
years	%	30%	12%	14%	26%	25%	20%	25%	19%	20%

Figure 5. Percent of women ages 21-64 with cervical cancer screening by year and program



Comprehensive diabetes care: Hemoglobin A1c

There are seven components of comprehensive diabetes care.

- Hemoglobin A1c (HbA1c) testing
- HbA1c poor control (>9.0%)
- HbA1c control (<8.0%)

- Eye exam (retinal) performed
 Medical attention for nephropathy
 BP control (<140/90 mm Hg)
- HbA1c control (<7.0%) for a selected population*

Most of these measure protocols require more than administrative data. One component of Comprehensive Diabetes Care that can be calculated using administrative data is the percent of members with type 1 or type 2 diabetes who had Hemoglobin A1c testing during the year. Hemoglobin A1c testing provides evidence that the glucose levels for members with diabetes are being monitored. The HEDIS Comprehensive Diabetes Care – Hemoglobin A1c is used for this measure. The protocol is also found at NQF 0057 and as CMS' Adult core measure #19. For this measure members with diabetes had to be eligible for 11 months in both the measurement year and the year prior to the measurement year. Once again, this excludes members in WP and MPC who were newly covered through the expansion and not previously covered in IC.

Results

WP and MPC consistently have a higher proportion of members diagnosed with diabetes than FMAP, as might be expected as many of these adults were originally in the IC 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 (Table 9).

The rate of Hemoglobin A1c in IC members with diabetes was 82% in 2013 leading us to expect a similar rate in WP and MPC during 2014. Though rates of Hemoglobin A1c for MPC members with diabetes were relatively high, the rates never reached the level of Hemoglobin A1c testing in IC members who were eligible for MPC.

Table 9. Proportion of population age 19-64 identified as having diabetesCY 2013 - CY 2015

		FMAP 2013	IC- >WP 2013	IC- >MPC 2013	FMAP 2014	WP 2014	MPC 2014	FMAP 2015	WP 2015	MPC 2015
Proportion with diabe- tes	Number %	602 4%	1,088 9%	241 10%	674 5%	1,239 10%	246 12%	789 5%	2,348 10%	504 9%
Hemoglobin A1c rate	Number %	519 86%	972 89%	221 92%	567 84%	1,109 90%	210 85%	654 83%	2,122 90%	445 88%

Figure 6. Proportion of members diagnosed with diabetes by program and year





Figure 7. Proportion of population age 19-64 identified as having diabetes

Comprehensive diabetes care: LDL-C screening

A second component of Comprehensive diabetes care that is easily computed using administrative data is the percent of members with type 1 or type 2 diabetes who had LDL-C screening. The HEDIS Comprehensive Diabetes Care – LDL-C protocol is used for this measure. LDL-C screening provides evidence that members with Diabetes are being screened for cholesterolemia, a frequent comorbidity with Diabetes. The protocol is also found at NQF 0063 and as CMS' Adult core measure #18. For this measure members with diabetes had to be eligible for 11 months in both the measurement year and the year prior to the measurement year. Once again, this excludes members in WP and MPC who were newly covered through the expansion and not previously covered in IC.

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 (Table 10). The IC 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. Rates of LDL-C screening in WP and MPC members with diabetes were higher than the rates for FMAP members with diabetes for both years.

		FMAP 2013	IC- >WP 2013	IC- >MPC 2013	FMAP 2014	WP 2014	MPC 2014	FMAP 2015	WP 2015	MPC 2015
Proportion with diabe- tes	Number %	602 4%	1,088 9%	241 10%	674 5%	1,239 10%	246 12%	789 5%	2,348 10%	504 9%
LDL-C rate	Number %	382 63%	435 40%	92 38%	436 65%	830 67%	169 69%	501 63%	1,718 73%	348 69%

Table 10. Proportion of population age 19-64 identified as having diabetes with LDL-C screening, CY 2013 through CY 2015



Figure 8. Proportion of population age 19-64 identified as having diabetes with HbA1c

Annual monitoring for members on persistent medication

For this measure the percent of members on a persistent medication (ACE/ARB, digoxin, diuretic, anti-convulsant) who were monitored is calculated. Due to the small numbers of members on persistent medications, this measure is limited to monitoring for members on diuretics. The protocol for this measure is found in HEDIS Annual Monitoring for Members on Persistent Medication (MPM) or as NQF 2371. To be considered on a persistent medication a member must have had at least 180 days of the prescription medication supplied within the year. This measure does not include IC members, as the program did not provide prescription drug coverage.

Results

Table 11 and Figure 9 illustrate the proportion of members on a Diuretic for at least 180 days during the year who have received monitoring through a Serum Potassium or Serum Creatinine level. Since the IC program did not cover prescription medications, rates for CY 2013 are only computed for FMAP members. Initial rates of screening for WP were comparable to or higher than the rates of screening for FMAP members in CY 2014 and CY 2015. Rates of screening for MPC members were initially lower than screening rates for FMAP members, however; screening rates rose to comparable levels by CY 2015.

		FMAP 2013	IC- >WP 2013	IC- >MPC 2013	FMAP 2014	WP 2014	MPC 2014	FMAP 2015	WP 2015	MPC 2015
Proportion on Diuretic	Number %	396 2%	N/A	N/A	435 2%	1,558 5%	366 4%	546 2%	2,449 5%	628 5%
Monitoring Rate	Number %	321 81%	N/A	N/A	354 81%	1,370 88%	253 69%	460 84%	2,106 86%	505 80%

Table 11. Proportion of population on Diuretic medications screened for Potassium andCreatinine, CY 2013 through CY 2015



Figure 9. Proportion of population on Diuretic medications that were monitored

Non-emergent ED use

The number of non-emergent ED visits per 1,000 member months is calculated using all members in the program. The NYU ED algorithm is used to determine the degree to which the ED visits in a given year for a given program were non-emergent.

Results

The number of non-emergent ED visits per 1,000 members in FMAP is much higher than either IC group in 2013. This is due, in part, to the IC program policy of reimbursing only ED visits that occurred at the University of Iowa Health Care in Iowa City or Broadlawns Medical Center in Des Moines, leaving many ED visits out of the Medicaid claims data. Members in WP and MPC did not have these restrictions leading to an increase in the number of non-emergent ED visits we could identify, however; the numbers were still well below those for FMAP members.

Table 12. Number of non-emergent visits per 1,000 member months, CY2013 throughCY2015

	FMAP 2013	IC- >WP 2013	IC- >MPC 2013	FMAP 2014	WP 2014	MPC 2014	FMAP 2015	WP 2015	MPC 2015
Number of Non-emergent visits/1,000 member months	23.2	7.7	7.9	23.0	13.4	8.6	22.2	13.8	10.4

Follow-up ED visits

The percent of members with an ED visit within the first 30 days after index ED visit may indicate lack of access to primary care for ED follow-up and ongoing management of an acute problem originally treated in the ED. We developed a measure for ED follow-up based on the HEDIS follow-up for mental health care.

Results

Rates of ED visits and follow-up ED visits were highest for FMAP members in all years, while they were the lowest for IC members. This measure is challenging. Because IC 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 IC members received additional care at non-covered EDs while in IC, a rare occurrence in the other programs. This deflates the IC ED rate artificially. Without the IC 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 2014 or CY 2015.

Table 13. Proportion of population age 19-64 identified as having an index ED visit with at least one readmission within 30 days, CY 2013 through CY 2015

		FMAP 2013	IC-> WP 2013	IC-> MPC 2013	FMAP 2014	WP 2014	MPC 2014	FMAP 2015	WP 2015	MPC 2015
Propor- tion with index ED visit	Number %	9,466 68%	4,962 41%	884 52%	10,117 67%	10,362 67%	1,736 61%	10,291 71%	15,813 70%	2,961 66%
Propor- tion with follow-up ED visits	Number %	2,744 29%	986 20%	137 16%	2,827 30%	2,528 24%	328 19%	2,878 28%	3,696 23%	529 18%

Ambulatory Care

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 year. The protocol for HEDIS Ambulatory Care (AMB) is used for this measure.

Results

Table 14. Number of ED visits and number of ambulatory care visits per 1,000 membermonths for members 19-64 years of age, CY 2013-CY 2015

	FMAP 2013	IC-> WP 2013	IC-> MPC 2013	FMAP 2014	WP 2014	MPC 2014	FMAP 2015	WP 2015	MPC 2015
ED visits/1,000 member months	106.4	35.0	32.9	104.1	71.6	47.3	103.5	73.8	53.0
Ambulatory care visits/1,000 member months	398.9	193.6	215.7	422.3	334.0	256.5	452.4	353.0	327.6

Quality of Care

Admission rate for COPD

The Prevention Quality Indicators (PQI) include the number of discharges for COPD and asthma per 100,000 Medicaid members. We utilized the AHRQ WinQI calculator to identify the hospitalizations reflecting COPD/asthma admission. The number of admissions was then calculated in three ways.

- 1) As number of admissions per 100,000 members regardless of number of months of enrollment.
- 2) As number of admissions per 100,000 members who were enrolled for at least 11 months of the year
- 3) As number of admissions per 100,000 full-time equivalent members, with FTE calculated at total numbers of months of enrollment for all members regardless of number of months enrolled divided by 12.

Results

Rates of admission for COPD/asthma were much higher for WP and MPC than for FMAP or IC across the two years of the program. The rates decrease for both WP and MPC in the second year of the program, suggesting that the admissions in the first year may include first time diagnoses of the chronic conditions during and acute phase. Numbers of admissions are relatively small causing the rates to fluctuate more widely over time.

Age	FMAP 2013	IC-> WP 2013	IC-> MPC 2013	FMAP 2014	WP 2014	MPC 2014	FMAP 2015	WP 2015	MPC 2015
Members regard- less of enrollment period									
Number of admis- sions	6	7	1	5	58	11	5	58	15
Admission rate/100,000	10.8	19.0	15.0	8.8	62.7	38.1	8.8	48.9	35.3
Members with at least 11 months of enrollment in year									
Number of admis- sions	6	7	1		25	3	1	3	9
Admission rate/100,000	29.3	27.2	21.8	9.1	78.6	36.4	4.5	80.9	71.4
FTE members									
Number of admis- sions	6	7	1	5	58	11	5	58	15
Admission rate/100,000	14.1	21.3	17.0	10.9	85.4	53.7	10.8	67.1	49.4

Table 15. Number of admissions for COPD/asthma per 100,000 members, CY 2013-CY 2015

Figure 10. Number of admissions for COPD/asthma per 100,000 members by program and year



Admission rate for CHF

The Prevention Quality Indicators (PQI) include the number of discharges for CHF per 100,000 Medicaid members. We utilized the AHRQ WinQI calculator to identify the hospitalizations reflecting COPD/asthma admission. The number of admissions was then calculated in three ways.

- 1) As number of admissions per 100,000 members regardless of number of months of enrollment.
- 2) As number of admissions per 100,000 members who were enrolled for at least 11months of the year

3) As number of admissions per 100,000 full-time equivalent members, with FTE calculated at total numbers of months of enrollment for all members regardless of number of months enrolled divided by 12.

Results

The rate of admission for CHF rises in the FMAP for CY 2015, a finding that is somewhat disconcerting as it may indicate a change in coding or payment rather than an actual change in member chronic disease. WP and MPC members are admitted for CHF at rates comparable to the FMAP rate in CY 15. However, we caution that these results are based on a very small number of admissions making the rates fluctuate widely over time.

Table 16. Number of admissions for CHF per 100,000 members, CY 2013-CY 2015

Age	FMAP 2013	IC-> WP 2013	IC-> MPC 2013	FMAP 2014	WP 2014	MPC 2014	FMAP 2015	WP 2015	MPC 2015
Members regardless of enrollment period									
Number of admis- sions	3	8	0	3	20	4	11	30	10
Admission rate/100,000	5.4	21.7	0	5.3	21.6	13.9	19.4	25.3	23.5
Members with at least 11 months of enrollment in year									
Number of admis- sions	2	4	0	1	9	0	5	13	2
Admission rate/100,000	9.8	15.5	0	4.5	28.3	0	22.5	27.0	15.9
FTE members									
Number of admis- sions	3	8	0	3	20	4	11	30	10
Admission rate/100,000	7.0	24.4	0	6.5	29.4	19.5	.7	34.7	32.9

Figure 11. Number of admissions for CHF per 100,000 members by program and year



Well adult visit

The Well adult visit measure calculates the percent of members with a well adult visit as defined by 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.

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 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 17. 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	IC-> WP 2013	IC-> MPC 2013	FMAP 2014	WP 2014	MPC 2014	FMAP 2015	WP 2015	MPC 2015
20-44	Number	3,754	1,358	337	4,110	4,972	1,192	4,340	6,709	1,878
years	%	22%	10%	13%	22%	29%	23%	22%	23%	24%
45-64	Number	249	754	206	413	5,716	860	515	5,965	1,435
years	%	14%	7%	10%	17%	40%	28%	19%	30%	31%
Total	Number	4,003	2,112	543	4,523	10,688	3,052	4,855	12,674	3,313
	%	21%	8%	12%	21%	34%	25%	22%	26%	26%



Figure 12. Adults' access to preventive health services by program, age and year

Whether member had well adult visit

The DID framework is combined with multiple modeling frameworks to assess the robustness of the parameter estimation. Normal and logistic generalized estimating equation (GEE) models which account for within-individual correlation are fit. Additionally, a normal regression with individual random effects, a conditional logistic regression matching on individual is fit to further assess robustness. Equation (1) below expresses the normal GEE DID model and equation (2) the logistic GEE DID model:

$$Y_{it} = \mu + \gamma_{\text{FMAP}} + \gamma_{\text{SSI}} + \gamma_{\text{WP}} + \gamma_{\text{MPC}} + T_t + \gamma T_{\text{MPC*post}} + \gamma T_{\text{Wp*post}} + X'_{it}\beta + \varepsilon_{it} \quad (1)$$

$$logit(Y_{it}) = \mu + \gamma_{\text{FMAP}} + \gamma_{\text{SSI}} + \gamma_{\text{WP}} + \gamma_{\text{MPC}} + T_t + \gamma T_{\text{MPC*post}} + \gamma T_{\text{WP*post}} + X'_{it}\beta \quad (2)$$

where Y_{it} is an indicator for member *i* receiving a wellness visit in time period *t*, the γ terms are the program effects, T_t indicates the time period, γT_{MPC^*post} is the MPC specific DID estimate, γT_{WP^*post} the WP specific DID estimate, $X'_{it}\beta$ captures all other predictors controlled for, and ε_{it} the random error. The additional predictors controlled for include sex, race, UIC, age indicators, FPL indicators, months in a MHH indicators, months in a IHH indicators, had delivery, and chronic illnesses. Variations of all models were fit using only a subset of additional predictors, excluding having a delivery and chronic illnesses. Additionally, variations of all models are fit with the DID estimate for MPC and WP pooled into a single DID estimate; this is achieved by replacing $\gamma T_{MPC^*post} + \gamma T_{Wp^*post}$ with $\gamma T_{(MPC \text{ or } WP)^*post}$ in equations (1) and (2).

Due to the nature of the models the GEE approach can estimate effects that are unchanging over time, such as sex and chronic illness status. Both the normal regression with individual random effects and conditional logistic regression matching on individual cannot estimate these. The robustness check solely focused on the DID parameter estimation.

Four different types of Models were fit as a robustness check.

- 1) Linear: OLS with person effects and robust standard errors
- 2) Linear: Generalized Estimating Equations (GEE)
- 3) Logistic: Conditional logistic regression with robust standard errors
- 4) Logistic: Generalized Estimating Equations (GEE)

Each model was fit using the full set and a reduced set of predictors.

- 1) Subset of predictors: sex, race, UIC, age, FPL, MHH, IHH, program, post indicator, DID estimates
- 2) All predictors: Subset of predictors + pregnancy, illness indicators

Each combination of the 4 model types and 2 sets of predictors were first fit with a separate DID estimator for WP/MPC and then fit with a pooled DID estimator for WP/MPC.

Results

Regardless of the model, DID estimator(s) always indicated that the likelihood of getting a wellness visit increased for those in WP or MPC over time, with a larger increase for WP than MPC (Figure 12). Regardless of model type and predictors used regression estimates are nearly identical across linear models and very similar across logistic models (Tables 18 & 19).



Figure 13. Proportion of members with a well adult visit by program Proportion Wellness Visit by Medicaid Group

Page 32 Return to TOC Table 18. Regression estimates for linear/logistic GEE models for each combination of full/reduced predictors and pooled/ separated DID effect

Response	Linear	Linear	Linear	Linear	Logistic	Logistic	Logistic	Logistic
Predictors	Subset	Subset	All	All	Subset	Subset	All	All
DID Estimate	Separated	Pooled	Separated	Pooled	Separated	Pooled	Separated	Pooled
Parameter	Beta	Beta	Beta	Beta	Beta	Beta	Beta	Beta
Intercept	0.0544***	0.0554***	0.0176***	0.0186***	-2.5889***	-2.5807***	-2.9796***	-2.9704***
Had delivery	-	-	-0.0465***	-0.0467***	-	-	-0.5487***	-0.5508***
Chronic Illnesses								
Attention Deficit Disorder	-	-	0.0115	0.0115	-	-	0.1168*	0.1172*
Acute Myocardial Infarction	-	-	-0.0329**	-0.0329**	-	-	-0.3203**	-0.3217**
Anxiety	-	-	-0.0049	-0.0049	-	-	-0.0352	-0.0358
Asthma	-	-	-0.0007	-0.0007	-	-	0.0025	0.0024
Coronary Artery Disease	-	-	-0.0079*	-0.0079*	-	-	-0.0622	-0.0618
COPD Emphysema	-	-	-0.0148***	-0.0149***	-	-	-0.1188**	-0.1192**
Cerebrovascular Event	-	-	-0.0146*	-0.0145*	-	-	-0.1209*	-0.1203*
Developmental Disorder	-	-	0.0485**	0.0483*	-	-	0.4053**	0.404**
Dementia	-	-	-0.0358	-0.0358	-	-	-0.3706	-0.3695
Depression	-	-	-0.0036	-0.0036	-	-	-0.0341	-0.0339
Diabetes	-	-	-0.0344***	-0.0344***	-	-	-0.2754***	-0.275***
Hypertension	-	-	0.0031	0.0031	-	-	0.0287	0.0291
Hypercholesterolemia	-	-	0.0499***	0.0499***	-	-	0.4032***	0.4021***
Liver Disease	-	-	-0.0022	-0.0022	-	-	-0.0145	-0.0155
Mental Health Problem	-	-	0.0332***	0.0332***	-	-	0.2979***	0.2975***
Mood Disorder	-	-	-0.0023	-0.0024	-	-	-0.0061	-0.0054
Mental Retardation	-	-	0.1100***	0.1101***	-	-	0.8398***	0.8405***
Obseity	-	-	0.0337***	0.0337***	-	-	0.2853***	0.2847***
Parkinson's MS	-	-	0.0086	0.0087	-	-	0.0870	0.0877
Pervasive Developmental Disorder	-	-	0.087***	0.087***	-	-	0.7075***	0.7058***
Pervsistent Mental Health Disorder	-	-	-0.0074	-0.0074	-	-	-0.0644	-0.0662
Renal Failure	-	-	-0.0234***	-0.0233***	-	-	-0.2141***	-0.214***
Substance Abuse Problem	-	-	-0.0018	-0.0019	-	-	-0.0113	-0.0122
Schizophrenia	-	-	0.0585***	0.0585***	-	-	0.5209***	0.5204***

FPL								
FPL equal 0	-	-	-	-	-	-	-	-
FPL between 1-37	0.0227***	0.0224***	0.0221***	0.0218***	0.1739	0.1712	0.1698***	0.1671***
FPL between 38-75	0.0187***	0.0177***	0.0165***	0.0156***	0.1547	0.1479	0.1399***	0.1331***
FPL between 76-100	0.0265***	0.0246***	0.026***	0.0242***	0.2112	0.1984	0.2115***	0.1988***
FPL between 101-133	0.0268***	0.0147*	0.0269***	0.0149*	0.2141	0.1428	0.2148***	0.1427**
FPL greater than 134	0.0208*	0.0204*	0.0200*	0.0197*	0.1820	0.1803	0.1793**	0.1776*
Female Indicator	0.047***	0.0472***	0.0429***	0.0431***	0.3967	0.3968	0.3672***	0.3673***
In an IHH \geq 6 months	0.0549***	0.055***	0.0274***	0.0274***	0.4866	0.4870	0.2537***	0.2541***
In an MHH \geq 6 months	-0.0213***	-0.0213***	-0.0372***	-0.0372***	-0.2198	-0.2200	-0.3639***	-0.3638***
UIC	0.0182***	0.0183***	0.0212***	0.0212***	0.1753	0.1754	0.2012***	0.2012***
Time period (Post)	-0.0337***	-0.0336***	-0.0348***	-0.0348***	-0.3715	-0.3714	-0.3897***	-0.3897***
Age Indicators								
Age between 19-21	0.0073	0.0074	0.0158**	0.0159**	0.0581	0.0586	0.1388*	0.1391*
Age between 22-30	-0.0136***	-0.0135***	-0.006*	-0.0059	-0.1372	-0.1357	-0.0667*	-0.0653*
Age between 31-44	-	-	-	-	-	-	-	-
Age between 45-64	0.0183***	0.0182***	0.0179***	0.0178***	0.1587	0.1575	0.1517***	0.1505***
Race								
American Indian	-0.0162	-0.0165	-0.0101	-0.0104	-0.1583	-0.1592	-0.1099	-0.1111
Asian	0.0403***	0.0406***	0.0542***	0.0544***	0.2928	0.2928	0.4322***	0.4321***
Black	0.0014	0.0011	0.0095*	0.0093*	0.0131	0.0119	0.0810*	0.0796*
Hispanic	0.0047	0.0048	0.0058	0.0059	0.0394	0.0397	0.0518	0.0521
Multiple-Hispanic	-0.0126	-0.0125	-0.0117	-0.0116	-0.1134	-0.1113	-0.1058	-0.1038
Multiple-other	0.0106	0.0108	0.0169	0.0170	0.1103	0.1136	0.1752	0.1785
Pacific Islander	-0.0031	-0.0027	0.0000	0.0004	-0.0167	-0.0220	0.0181	0.0140
Unknown	0.0214***	0.0209***	0.0235***	0.023***	0.1750	0.1710	0.1956***	0.1916***
White	-	-	-	-	-	-	-	-
Program Indicators								
FMAP	0.0008	0.0001	0.0175***	0.0168***	0.0369	0.0322	0.2231***	0.2182***
SSI	-	-	-	-	-	-	-	-
IC -> MPC	-0.0091**	-0.0596***	0.0018	-0.0487***	-0.0751	-0.5877	0.0537	-0.4615***
IC -> WP	-0.0331***	-0.0229***	-0.0218***	-0.0116***	-0.3847	-0.2755	-0.2563***	-0.147***
DID Estimates								
MPC DID Estimator	0.156***	-	0.1576***	-	1.2362***	-	1.2689***	-
WP DID Estimator	0.2815***	-	0.283***	-	2.0869***	-	2.1302***	-
MPC/WP DID Estimator	-	0.2609***	-	0.2625***	-	1.9457***	-	1.9872***

Page 34 Return to TOC Table 19. Regression estimates for linear OLS with person specific effects and robust standard errors/conditional logistic regression with robust standard error models for each combination of full/reduced predictors and pooled/separated DID effect

Response	Linear	Linear	Linear	Linear	Logistic	Logistic	Logistic	Logistic
Predictors	Separated	Separated	Pooled	Pooled	Separated	Separated	Pooled	Pooled
DID Estimate	Subset	All	Subset	All	Subset	All	Subset	All
Parameter	Beta							
Intercept	0.1206***	0.1223***	0.1253***	0.1269***	-	-	-	-
Had delivery	-	-0.0421***	-	-0.0424***	-	-0.5465***	-	-0.5480***
UIC	-0.0323*	-0.0330*	-0.0319*	-0.0319*	-0.1937	-0.1856	-0.1826	-0.1745
Age Indicators								
Age between 19-21	-0.0379	-0.0368	-0.0386	-0.0374	-0.4076**	-0.3656**	-0.4017**	-0.3595**
Age between 22-30	-0.0259	-0.0251	-0.0254	-0.0245	-0.2831*	-0.2635	-0.2775*	-0.2580
Age between 31-44	-	-	-	-	-	-	-	-
Age between 45-64	-0.0090	-0.0084	-0.0071	-0.0066	-0.0984	-0.0965	-0.1008	-0.0990
FPL Indicators								
FPL equal to zero	-	-	-	-	-	-	-	-
FPL between 1-37	0.0346***	0.0346***	0.0323***	0.0323***	0.1648**	0.1630**	0.1475*	0.1460*
FPL between 38-75	0.024*	0.0246*	0.0176	0.0173	0.0796	0.0723	0.0192	0.0119
FPL between 76-100	0.0344*	0.0343*	0.0138	0.0137	0.1249	0.1251	-0.0488	-0.0491
FPL between 101-133	0.0234	0.0231	-0.0300	-0.0302	0.0997	0.0989	-0.3442*	-0.3457*
FPL ≥ 134	0.0081	0.0076	-0.0183	-0.0188	0.1203	0.1182	-0.0822	-0.0849
In a MHH ≥ 6 months	0.0202	0.0200	0.0202	0.0200	0.1318	0.1312	0.1299	0.1294
In a IHH \geq 6 months	-0.0006	-0.0004	-0.0007	-0.0005	0.0136	0.0167	0.0159	0.0191
Time Period (Post)	-0.0342***	-0.0357***	-0.0343***	-0.0358***	-0.4641***	-0.4844***	-0.4643***	-0.4848***
DID Estimates								
WP DID Estimator	0.2803***	0.2817***	-	-	2.3793***	2.4004***	-	-
MPC DID Estimator	0.1555***	0.1570***	-	-	1.4589***	1.4806***	-	-
MPC/WP DID Estimator	-	-	0.2615***	0.2629***	-	-	2.2312***	2.2524***

Cost

The original evaluation proposal contained an ambitious array of cost analytics incorporating DID and RDD methods to determine the effects of IHAWP on the cost of care. Experience with the actual data in terms of modeling costs has led us to critical observations. First, there are a number of differences between the IowaCare (IC) program and IHAWP that must be understood before using IC as the source for pre-implementation data.

- 1) IowaCare did not cover prescription medications, IHAWP and FMAP do.
- 2) IowaCare had a very limited set of providers when compared to IHAWP or FMAP, particularly with regard to ED and inpatient care.
- 3) IowaCare enrolled people with incomes up to 185% FPL, while IHAWP and FMAP enrolled people with incomes up to 133% and 75% FPL, respectively.

IHAWP encompasses both WP and MPC. MPC members were covered by Qualified Health Plans from Coventry or CoOportunity Health. Coventry was active from January 1, 2014-December 31, 2015 and CoOportunity was active from January 1, 2014 through November 30, 2014, with different fee schedules and prescription formularies. CoOportunity left MPC in November 2014 having been placed in receivership. Figure 13 shows the total PMPM costs for MPC. Given the drastic changes in the program, additional modelling is required to estimate the cost effects of this program. These efforts are still underway and MPC members are not included in the DID estimation presented below.



Figure 14. PMPM total costs by program and month

Given the limited benefits in IC, there is little reason to anticipate that PMPM costs for IHAWP members will be lower than prior costs for IC. In fact, we would anticipate that the costs would be much higher with increased coverage and improved provider access. Figure 14 shows the PMPM costs by program and month. WP member PMPM costs are lower than FMAP, though these costs are higher than IC reflecting the increased coverage and broader provider network.



Figure 15. PMPM costs for study and comparison group members by month

We limited the analyses to WP members who were enrolled in IC during the pre-implementation years and FMAP members who are enrolled for some period of time in both the pre- and post-implementation periods. This allows us to control for individual differences in members that may drive costs. Figure 16 provides an illustration of PMPM total cost for these two groups before and after implementation of the program.

Figure 16. Per member per month total cost before and after implementation of IHAWP by program and month



PMPM cost trends downward for IC members in the last 6 months of CY2013 (consistent across all cost categories). We believe this may be due to anticipation of the new program (IHAWP) with broader coverage and a larger provider network.

To estimate the effect of IHAWP on PMPM total costs we include a series of models that attempt to control for other possible causes of cost changes over time. We estimate a pre/post fixed effects regression comparing costs for WP members who were previously enrolled in IC while controlling for individual and plan characteristics. To control for other non-IHAWP factors, we then use a fixed effects DID estimation using FMAP members as the comparison group. . Finally, we use an additional DID estimation that controls for any differences in cost trends prior to the beginning of IHAWP between IC and FMAP enrollees as well as capturing any post-IHAWP trends to understand whether longer enrollment changes the estimate effect. As noted previously, we analyze only

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members eligible for IHAWP in the post period who had data for the pre-implementation period and members eligible for FMAP with data in both periods. This approach limits the effects of newly enrolled members who may have a different constellation of health service use related to pent-up demand.

Table 20 provides results for the cost analyses. Column 1 (row 1) illustrates the large average cost increase per month (\$177.30) comparing the WP months to the IC months for only those members that transitioned from IC to WP. Results from column 2 (row 1) suggest that increasing costs overall are responsible for part of the large increase observed in column 1. Differencing out general cost trends with FMAP members drops the average difference due to IHAWP to \$84.80 per month on average. The model that allows for differential trends (column 3, row 1) finds that only are average costs higher for WP members but that additional months in the program lead to slightly higher costs as well (almost \$3 per month).

Table 20. Model estimates for PMPM total costs

	Using data on IC-WP members only (1)	Using data o FMAP m (2)	n IC-WP and embers (3)
Key variable (=1 for WP in post period, =0 otherwise)	177.3***	84.8***	50.5***
	(21.3)	(7.36)	(10.8)
Number of months since Jan 2014 (=0, 1, 2, for Jan, Feb, Mar,)			2.76** (0.93)
Post-period trend (coded 1 for Jan 2014 and $+1$ for each month thereafter)			57.3** (23.5)
General trend (coded 1 for Jan 2012 and +1 for each month thereafter)			-28.4** (11.9)
General trend * Treatment dummy (=1 for IC-WP members)			0.41 (0.50)
Covered by Medicare	-219.9	-327.0	-324.2
	(136.9)	(214.5)	(214.6)
Percent of FPL	-0.64	-0.44	-0.63
	(0.85)	(0.85)	(0.85)
Covered through the HMO	193.6***	26.9**	28.7**
	(57.2)	(12.4)	(12.3)
In a program with limited coverage	72.4*	-95.0***	-97.3***
	(42.3)	(13.9)	(13.9)
in the Integrated Health Home	-227.0***	-7.32	-0.82
	(5.93)	(28.7)	(28.7)
in the Chronic Condition Health Home	-536.9	-287.2***	-283.9***
	(401.3)	(32.0)	(32.0)
Pregnant during the month	952.5***	933.2***	931.9***
	(52.4)	(10.7)	(10.7)
Had a claim for Mental Health	517.0***	510.6***	510.4***
	(27.0)	(14.0)	(14.0)
Had a claim for Substance Abuse	1868.7***	1693.3***	1692.8***
	(81.8)	(55.9)	(55.9)
Had a claim for Asthma	882.1***	829.0***	829.1***
	(140.0)	(59.5)	(59.5)
Had a claim for Diabetes	493.0*** (27.2)	538.1*** (28.0)	537.6*** (28.0)
Had a claim for Coronary Artery Disease	2340.0*** (83.5)	2517.1*** (76.6)	2516.6*** (76.6)
Had a claim for Obesity	742.5*** (39.4)	822.9*** (29.2)	822.8*** (29.2)
Had a claim for Hypertension	441.6***	533.7***	533.7***
	(20.8)	(21.1)	(21.1)
Had a claim for COPD/Emphysema	870.8***	774.8***	774.4***
	(57.6)	(40.6)	(40.6)
Has Breast, Colon, Prostate, Lung or En-	2581.9***	2838.8***	2838.3***
dometrial CA	(169.5)	(156.5)	(156.6)
Observations	1074447	2278065	2278065

Standard errors in parentheses * p<0.10, ** p<0.05, *** p<0.01

Limitations

As with all evaluations, there are limitations to the interpretation of these. There may be a propensity for members who have the most to gain from coverage to have accessed services earlier through the IC 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.