Iowa Wellness Plan Evaluation

Interim Report CY 2016

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Overall

This report provides the results of an evaluation of the costs and outcomes of the Iowa Wellness Plan (IWP), Iowa's version of the Medicaid expansion, during calendar year 2016. IWP expanded health care coverage to Iowans who, with incomes from 0-138% of the Federal Poverty Level, are not categorically eligible for Medicaid. This report found that the cost of the Medicaid expansion was below that for comparable adults in the Medicaid program. Additionally, trends in quality measures indicate that this coverage also improved access to primary care and screening during the first two years of the program.

Enrollment trends

- Enrollment was steady through CY 2016, hovering around 158,000 during most of the year. This followed an initial rapid growth period during the first five months of the program in CY 2015, (in part due to auto-enrollment of IowaCare members); enrollment climbed more slowly and steadily through December 2015.
- There was obvious churn (i.e., members switching between or out of programs) during the first two years of the program; however most of this movement is for members moving in and out of IWP and Medicaid overall rather than between programs.

Access to care

- Rates of preventive and ambulatory care visits increased for IWP members from 2015 to 2016, becoming nearly equal to those for Family Medical Assistance Program (FMAP) members. Access to a medical provider for either preventive or ambulatory care had been lower for IWP members than adult Medicaid FMAP members but higher than for IowaCare members in 2015.
- Screening rates were mixed for women in IWP 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.
- Access to care for members in IWP diagnosed with diabetes is higher than that for members in FMAP as measured by the rates of hemoglobin A1c and LDL-C testing.
- The rates of non-emergent emergency department (ED) visits and 30-day ED readmission rates are lower for IWP than for FMAP, indicating that IWP 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 chronic obstructive pulmonary disease/asthma and rate of admission for congestive heart failure, both of which are components of AHRQ's Preventive Quality Indicators (PQI). The rates for IWP members were higher than for adults in FMAP, a finding which may be related to the higher proportion of members over 40 in these two programs.

Cost

• The per member per month (PMPM) cost for health care was higher for IWP members than for IowaCare members, as would be expected due to the extended coverage and provider network; however, PMPM costs for IWP members were lower than those for FMAP members.

Background

There were originally two components to the Iowa Health and Wellness Plan (IHAWP), a bipartisan solution to expand health care to low-income adult Iowans not categorically eligible for Medicaid: 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 Marketplace Choice (MPC), a premium support program for Iowans from 101-133% FPL. More information regarding the formulation and implementation of IHAWP can be found online at http://dhs.iowa.gov/ime/about/initiatives/iowa-health-and-wellness-plan.

IHAWP was modified in significant ways in the first two years (Table 1), affecting the program design, provider networks from whom members could receive services, and potentially the outcomes evaluated in this report. The first major change occurred when CoOportunity Health withdrew as a Qualified Health Plan (QHP) option for MPC members at the end of November 2014.¹ Approximately 9,700 CoOportunity Health members were automatically transitioned to Medicaid providers on December 1, 2014, through MediPASS (primary care case management [PCCM] program), Meridian (HMO), or traditional Medicaid (fee-for-service [FFS] payment mechanism); however, they retained their designation as MPC members. IHAWP members who were not in CoOportunity Health remained in Coventry, the other QHP. However, Coventry was not willing to cover MPC members transitioning from CoOportunity Health.

During calendar year 2015 it was mandated that all Medicaid members, including all IHAWP members, were to be placed into one of three managed care organizations (MCOs) beginning January 1, 2016. Due to a three-month implementation delay, IHAWP members previously enrolled with Coventry were placed into the traditional Medicaid FFS program effective December 31, 2015, until the Medicaid Managed Care Organizations (MCOs) were able to begin accepting members on April 1, 2016.

Effective January 1, 2016, the MPC program was not renewed, so all MPC members were rolled into the WP. The Iowa Health and Wellness Plan (IHAWP) became the Iowa Wellness Plan (IWP) covering Iowans not categorically eligible for Medicaid with incomes from 0-133% FPL. During CY 2016 members were enrolled with one of three MCOs: Amerigroup Iowa, Inc; AmeriHealth Caritas; or UnitedHealthcare Plan of the River Valley, Inc. This report provides the outcome results for the first year in which statewide managed care was implemented. However, due to the late start members were only in the MCO model for nine months. For this reason, results are not reported by MCO. The results for previous years are contained in a number of reports and articles that can be accessed at http://ppc.uiowa.edu/health/study/evaluation-iowas-medicaid-expansion-iowa-health-and-wellness-plan.

As indicated above, CY 2016 was a year of changes. Nationally, CY 2016 was the first full year of utilizing the new ICD-10 codes and the accompanying HEDIS protocols. New coding inevitably results in differences in categorization and limits the comparison of current year rates to rates from previous years. Members were enrolled in an MCO at the beginning of the second quarter of 2016, making it difficult to account outcomes and cost to any given MCO or health services model (FFS vs MCO). During the period from April to September 2016 the administrative data provided for analyses switched from primary claims-based provided by Iowa Medicaid Enterprise (IME) to secondary encounter-based originating from the MCOs and processed through IME. Data provided by the MCOs was incomplete with data missing in key fields such as the DRG code and discharge date for hospitalizations. More recently efforts by the IME to improve the encounter data have been successful in improving the data quality, though it remains difficult to determine whether the data is *comparable* to previous years.

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.

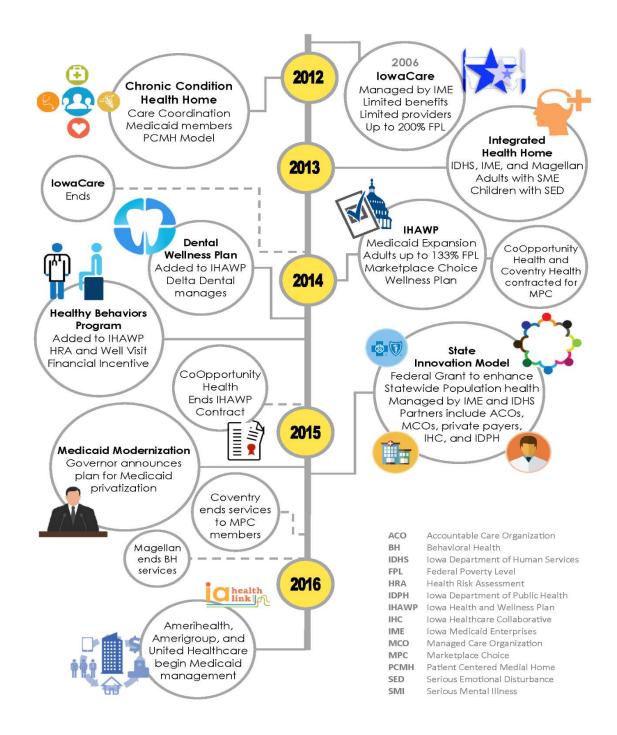
Table 1. IHAWP timeline

Date	Change
January 2014	First IHAWP members enrolled
May 2014	MPC members enrolled in Dental Wellness Plan with Delta Dental of Iowa
July 2014	MPC members enrolled in the Healthy Behaviors Incentive Program
November 2014	MPC members in CoOportunity were moved to MediPASS (PCCM program), Meridian (HMO), or Coventry (QHP)
November 2015	MPC members in Coventry were moved to MediPASS or Fee-for-service (MPC component dormant)
April 2016	MPC members were moved to one of three MCOs - AmeriGroup Iowa, Ameri- Health Caritas, or UnitedHealthcare Plan of the River Valley

Other activities in Iowa

Other activities occurring in Iowa's health care system during the implementation and first two years of IWP may have affected some of the outcomes in this report (Figure 1). For example, Iowa completed the first two years of a four-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. Along with the MCO contracting for Medicaid, these activities implemented statewide make it more difficult to isolate IHAWP-induced changes in utilization, cost, or health outcomes.

Figure 1. Iowa health system changes



Study populations

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 member. 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 Medicare, making their health care utilization 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 Services Waivers or the Integrated Health Home for adults with severe mental illness or children with severe emotional disturbance. Our study minimizes the use of data for members who move into reduced spending programs or into specialized Medicaid initiatives.

Within the IHAWP evaluation there are up to three distinct groups of adult health plan members being assessed: 1) Iowa Wellness Plan (IWP) members as described above, 2) Family Medical Assistance Program (FMAP) members, and 3) IowaCare (IC)2 members.

Family Medical Assistance Program (FMAP)

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 parents 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 prior to April 1, 2016, at which time all were placed into an MCO.

IowaCare (IC)

IowaCare was a limited provider/limited benefit program that operated from 2005 to 2013. The provider network included a public hospital in Des Moines, the largest teaching hospital in the state located in Iowa City, and six federally qualified health centers (FQHC). The plan served adults not otherwise eligible for Medicaid, with incomes up to 200% FPL. IHAWP replaced IowaCare, providing the opportunity to utilize pre-implementation administrative and survey data (pre-implementation data) for enrollees from this program. IowaCare enrollees were distributed into 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 with incomes 133-200% FPL or with unverifiable incomes were not enrolled in any program.

IowaCare did not provide coverage for routine dental care 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 2) shows the provider locations and counties in which IowaCare members were assigned to each Medical Home while in IowaCare. While IWP only covers uninsured adults up to 133% FPL (instead of 200% FPL), it does provide coverage for prescription drugs and dental care and has a much broader provider network than was available for members in IowaCare. Members who were eligible for IWP and enrolled in the IowaCare program as of December 31, 2013, were automatically enrolled into IWP as of January 1, 2014, if they met the eligibility criteria. Since IowaCare provided coverage for adults up to 200% FPL and IWP provides coverage to only 133% FPL, IowaCare members with incomes between 134-200% FPL were not auto-enrolled into IWP.

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

IowaCare Provider Network: January 1, 2013 **Medical Homes:** Siouxland PHC
Broadlawns O'Brien Clay Hancock Cerro Goro Floyd CHCFD Peoples Wright Franklin Plymouth Cherokee Buena Vist Crescent UIHC == ACHC Black Hawk Buchanan Hamilton Grundy Fort Dodge Participating Indian Health Centers: Crawford Tama ■Meskwaki Tribal Health Center – Tama, IA Marshalltown •Winnebago IHS Hospital Dallas Cedar Polk Winnebago, NE
 Fred LeRoy Health and
 Wellness Center – Iowa City Des Moines Omaha, NE uscatine b 工 Clarke Mills Adams Lucas 5 Page Taylor

Figure 2. Map of IowaCare Medical Home Regions

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, leveling off around 158,000 members and remaining at roughly that level through December 2016. Enrollments rose 91% from 61,895 initially to nearly 118,512 in WP and 143% from under 15,483 to 37,609 in MPC. Beginning January 2016, MPC became dormant and all enrollees in the Iowa Health and Wellness Plan became members of Iowa Wellness Plan (IWP). Ultimately, by December 2016 there were nearly 160,000 members enrolled in IWP (Figure 3).

Figure 4 visualizes Medicaid program churn from the first quarter 2013 through the fourth quarter 2016. This figure includes any member enrolled for at least one month in any Medicaid program from CY 2013 through CY 2016. 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 from Q4 to Q5 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 Supplementary Security Income (SSI) and the shift in number of members between IowaCare and IHAWP. After the first quarter (Q4 to Q5 in the chart below) of IHAWP the movement between programs seems to have stabilized, as would be expected. The lines for the first quarter of IHAWP (Q4 to Q5) 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 (Q4 to Q6), the movement between programs seems to stabilize with members moving between programs and in and out of Medicaid at consistent rates.

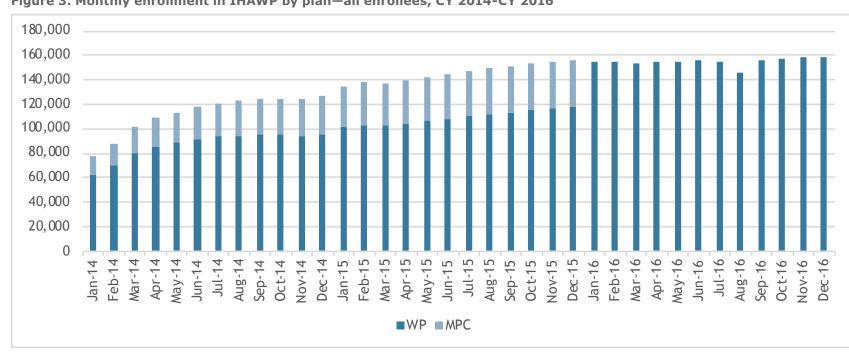
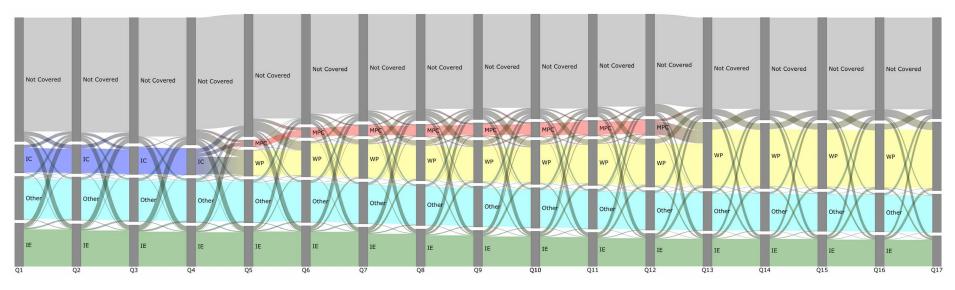


Figure 3. Monthly enrollment in IHAWP by plan-all enrollees, CY 2014-CY 2016

Figure 4. Churn in Medicaid programs, 1st quarter 2013-4th quarter 2016



IC=IowaCare
Other=Other Medicaid programs, including SSI
IE=Income Eligible
WP=Wellness Plan
MPC=Marketplace Choice

Table 2 provides comparisons of the IWP members over time. The characteristics of IWP members remained stable over the three years following implementation. IWP members were equally likely to be male or female and most likely to be white, between 22 and 30 years of age, and live in a metropolitan area.

Table 2. Demographic characteristics of IWP members, CY 2014, CY 2015, and CY 2016

	CY 2016 N (%)	CY 2015 N (%)	CY 2014 N (%)
Gender			
Female	105,606 (51%)	102,598 (52%)	78,421 (51%)
Male	99,413 (49%)	95,086 (48%)	74,966 (49%)
Race			
White	134,327 (66%)	129,637 (66%)	99,487 (65%)
Black	17,337 (9%)	15,932 (8%)	11,908 (8%)
American Indian	3,145 (2%)	2,609 (1%)	2,017 (1%)
Asian	4,687 (2%)	4,323 (2%)	3,066 (2%)
Hispanic	9,182 (5%)	8,122 (4%)	5,548 (4%)
Pacific Islander	1,075 (<1%)	1,243 (1%)	819 (1%)
Multiple—Hispanic	2,643 (1%)	2,330 (1%)	1,502 (1%)
Multiple—Other	2,064 (1%)	1,810 (1%)	1,179 (1%)
Undeclared	30,559 (15%)	31,678 (16%)	27,861 (18%)
Age			
18-21 years	20,666 (10%)	19,325 (10%)	11,599 (8%)
22-30 years	56,234 (27%)	53,039 (27%)	38,997 (25%)
31-40 years	47,067 (23%)	44,720 (23%)	33,722 (22%)
41-50 years	36,281 (18%)	35,588 (18%)	30,503 (20%)
51 and over	44,769 (22%)	45,012 (23%)	38,566 (25%)
County rural/urban status			
Metropolitan	121,398 (59%)	119,368 (60%)	93,551 (61%)
Non-metropolitan, urban	69,809 (34%)	68,988 (35%)	52,977 (35%)
Non-metropolitan, rural	9,705 (5%)	9,328 (5%)	6,859 (4%)
Total	205,019	197,684	153,387

Limitations to the study

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.

A special note of caution is required in regard to comparisons over time. Though we provide some trend data, the change in data source and management may have led to variance in how claims are coded for billing and the quality of the data for analysis.

One other change to the tables is worth noting. In CY 2016 we are able to include many more IWP members for the measures that require at least 11 months of eligibility for the measurement year and each of the two years prior to the measurement year. This is the first measurement year when it is possible for people to have been eligible for IWP across three years. For example, the numbers of women receiving a breast cancer screening goes up considerably from 1,855 to 4,430 though as a proportion of the eligible members the rate only moves from 60% to 62%. This is due to the greater numbers of IHAWP members who meet the measure criterion that members must be eligible for at least 11 months in both the measurement year and each of the two years before.

Methodology

Data source

The University of Iowa Public Policy Center (PPC) maintains a repository of Iowa Medicaid administrative data for evaluating programs for the IME. 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.

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 http://ppc.uiowa.edu/health/study/evaluation-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 six 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 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," which can be found at http://ppc.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 http://ppc.uiowa.edu/publications/healthy-behaviors-incentive-program-evaluation.

Results

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

Table 3 indicates that members in IC were the least likely to have had a preventive/ambulatory care visit. These same members, when in IWP, were more likely to have had a preventive/ambulatory care visit. Though FMAP adults were more likely to have a preventive/ambulatory visit throughout the study period, the proportion of IWP adults with a visit increased over this time. For adults 20-44 years of age in CY 2016, the proportion of FMAP adults with a visit was 90%, up 3% from CY 2014, while the proportion of IWP plan adults with a visit was 86%, up 12% from CY 2014. For adults 45-64 years of age, the proportion of FMAP adults with a visit rose from 86% to 90%, while the proportion of IWP adults with a visit rose from 83% to 90% during that same time. In CY 2016, IWP adults 45-64 were as likely to have had a visit as the FMAP group. (See Figure 5 and Figure 6).

Table 3. Adults' access to preventive/ambulatory health services by program and age for IWP 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->I- WP 2013	FMAP 2014	IWP 2014	FMAP 2015	IWP 2015	FMAP 2016	IWP 2016
20-44 years	Number	14,706	8,876	16,556	16,633	17,065	27,629	14,624	27,339
	%	86%	52%	87%	74%	87%	76%	90%	86%
45-64 years	Number	1,494	9,016	2,049	14,428	2,386	20,287	2,309	23,832
	%	85%	66%	86%	83%	88%	84%	90%	90%
Total	Number	16,200	17,892	18,606	31,061	19,451	47,916	16,933	51,271
	%	86%	59%	87%	78%	87%	79%	88%	88%

Figure 5. Access to preventive/ambulatory health services for adults 20-44 years of age by program and year, CY 2013-CY 2016

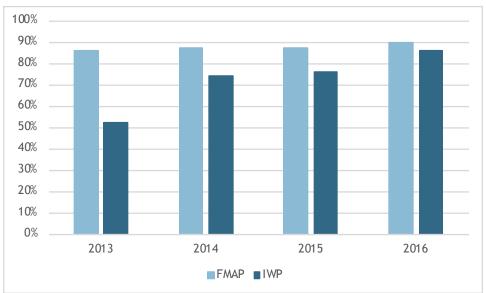
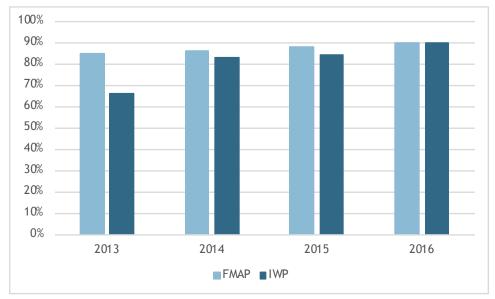


Figure 6. Access to preventive/ambulatory health services for adults 45-64 years of age by program and year, CY 2013-CY 2016



Breast cancer screening

The percent of women 50-64 who had a mammogram to screen for breast cancer presented in this measure includes only those women eligible for at least 11 months in the measurement year and in each of the two years prior to the measurement year. For example, for the measurement year CY 2016 only women eligible for at least 11 months in each of CY 2016, CY 2015, and CY 2014 are included in the results.

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

Results

Table 4 and Figure 7 provide the proportion of women ages 50-64 who had a mammogram by program and year. Rates were the highest among women in IWP. Women in IC had the lowest rate of mammograms. This provides one indication that women in IWP are more likely to engage in preventive behaviors, possibly in response to the Healthy Behaviors Incentive program.

Table 4. Percent of women ages 50-64 who had a mammogram, CY 2013-CY 2016

Age		FMAP 2013	IC->I- WP 2013	FMAP 2014	IWP 2014	FMAP 2015	IWP 2015	FMAP 2016	IWP 2016
50-64	Number	122	1,125	144	1,827	149	1,855	246	4,430
years	%	40%	34%	42%	52%	47%	60%	50%	62%

100% 90% 80% 70% 60% 50% 40% 30% 20% 10% 0% IC>IWP **IWP IWP IWP FMAP FMAP FMAP FMAP** 2014 2015 2016 2013 2014 2015 2016 2013

Figure 7. 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's 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 (explained more fully under breast cancer screening above).

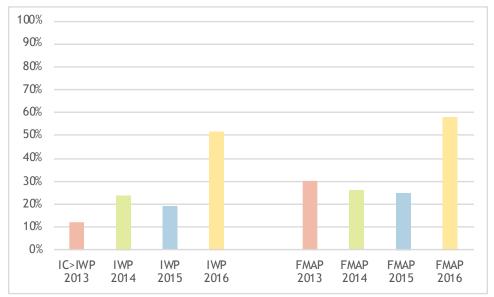
Results

Table 5 and Figure 8 provide the proportion of women ages 21-64 who were screened for cervical cancer. The numbers of women screened are higher than the breast cancer screening measure due to the expanded age range. Rates for cervical cancer screening were higher for women in FMAP than women in IWP across all years. Though women in IWP had screening rates comparable to FMAP in 2014, this was not sustained in 2015. In 2016 the rates were much higher for both groups. Though it is difficult to determine why the rates may have changed so dramatically, it is most likely due to changes in billing and behavior rather than in changes in behavior alone. Women may be more likely to seek care at clinics that bill Medicaid as opposed to free medical clinics, thus allowing the administrative data analyses to detect the screening. MCOs may also be working to support preventive behaviors including screening.

Table 5. Percent of women ages 21-64 who had cervical cancer screening, CY 2013-CY 2016

Age		FMAP 2013	IC->WP 2013	FMAP 2014	WP 2014	FMAP 2015	WP 2015	FMAP 2016	WP 2016
21-64	Number	4,385	1,866	4,204	4,861	4,263	5,822	6,424	11,094
years	%	30%	12%	26%	24%	25%	19%	58%	52%

Figure 8. 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%)
- HbA1c control (<7.0%) for a selected population
- Eye exam (retinal) performed
- Medical attention for nephropathy
- BP control (<140/90 mm Hg)

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, which should lead to a reduction in poor outcomes such as neuropathy or diabetic retinopathy. The HEDIS Comprehensive Diabetes Care—Hemoglobin A1c is used for this measure. The protocol is also found at NQF 0057 and as CMS's 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.

Results

IWP consistently has 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 (Table 6 and Figure 9). Members with diabetes in IWP were more likely to have a hemoglobin A1c than those in FMAP (Figure 10).

The rate of hemoglobin A1c testing in IC members with diabetes was 90% in CY 2013 leading us to expect a similar rate in IWP. The rate of hemoglobin A1c testing for IWP members with diabetes were comparable to those in IC in CY 2013 through CY 2016, when the rate fell to 84%. There was an even more pronounced fall in the rate of hemoglobin A1c testing in people with diabetes in the FMAP program indicating that the reasons may be outside the specific program.

Table 6. Proportion of population age 19-64 identified as having diabetes, CY 2013-CY 2016

	FMAP 2013	IC-> IWP 2013	FMAP 2014	IWP 2014	FMAP 2015	IWP 2015	FMAP 2016	IWP 2016
Proportion with diabetes	4%	9%	5%	10%	5%	10%	8%	12%
Hemoglobin A1c rate	86%	90%	84%	89%	83%	90%	75%	84%

Figure 9. Proportion of members diagnosed with diabetes by program and year

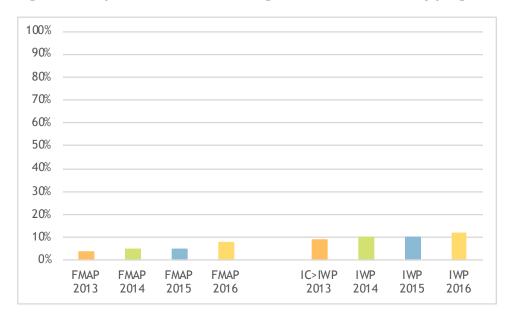
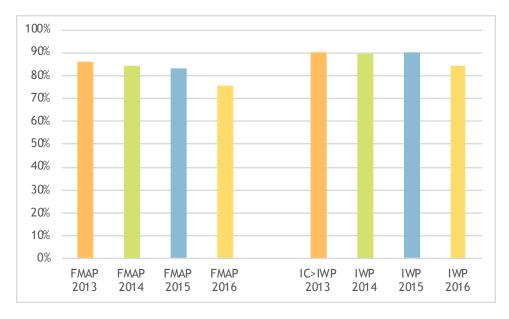


Figure 10. Proportion of population age 19-64 identified as having diabetes and receiving a hemoglobin A1c test, CY 2013-CY 2016



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's 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.

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 (Figure 11). The IC rate is quite low, perhaps indicating an inability to detect the testing when performed in FQHCs. Global reimbursement for services provided during a visit may mask the provision of this test. Rates of LDL-C screening in IWP members with diabetes were higher than the rates for FMAP members with diabetes for all three years.

Table 7. Proportion of population age 19-64 identified as having diabetes with LDL-C screening, CY 2013-CY 2016

	FMAP 2013	IC-> IWP 2013	FMAP 2014	IWP 2014	FMAP 2015	IWP 2015	FMAP 2016	IWP 2016
Proportion with diabetes	4%	9%	5%	10%	5%	10%	7%	11%
LDL-C rate	63%	40%	65%	67%	63%	72%	55%	67%

Figure 11. Proportion of population age 19-64 identified as having diabetes with LDL-C screening, CY 2013-CY 2016



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 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.

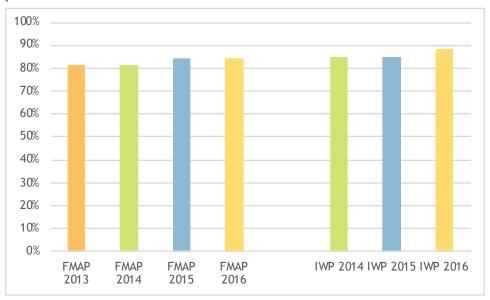
Results

Table 8 and Figure 12 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 IWP were comparable to or higher than the rates of screening for FMAP members for all three years.

Table 8. Proportion of population on diuretic medications screened for potassium and creatinine, CY 2013-CY 2016

	FMAP 2013	IC-> IWP 2013	FMAP 2014	IWP 2014	FMAP 2015	IWP 2015	FMAP 2016	IWP 2016
Proportion on diuretic	2%	N/A	2%	5%	2%	5%	4%	8%
Monitoring rate	81%	N/A	81%	84%	84%	85%	84%	88%

Figure 12. Proportion of population on diuretic medications monitored for changes in potassium and creatinine



Non-emergent ED use

The number of non-emergent ED visits per 1,000 member months (total number of months that people are eligible across all members) 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. Each visit is provided with a number between 0 and 1 that indicates the degree to which it may be considered non-emergent. These are summed for all visits in the measurement year across all visits made by members and then divided by the total number of member months and multiplied by 1,000.

Results

The number of non-emergent ED visits per 1,000 members in FMAP is much higher than for members in IC 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 IWP did not have these restrictions leading to an increase in the number of non-emergent ED visits as compared to IC members prior to implementation of IHAWP. Yet, the numbers of non-emergent ED visits were still well below those for FMAP members in the post-implementation period (Table 9).

Table 9. Number of non-emergent visits per 1,000 member months, CY 2013-CY 2016

	FMAP 2013	IC-> IWP 2013	FMAP 2014		FMAP 2015	IWP 2015	FMAP 2016	IWP 2016
Number of non-emergent visits/1,000 member months	23.2	7.7	23.0	12.3	22.2	12.9	21.1	15.6

Follow-up ED visits

The percent of members with an ED visit within the first 30 days after an index ED visit may indicate a 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 lowest for IC members. Calculating this measure is challenging. IC members were only allowed to obtain *covered* ED care through 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, a rare occurrence in the other programs. This artificially deflates the IC ED rate.

Without the IC population, the rates of ED and follow-up ED visits are higher than for IC members, but still lower than for FMAP members for all three years, CY 2014-CY 2016 (Table 10).

Table 10. Proportion of population age 19-64 eligible for at least 11 months identified as having an index ED visit with at least one ED readmission within 30 days, CY 2013-CY 2016

	FMAP 2013	IC-> IWP 2013	FMAP 2014	IWP 2014	FMAP 2015	IWP 2015	FMAP 2016	IWP 2016
Proportion with index ED visit	68%	42%	67%	66%	71%	69%	49%	37%
Proportion with follow-up ED visits	29%	19%	30%	24%	28%	23%	29%	27%

Ambulatory care

The rate of ambulatory care 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 one month during the year. The protocol for HEDIS Ambulatory Care (AMB) is used for this measure. The rate of ED visits is higher for FMAP members for all four years (Table 11); however, the ED rates for FMAP members and IWP members begin to converge in CY 2016 (Figure 13). During this same time frame, the rate of ambulatory care visits increased from nearly 200 per 1,000 member months in CY 2013 to nearly 350 per 1,000 member months in CY 2016, while the rate of ambulatory care visits decreased for FMAP members. This may indicate increasing access to care for IWP members as FMAP rates stay relatively flat. By CY 2016 the rate of ambulatory care visits for IWP members is very close to the rate for FMAP members.

Results

Table 11. Number of ED visits and number of ambulatory care visits per 1,000 member months for members 19-64 years of age, CY 2013-CY 2016

	FMAP 2013	IC-> IWP 2013	FMAP 2014	IWP 2014	FMAP 2015	IWP 2015	FMAP 2016	IWP 2016
ED visits/1,000 member months	106.4	34.7	104.1	65.9	103.5	68.4	100.9	78.6
Ambulatory care visits/1,000 member months	398.9	197.0	422.3	316.1	452.4	346.4	374.4	344.8

Figure 13. ED visits per 1,000 member months by program and year, CY 2013-CY 2016

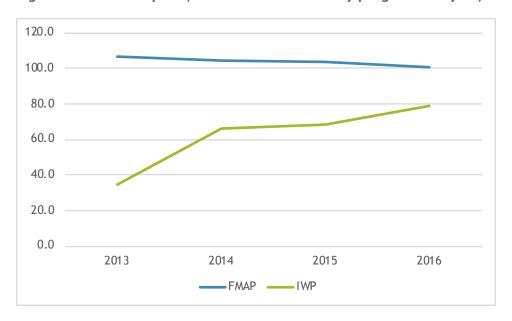
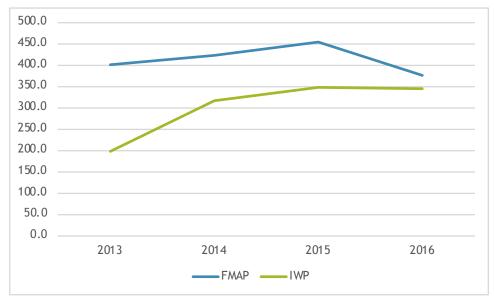


Figure 14. Ambulatory care visits per 1,000 member months by program and year, CY 2013-CY 2016



Quality of care

Admission rate for chronic obstructive pulmonary disease (COPD)/asthma

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 as number of admissions per 100,000 members who were enrolled for at least 11 months of the year. The rates are reported for CY 2016 only, as the change in diagnosis coding from ICD-9 to ICD-10 resulted in a new AHRQ WinQI calculator for CY 2016.

Results

Rates of admission for COPD/asthma were much higher for IWP than for FMAP in CY 2016. This might be expected as the FMAP population is younger than the IWP population (Table 12). The rate of admission is nearly three times higher for IWP than for FMAP members. This may be expected due to the increased age of IWP members and the higher likelihood of chronic conditions in this group.

Table 12. COPD/asthma admission rate for members 19-64 years of age and eligible for at least 11 months

	FMAP 2016	IWP 2016
Members	26,411	100,377
Number of admissions	16	178
Admission rate/100,000	61	177

Admission rate for congestive heart failure (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 CHF admission. The number of admissions was then calculated as the number of admissions per 100,000 members who were enrolled for at least 11 months of the year.

Results

Rates of admission for CHF were much higher for IWP than for FMAP in CY 2016. This might be expected as the FMAP population is younger than the IWP population and much less likely to be experiencing chronic diseases such as CHF.

Table 13. CHF admission rate for members 19-64 years of age and eligible for at least 11 months, CY 2016

	FMAP	IWP
Members	26,411	100,377
Number of admissions	23	163
Admission rate/100,000	87	162

Well adult visit

The well adult visit measure calculates the percent of members with a well adult visit as defined by one of the following:

- Preventive exam CPT code (99385-99387, 99395-99397, 99401-99404, 99411, 99412, 99420, 99429) for the period CY 2013 through CY 2016
- ☐ Visit code (99201-99215) AND a preventive visit diagnosis code (V70.0, V70.3, V70.5, V70.6, V70.8, V70.9) for the period CY 2013 through 3rd quarter 2015
- ☐ Visit code (99201-99215) AND a preventive visit diagnosis code (Z00.00, Z00.01, Z00.121, Z00.129, Z00.5, Z00.8, Z02.0, Z02.1, Z02.2, Z02.3, Z02.4, Z02.5, Z02.6, Z02.71, Z02.79, Z02.81, Z02.82, Z02.83, Z02.89, Z02.9) for the period 4th quarter 2015 through CY 2016

A "well visit" within IHAWP may include a dental visit; however, we have limited the definition for the current measure to medical visits.

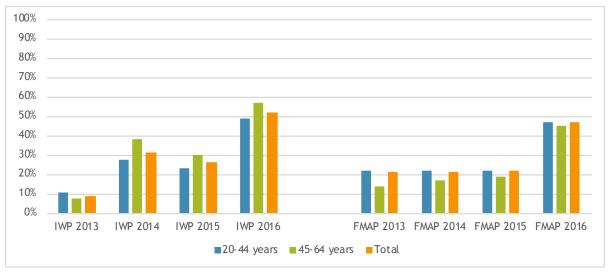
Results

Rates of well adult care are higher for IWP members than IowaCare members or FMAP members across both age groups; however, the rates in both groups seem to converge for CY 2016. These results indicate that the IWP members are more likely than FMAP members to receive preventive care.

Table 14. Adult well visit rates by program and age for members eligible for at least 11 months in the measurement year and 11 months in the year before the measurement year CY 2013-CY 2016

Age		FMAP 2013	IC-> IWP 2013	FMAP 2014	IWP 2014	FMAP 2015	IWP 2015	FMAP 2016	IWP 2016
20-44	Number	3,754	1,695	4,110	6,164	4,340	8,587	7,705	15,542
years	%	22%	10%	22%	28%	22%	23%	47%	49%
45-64	Number	249	960	413	6,576	515	7,400	2,571	14,946
years	%	14%	7%	17%	38%	19%	30%	49%	57%
Total	Number	4,003	2,655	4,523	13,740	4,855	15,987	8,881	30,488
	%	21%	9%	21%	31%	22%	26%	47%	52%

Figure 15. Adults' access to preventive health services by program, age, and year



Whether member had well adult visit

The analyses regarding whether a member had a well adult visit and the factors related to a well adult visit are covered in Healthy Behaviors Incentive program reports at http://ppc.uiowa.edu/health/study/healthy-behaviors-incentive-program.

Cost

The original evaluation proposal contained an ambitious array of cost analytics incorporating difference-in-difference (DID) and regression discontinuity design (RDD) methods to determine the effects of IWP 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 IC program and IHAWP that must be understood before using IC as the source for pre-implementation data.

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

IWP encompasses both WP and MPC. MPC members were covered by QHPs from Coventry or CoOportunity Health. Coventry was active from January 1, 2014 through December 31, 2015 and CoOportunity was active from January 1, 2014, through November 30, 2014, with distinct 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.

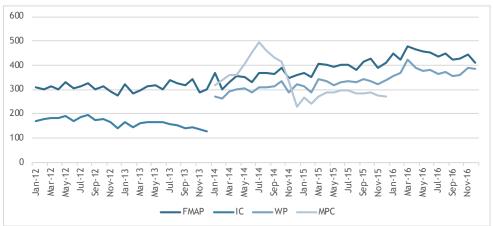


Figure 16. PMPM total costs by program and month

*WP and MPC became IWP effective January 1, 2016 and are combined under WP from January 2016 forward.

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 16 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.

PMPM cost trends downward for IC members in the last six months of CY 2013 (consistent across all cost categories). We believe this may be due to anticipation of the new program (IWP) with broader coverage and a larger provider network. IWP PMPM costs and FMAP PMPM costs appear to be converging during CY 2016. This result validates the data, as costs should be very similar with all members enrolled in MCOs.

Model 1: DID CY 2013-CY 2015—Expansion cost model

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 (these results were also included in a previous report). 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 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 15 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. The model that allows for differential trends (column 3, row 1) finds that average costs are only higher for WP members but that additional months in the program lead to slightly higher costs as well (almost \$3 per month).

Table 15. Model estimates for PMPM total costs by program

	IC-WP only (1)	IC-WP and FMAP (2) (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 (=1 for Jan 2014 and +1 for each month thereafter)			57.3** (23.5)
General trend (=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***	538.1***	537.6***
	(27.2)	(28.0)	(28.0)
Had a claim for coronary artery disease	2340.0***	2517.1***	2516.6***
	(83.5)	(76.6)	(76.6)
Had a claim for obesity	742.5***	822.9***	822.8***
	(39.4)	(29.2)	(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 endometrial Cancer	2581.9***	2838.8***	2838.3***
	(169.5)	(156.5)	(156.6)
Observations	1074447	2278065	2278065

Model 2: RDD CY 2014 through CY 2016—Comparison of expansion plans

Two models of care provision were utilized for IHAWP. Wellness Plan, for members from 0-100% FPL and those from 101-138% FPL deemed "medically frail" and requesting access to additional services, provided health care services through the traditional Medicaid program. Marketplace Choice, for members from 101-138% not deemed "medically frail" or those deemed "medically frail" but not requesting access to additional services, provided health care services through a premium support model using Qualified Health Plans. Of interest to many is the difference in cost between these two programs. To address this question, RDD was used. This method provides for comparisons between two groups primarily by taking advantage of the similarities between group members clustered around the line between the groups. For example, in the RDD for Wellness Plan and Marketplace Choice, the assumption is made that people within 10% of the 100% of FPL break point between the two programs are very similar and that differences in cost are more likely to be accounted to programmatic differences than to differences between the groups. The results for the RDD comparing Wellness Plan and Marketplace Choice are shown in Table 16.

Results in column 1 reflect the comparison of FMAP members and IWP members who were eligible in both 2014 and 2015; column 2 reflects the comparison for members eligible in 2014; column 3 reflects the comparison for members eligible in 2015; and column 4 reflects the comparison for members eligible in 2016.

Costs

Generally, PMPM costs are higher for MPC members than WP members across time and cost categories. There are only a few cost categories in which in which PMPM costs are significantly higher for MPC and MPC PMPM costs are at no time significantly lower. MPC total costs are significantly higher than WP total costs in the two-year period CY 2014 through CY 2015 and in 2014. Medical costs are higher in all but CY 2016. Prescription costs were higher in the combined two-year period and in CY 2015, while outpatient costs were only higher in CY 2015. Inpatient costs are at no time significantly different between the two groups, while outpatient ER costs are higher for MPC members than WP members across all years. Of particular interest is the fact that only outpatient ER costs remain higher for the MPC group than the WP group during CY 2016, and all other costs show no significant differences. This result is most likely due to the placement of all Medicaid members into MCOs beginning April 2016, though this does not explain the continued difference between outpatient ER costs for the two groups. Table 16 provides insights into the differences in cost and utilization between the two plans.

Table 16: RDD estimates for differences in cost for Marketplace Choice and Wellness Plan by year

	2014-2015 (1)	2014 (2)	2015 (3)	2016 (4)
Costs				
Total cost	48.4**	127.1**	209.5	2.71
	(24.5)	(63.5)	(146.1)	(7.98)
Medical cost	20.8**	78.8***	57.3*	2.89
	(8.32)	(17.1)	(31.8)	(7.97)
Inpatient cost	5.61	8.22	-33.9	17.4
	(15.4)	(30.7)	(47.1)	(12.5)
Rx cost	24.2*	-3.74	82.5**	5.86
	(14.0)	(17.1)	(37.7)	(11.2)
Outpatient cost	18.5	37.6	112.5**	7.15
	(11.4)	(26.2)	(46.9)	(7.08)
Outpatient ER cost	11.6***	23.2**	23.6*	5.78**
	(3.61)	(10.8)	(14.0)	(2.47)
Utilization				
# of prescriptions per month	0.061	-0.41***	0.84**	0.018
	(0.085)	(0.13)	(0.35)	(0.057)
# of ER visits per month	0.0021	-0.028***	0.012	0.0094**
	(0.0045)	(0.010)	(0.016)	(0.0042)
# of pills supplied per month	8.52	-23.4***	50.6**	2.88
	(5.72)	(8.73)	(22.5)	(3.39)

^{*} p<0.10, ** p<0.05, *** p<0.01

Notes: Treatment: MPC individuals, Control: Wellness individuals including those who are designated MPC but receive FFS care

These bias-corrected estimates are based on data-driven (i.e., fully automatic) robust inference procedures for fuzzy RDD design discussed in Calonico, Cattaneo, and Titiunik (2014).³ Standard errors adjusted for clustering at the individual level are in parentheses.

³ Calonico, Sebastian, Matias D. Cattaneo, and Rocio Titiunik. 2014. "Robust Nonparametric Confidence Intervals for Regression-Discontinuity Designs." *Econometrica* 82 (6): 2295-2326.

Limitations

As with all evaluations, there are limitations to the interpretation of these results. 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.

Appendix A: 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

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 11: 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 33: Chlamydia screening in past year
- This measure was removed due to the difficulty of reliably determining whether members were sexually active.
- Measure 17: 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 35: 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 34: Admission rate for COPD, diabetes short-term complications, CHF, and asthma
- Removed due to lack of admissions for diabetes short-term complications.
- Measure 35: Admission rate for diabetes short-term complications (Measures 40A and 40B)
- Removed due to lack of admissions for diabetes short-term complications.
- Measure 36: Pharmacotherapy management of COPD exacerbation (Measures 34A and 34B)
- Removed due to an inability to determine whether hospitalization was for exacerbation of COPD.
- Measure 37: Mental health utilization (Measures 18A and 18B)
 Removed due to the reduced numbers of members in this group as a result of the Integrated Health Home program.
- Measure 38: EPSDT utilization (Measures 24A and 24B)
 Removed due to the small number of members eligible for IWP with EPSDT benefits and not in a transformational program.
- Measure 39: Avoidance of antibiotic treatment in adults with acute bronchitis Removed due to difficulty with measure definition.
- Measure 40: Use of appropriate medications for people with asthma Removed due to removal from HEDIS measures.
- Measure 41: Medication management for people with asthma Removed due to recent articles indicating this measure is not reflective of later outcomes.
- Measure 42: Inpatient utilization-general hospital/acute care Removed due time constraints.
- Measure 43: Plan "all cause" hospital readmissions
 Removed as current HEDIS measures do not allow for risk adjustment.

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 transition to managed care for all Medicaid members, including those in the expansion, into a managed care organization by January 1, 2016, there was a 12-month period of transition and uncertainty for members from October 2015 to 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. We are in the process of acquiring and cleaning the MCO provider lists. If we are able to obtain accurate and verifiable provider lists, we will be able to complete the provider network analyses in the future.