Healthy Michigan Plan Evaluation

Final Summative Report

Demonstration Period Ending December 31, 2018

Project No. 11-W-00245/5

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University of Michigan

Institute for Healthcare Policy & Innovation

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A. Executive Summary

The Centers for Medicare & Medicaid Services (CMS) approved the Healthy Michigan Plan (HMP) Section 1115 Demonstration Waiver (Project No. 11-W-00245/5) on December 30, 2013 for the period December 31, 2013-December 31, 2018. This Waiver expanded Medicaid to adults with incomes up to 133% of the Federal Poverty Level (FPL) beginning April 1, 2014.

The University of Michigan Institute for Healthcare Policy and Innovation (IHPI) was funded by the Michigan Department of Health and Human Services (MDHHS) beginning in June 2014 to conduct the independent evaluation of HMP required by CMS. This evaluation examined the following six domains:

- Domain I: The impact on uncompensated care costs borne by Michigan hospitals;
- Domain II: The effect on the number of uninsured in Michigan;
- Domain III: The impact on increasing healthy behaviors & improving health outcomes;
- Domain IV: The viewpoints of beneficiaries and providers of the impact of HMP;
- Domain V: The impact of contribution requirements on beneficiary utilization;
- Domain VI: The impact of the MI Health Accounts on beneficiary healthcare utilization.

The following conclusions can be drawn about the four evaluation goals:
Evaluation Goal 1: The extent to which the increased availability of health insurance reduces the costs of uncompensated care borne by hospitals. HMP was associated with substantially reduced costs of uncompensated care provided by Michigan hospitals. This reduction was comparable to other states that expanded Medicaid and contrasted with the increase in uncompensated care costs seen in states that did not expand Medicaid over the same period.

Evaluation Goal 2: The extent to which availability of affordable health insurance results in a reduction in the number of uninsured/underinsured individuals who reside in Michigan. HMP substantially reduced the uninsured rate for low-income non-elderly adults by 7 percentage points relative to states that did not expand Medicaid.

Evaluation Goal 3: Whether the availability of affordable health insurance, which provides coverage for preventive and health and wellness activities, will increase healthy behaviors and improve health outcomes. Access to care improved with enrollment in HMP coverage. Enrollees were more likely to have a regular source of care with HMP and fewer reported that it was an ER. A large majority of HMP enrollees used primary care and preventive services. Only one-quarter of HMP enrollees fully completed the Health Risk Assessment (HRA) process, suggesting that HRAs may not be a key motivator for use of primary care and preventive services, but HRA completion was associated with higher rates of preventive service use.

Evaluation Goal 4: The extent to which beneficiaries feel that the Healthy Michigan Program has a positive impact on personal health outcomes and financial well-being. Substantial proportions of HMP enrollees reported improved physical, mental, and oral health as well as financial well-being since enrolling in HMP. HMP coverage was particularly beneficial for enrollees with chronic health conditions that could be diagnosed and treated more effectively. Many enrollees also reported positive perspectives on HMP and that their ability to work had improved since enrolling in HMP.

A fifth evaluation goal was subsequently developed guided by the data collected on former HMP enrollees and individuals eligible for but unenrolled in HMP**:**
Evaluation Goal 5: Examine the experiences of former HMP enrollees and individuals eligible for, but unenrolled in, HMP. Former enrollees most commonly reported that their disenrollment was due to an income increase and/or getting other health insurance coverage. Many former HMP enrollees were uninsured and those with post-HMP coverage experienced challenges paying for coverage and care. Many of those eligible but unenrolled in HMP were unaware of HMP or thought they were ineligible.

This evaluation also highlighted lessons learned when implementing a Medicaid expansion program with new features, including HRAs, financial incentives for healthy behaviors, and MI Health Accounts.

B. General Background Information about the Demonstration

The Centers for Medicare & Medicaid Services (CMS) approved the Healthy Michigan Plan (HMP) Section 1115 Demonstration Waiver (Project No. 11-W-00245/5) on December 30, 2013. This Demonstration Waiver expanded Medicaid to adults with incomes up to 133% of the Federal Poverty Level (FPL) beginning on April 1, 2014. The Michigan Department of Health and Human Services (MDHHS) specified the following six policy goals of HMP in its waiver application to CMS on November 8, 2013, which were incorporated in Section II of the Special Terms & Conditions issued by CMS on December 30, 2013:

- Improve access to healthcare for uninsured or underinsured low-income Michigan citizens;
- Improve the quality of healthcare services delivered;
- Reduce uncompensated care;
- Encourage individuals to seek preventive care and encourage the adoption of healthy behaviors;
- Help uninsured or underinsured individuals manage their health care issues; and
- Encourage quality, continuity, and appropriate medical care.

In addition to these policy goals, the State of Michigan specified the following four goals for the independent evaluation of its Section 1115 in its waiver application, which were incorporated in Section II of the Special Terms & Conditions approved by CMS:

> Study the effects of a demonstration model that infuses market-driven principles into a public healthcare insurance program by examining:
> 1) The extent to which the increased availability of health insurance reduces the costs of uncompensated care borne by hospitals;
> 2) The extent to which availability of affordable health insurance results in a reduction in the number of uninsured/underinsured individuals who reside in Michigan;
> 3) Whether the availability of affordable health insurance, which provides coverage for preventive and health and wellness activities, will increase healthy behaviors and improve health outcomes; and
> 4) The extent to which beneficiaries feel that the Healthy Michigan Program has a positive impact on personal health outcomes and financial well-being.
>
> In addition, the CMS Special Terms and Conditions (STCs) stated that the evaluation should examine the experiences of former HMP enrollees and individuals eligible for, but unenrolled in, HMP.

The University of Michigan Institute for Healthcare Policy and Innovation was funded by MDHHS beginning in June 2014 to conduct the independent evaluation of HMP required by CMS. This evaluation examined the following six domains, as described in the CMS-approved Special Terms & Conditions for the Healthy Michigan Plan Section 1115 Demonstration Waiver covering the five-year period December 31, 2013-December 31, 2018:

- Domain I: The impact on uncompensated care costs borne by Michigan hospitals;
- Domain II: The effect on the number of uninsured in Michigan;
- Domain III: The impact on increasing healthy behaviors & improving health outcomes;
- Domain IV: The viewpoints of beneficiaries and providers of the impact of HMP;
- Domain V: The impact of contribution requirements on beneficiary utilization;

- Domain VI: The impact of the MI Health Accounts on beneficiary healthcare utilization.

On April 1, 2014, Michigan expanded its Medicaid program to include adults with incomes up to 133% of the FPL. To accompany this expansion, the Michigan Adult Benefits Waiver (ABW) was amended and transformed to establish HMP through which the state intended to test innovative approaches to beneficiary cost-sharing and financial responsibility to provide services to the new adult eligibility group. The ABW had provided a limited ambulatory benefit package to previously uninsured, low-income childless adults ages 19 through 64 years with incomes at or below 35% of the FPL who were not eligible for Medicaid. The ABW services had been provided to enrollees through a managed healthcare delivery system utilizing a network of county administered health plans (CHPs) and the Public Mental Health and Substance Abuse provider network. Enrollees receiving coverage under the sunsetting ABW program transitioned to HMP on April 1, 2014.

Individuals in the new adult population with incomes above 100% of the FPL are required to make contributions equal to two percent of their family income toward the cost of their health care. In addition, newly eligible adults with income from 0 to 133% of the FPL are subject to copayments paid through an account operated in coordination with their Medicaid health plan. A MI Health Account was established to track enrollees' contributions and how they were expended. Enrollees receive quarterly statements that summarize the MI Health Account funds balance and flows of funds into and out of the account, and the use of funds for health care copayments. Enrollees have opportunities to reduce their regular monthly contributions or utilization-based copayments by completing recommended healthy behaviors.

HMP enrollees receive a full health care benefit package as required under the Affordable Care Act (ACA), which includes all of the Essential Health Benefits mandated by the ACA. There is no limit on the number of individuals who can enroll.

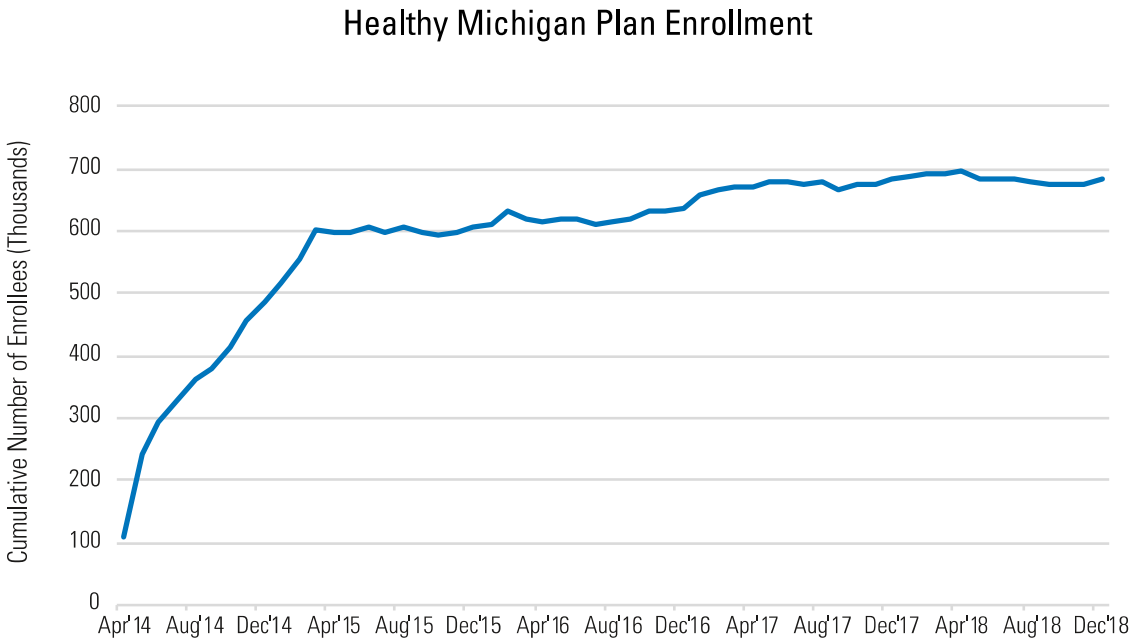
In September 2015, the state sought CMS approval of an HMP amendment to implement additional directives contained in the state law that originally approved HMP (Public Act 107 of 2013). CMS approved the amendment on December 17, 2015, which authorized the Marketplace Option, a premium assistance program for a subset of HMP eligible enrollees. However, the Marketplace Option was never implemented, as it was discontinued by the Michigan legislature in June 2018 before it was launched.

Population groups affected by demonstration

Adult Benefits Waiver enrollees: Low-income, non-pregnant adults ages 19-64 with income below 35% of the FPL who were previously enrolled in the ABW Program were transitioned into HMP effective April 1, 2014. As approved by the CMS, no eligibility redetermination was necessary at the time of transition. However, beneficiaries who transitioned as part of this group were required to complete the eligibility redetermination process at the time of their customary annual date.

"New" HMP enrollees: Adults ages 19-64 who are Michigan residents with incomes at or below 133% of the FPL under the Modified Adjusted Gross Income (MAGI) methodology, who do not qualify for existing Medicare or Medicaid programs, and are not pregnant at the time of application are eligible to receive comprehensive health care coverage through HMP.

During the first year of HMP, enrollment grew to approximately 600,000. As of March 2019, HMP enrollment was approximately 680,000. MDHHS estimates that over one million Michigan residents, most of whom were previously uninsured or underinsured, received coverage through the program at some point since April 2014.



C-D. Evaluation Questions and Hypotheses, Methodology, and Methodological Limitations by Evaluation Report

The evaluation questions/hypotheses, methodology, and methodological limitations are presented here by evaluation report. The full reports are available on the MDHHS and CMS websites.[1]

Reduction in Uncompensated Care (Domain I)[2]

Reduction in Uncompensated Care: Hypotheses

Hypothesis I.1: Uncompensated care in Michigan will decrease significantly.

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[1] The evaluation reports are available on the MDHHS website: https://www.michigan.gov/mdhhs/0,5885,7-339-71547_2943_66797-490239--,00.html and the CMS Healthy Michigan Plan 1115 Waiver website: https://www.medicaid.gov/medicaid/section-1115-demo/demonstration-and-waiver-list/?entry=8517

[2] Buchmueller, T., Levy, H., Nikpay, S., & Rhodes, J. (2019). Report on Hospital Uncompensated Care. *Institute for Healthcare Policy and Innovation.* Available at https://www.michigan.gov/documents/mdhhs/Domain_I_-_Reduction_in_Uncompensated_Care_647133_7.pdf

- Hypothesis I.1A: Uncompensated care in Michigan will decrease significantly relative to the existing trend in Michigan.
- Hypothesis I.1B: Uncompensated care will decrease more by percentage for Michigan hospitals with baseline levels of uncompensated care that are above the average for the state than for hospitals with levels that are below the average for the state.
- Hypothesis I.1C: Uncompensated care will decrease more by percentage for Michigan hospitals in areas with above average baseline rates of uninsurance in the state than for hospitals with below state average levels.
- Hypothesis I.1D: Uncompensated care in Michigan will decrease significantly relative to states that did not expand their Medicaid programs.
- Hypothesis I.1E: Trends in uncompensated care in Michigan will not differ significantly relative to other states that did expand their Medicaid programs.

Reduction in Uncompensated Care: Methods

This analysis documents trends in uncompensated care over time and compares changes in Michigan to changes in states that did not expand their Medicaid programs (non-expansion states) and other states that, like Michigan, expanded Medicaid eligibility under the ACA (expansion states). The main analysis is based on data from Medicare cost reports filed by general acute care hospitals and critical access hospitals located in the 50 states and the District of Columbia. Supplementary analysis is conducted using data from Medicaid cost reports submitted by Michigan hospitals to MDHHS and national data submitted by tax-exempt hospitals to the Internal Revenue Service (IRS).

Reduction in Uncompensated Care: Limitations

The main limitation is that comparisons with other states may not accurately capture the "counterfactual" trend that would have occurred in Michigan had HMP not been implemented.

Reduction in the Number of Uninsured (Domain II)[3]

Reduction in the Number of Uninsured: Hypotheses

Hypothesis II.1: The uninsured population in Michigan will decrease significantly.
- Hypothesis II.1A: The uninsured population in Michigan will decrease significantly relative to the existing trend within Michigan.
- Hypothesis II.1B: The uninsured population in Michigan will decrease more by percentage for subgroups with higher than average baseline rates of uninsurance in the state than for subgroups with lower than state average baseline rates.
- Hypothesis II.1C: The uninsured population in Michigan will decrease significantly relative to states that did not expand their Medicaid programs.

[3] Levy, H., & Buchmueller, T. (2019). Report on Reduction in the Number of Uninsured. *Institute for Healthcare Policy and Innovation.* Available at https://www.michigan.gov/documents/mdhhs/Domain_II_-_Reduction_in_Number_of_Uninsured_647135_7.pdf

- Hypothesis II.1D: The uninsured population in Michigan will decrease to a similar degree relative to states that did expand their Medicaid programs.

Hypothesis II.2: Medicaid coverage in Michigan will increase significantly.

- Hypothesis II.2A: The Medicaid population in Michigan will increase significantly relative to the existing trend in Michigan.
- Hypothesis II.2B: The Medicaid population in Michigan will increase significantly more by percentage for subgroups with rates of uninsurance higher than state average baseline than for subgroups with baseline rate lower than the state average.
- Hypothesis II.2C: The Medicaid population in Michigan will increase significantly relative to states that did not expand their Medicaid programs.
- Hypothesis II.2D: The Medicaid population in Michigan will increase to a similar degree relative to states that did expand their Medicaid programs.

Reduction in the Number of Uninsured: Methods

We analyzed data on health insurance from the American Community Survey for 2008 through 2017. Specifically, we analyzed trends in four outcomes among adults ages 19 through 64: Medicaid, private non-group coverage, employer-sponsored coverage, and no coverage (uninsured). Trends in these outcomes were calculated for all Michigan adults and for subgroups defined by age, family income, race/ethnicity, and geographic region. Trends in Michigan are also compared both to trends in states that did not expand their Medicaid programs and to trends in other expansion states. Multivariable regression analyses were used to control for the possibility of difference between Michigan and other states; control variables include age, education, race/ethnicity, gender, marital status, the interaction of gender and marital status, individual employment, and state/year-level unemployment.

Reduction in the Number of Uninsured: Limitations

The main limitation is that comparisons with other states, even after controlling for the additional variables above, may not accurately capture the "counterfactual" trend that would have occurred in Michigan had HMP not been implemented.

Evaluation of Health Behaviors, Utilization & Health Outcomes (Domain III)[4]

Evaluation of Health Behaviors, Utilization & Health Outcomes: Hypotheses

Hypothesis III.1: Emergency Department Utilization

a. Emergency department (ED) utilization among HMP beneficiaries will decrease from the Year 1 baseline;

[4] Clark, S. J., Cohn, L. M., & Ayanian, J. Z. (2018). Report on Health Behaviors, Utilization, and Health Outcomes in the Healthy Michigan Plan. *Institute for Healthcare Policy and Innovation.* Available at https://www.michigan.gov/documents/mdhhs/Final_Domain_III_Report_and_Appendix_120518_640579_7.pdf

b. HMP beneficiaries who make regular primary care visits (at least once per year) will have lower adjusted rates of ED utilization compared to beneficiaries who do not have primary care visits; and
c. HMP beneficiaries who agree to address at least one behavior change will have lower adjusted rates of ED utilization compared to beneficiaries who do not agree to address behavior change.

Hypothesis III.2: Healthy Behaviors

a. Receipt of preventive health services among the HMP population will increase over time, from the Year 1 baseline;
b. HMP beneficiaries who make regular primary care visits (at least once per year) will have higher rates of general preventive services compared to beneficiaries who do not have primary care visits;
c. HMP beneficiaries who complete an annual HRA will have higher rates of preventive services compared to beneficiaries who do not complete an HRA;
d. HMP beneficiaries who agree to address at least one behavior change will demonstrate improvement in self-reported health status compared to beneficiaries who do not agree to address behavior change; and
e. HMP beneficiaries who receive incentives for healthy behaviors will have higher rates of preventive services compared to beneficiaries who do not receive such incentives.

Hypothesis III.3: Hospital Admissions

a. Adjusted hospital admission rates for HMP beneficiaries will decrease from the Year 1 baseline;
b. HMP beneficiaries who make regular primary care visits (at least once per year) will have lower adjusted rates of hospital admissions compared to beneficiaries who do not have primary care visits; and
c. HMP beneficiaries who agree to address at least one behavior change will have lower adjusted rates of hospital admission compared to beneficiaries who do not agree to address behavior change.

Evaluation of Health Behaviors, Utilization & Health Outcomes: Methods

Data

This report uses administrative claims to analyze enrollees' initial 24 months of HMP-Managed Care (HMP-MC) enrollment. Data were drawn from the MDHHS Data Warehouse, including Medicaid claims across service types (e.g., medical, pharmacy), program enrollment data, demographic characteristics, and completion of HRAs. Additional data on vaccines were extracted from the Michigan Care Improvement Registry (MCIR), the statewide immunization information system.

Study Population

The study population included individuals whose initial month of HMP-MC enrollment occurred between April 2014 and March 2015, and who maintained HMP-MC enrollment for at least 11 of 12 months for each of the next two years from the initial HMP-MC month; enrollees also had to be 19-64 years on the last day of that period. Enrollees with fewer than 11 months of HMP-MC coverage in either year were excluded.

The population of 145,978 enrollees who met study criteria were:

- 54.2% women
- Evenly divided between age groups (19-34, 35-49, 50-64)
- Most likely to have an income at 0-35% of the FPL (61.8%)
- Predominantly white (64.1%)

Variables

Demographic and enrollment files from the MDHHS Data Warehouse were used to identify demographic characteristics (age, gender, income level, prosperity region, health plan). Tables containing data on HRAs were used to identify enrollees who had completed an HRA, and those who had agreed to a healthy behavior change.

The four chronic conditions of interest (asthma, cardiovascular disease, chronic obstructive pulmonary disease (COPD), and diabetes) were identified by applying specifications for standard quality measures (e.g., Healthcare Effectiveness Data and Information Set, or HEDIS®, measures) to each enrollee's Year 1 utilization. Primary care visit patterns were categorized as regular primary care (≥1 visit in Year 1 and Year 2), no primary care (no visit either year), or primary care in one year only.

Outcome measures related to ED utilization were based on HEDIS® specifications. ED visit rates were generated to reflect the number of ED visits per 1,000 member-months. Enrollees were identified as high ED utilizers if they had ≥5 ED visits in the year. Multivariate regression models were used to understand the impact of primary care patterns and HRA completion on ED rates.

Healthy behaviors reflected preventive services included in the HMP Healthy Behavior Incentive Protocol, including preventive care visits, flu vaccine, other adult vaccines, breast cancer screening, cervical cancer screening, colon cancer screening, other types of screening, medical assistance with smoking and tobacco use cessation, and preventive dental care. A summary variable for "any preventive service" reflects receipt of any of the aforementioned services.

Outcome measures related to inpatient utilization were based on HEDIS® specifications. Inpatient utilization rates reflected the number of inpatient stays per 1,000 member-months. Multivariable regression models were used to assess the association of medical-surgical inpatient rates with primary care visits and HRA completion. Additional inpatient measures reflected the number of discharges for asthma, COPD, heart failure, and diabetes per 1,000 enrollees.

Evaluation of Health Behaviors, Utilization & Health Outcomes: Limitations

This study cohort included individuals with 2 years of continuous HMP-MC enrollment, using HEDIS®-based requirements for ≥11 months of enrollment per year. These results do not reflect the overall HMP population, many of whom ended their HMP enrollment prior to 2 years, or had discontinuous enrollment.

Second, the analyses for this report utilized specifications from established quality measures (e.g., HEDIS®, PQI, NQF). However, claims-based measures were impacted by the October 2015 change in the diagnosis coding system from ICD-9 to ICD-10.

Third, the CMS Special Terms & Conditions specified four chronic conditions of interest. Consistent with HEDIS® methodology, these conditions were identified based on enrollees' utilization of services in Year 1. However, this methodology would not identify enrollees who were newly diagnosed with a condition in Year 2.
In addition to the four chronic conditions outlined in the CMS Special Terms & Conditions, enrollees could have a variety of other conditions that require higher-than-average utilization of health services (e.g., liver disease, HIV infection, mental health conditions). Thus, the chronic condition groups in this report represent only a subset of the population of HMP enrollees with chronic illness.

Fourth, demographic characteristics were based on enrollees' first year of enrollment; enrollees who had a change in income, residence, or health plan could be misclassified for their second year.

Fifth, the Domain III evaluation plan was designed to emphasize the HRA and healthy behavior selection as a key feature to affect utilization rates. However, only one quarter of enrollees had a completed HRA, with far fewer completing an HRA in both Year 1 and Year 2.

Finally, the two-year study period provides some insights into utilization patterns, but may not be long enough to appreciate the full impact of HMP features that are designed to increase the use of primary care, encourage greater engagement of enrollees with their health, and promote healthy behavior change.

2016 Healthy Michigan Voices (HMV) Enrollee Survey (Domain IV)[5, 6]

2016 HMV Enrollee Survey: Aims

Aim IV.1: Describe HMP enrollees' consumer behaviors and health insurance literacy, including knowledge and understanding about HMP, their health plan, benefit coverage, and cost-sharing aspects of their plan.
Aim IV.2: Describe HMP enrollees' self-reported changes in health status, health behaviors (including medication use), and facilitators and barriers to healthy behaviors (e.g. knowledge about health and health risks, engaged participation in care), and strategies that facilitate or challenge improvements in health behaviors.
Aim IV.3: Understand enrollee decisions about when, where and how to seek care, including

[5] Goold, S. D., & Kullgren, J. (2018). Report on the 2016 Healthy Michigan Voices Enrollee Survey. *Institute for Healthcare Policy and Innovation.* Available at https://www.michigan.gov/documents/mdhhs/2016_Healthy_Michigan_Voices_Enrollee_Survey_-_Report__Appendices_1.17.18_final_618161_7.pdf
[6] Goold, S. D., & Kullgren, J. (2018). Report on the 2016 Healthy Michigan Voices Enrollee Survey: Supplemental Analyses. *Institute for Healthcare Policy and Innovation.* Available at https://www.michigan.gov/documents/mdhhs/2016_Healthy_Michigan_Voices_Enrollee_Survey_Supplemental_Analyses_-_Report__Appendices_1.17.18_final_618162_7.pdf

decisions about ED utilization.

2016 HMV Enrollee Survey: Methods

Sampling for the *Healthy Michigan Voices (HMV)* enrollee survey was performed monthly, from January to October 2016. At time of sample selection, enrollees had to meet the following inclusion criteria:

- At least 12 months total HMP enrollment in fee for service (FFS) or managed care (MC)
- HMP enrollment (FFS or MC) in 10 of past 12 months
- Have HMP-MC enrollment in 9 of past 12 months
- HMP-MC in the month sampled
- Age between 19 years and 64 years, 8 months
- Complete address, phone number, and FPL fields in the MDHHS Data Warehouse
- Michigan address
- Preferred language of English, Arabic, or Spanish

Eligibility was determined independently for each month's sample, regardless of eligibility in prior months. Enrollees could be selected only once. Data extraction was performed via a secure Virtual Private Network (VPN) connection by a data analyst with specific approval from MDHHS for this purpose, using existing protocols that require two layers of password protection.

The sampling plan was based on four grouped prosperity regions in the state (Upper Peninsula/North West/North East; West/East Central/East; South Central/South West/South East; Detroit) and three FPL categories (0-35%; 36-99%; ≥100%). In total, 4,090 HMP enrollees had complete survey data. The weighted response rate for the 2016 HMV enrollee survey was 53.7%.

Many items on the survey were drawn from established surveys. Additional items specific to HMP (e.g., items about HRAs, understanding of HMP) were developed based on findings from 67 semi-structured interviews with HMP enrollees conducted by the evaluation team between April and August 2015. New items underwent cognitive testing and pre-testing for timing and flow before being included in the survey instrument. Responses were recorded in a computer-assisted telephone interviewing (CATI) system.

The evaluation team generated descriptive statistics for responses to all questions, with weights calculated and applied to adjust for the probability of selection, nonresponse bias, and other factors. Statistical analyses of bivariate and multivariate relationships were also performed.

The 2016 HMV survey was conducted from January-November 2016.

Demographics of the study population:

- Just over half (51.6%) of survey respondents were women, and three-quarters between 19 and 50 years old.
- 61.2% self-identified as white, 26.1% Black or African-American, 8.8% other and 4.0% more than one race.
- 5.2% identified as Hispanic/Latino and 6.2% Arab/Chaldean/Middle Eastern.

- At the time of the survey, 48.8% of respondents reported they were employed or self-employed, 27.6% were out of work, 11.3% were unable to work, and 2.5% were retired.
- 16.7% reported sometimes, often or always needing to have someone help them read instructions, pamphlets, or other written materials from a doctor, pharmacy, or health plan.

2016 HMV Enrollee Survey: Limitations

As with any survey, HMV responses may be biased by social desirability. While the survey was available in three languages, it was not available in all languages spoken by enrollees; however, only 36 sampled enrollees were deemed ineligible for this reason. While many measures were based on those used in large national surveys, some questions were newly developed specifically to assess enrollee perspectives on key features of the HMP program. In addition, this survey was cross-sectional. Bivariate analyses may find relationships between variables that are due to confounding and should be interpreted with caution.

2016-17 Healthy Michigan Voices (HMV) No Longer Enrolled Survey (Domain IV)[7]

2016-17 HMV No Longer Enrolled Survey: Aims

Aim IV.1: Describe HMP enrollees' consumer behaviors and health insurance literacy, including knowledge and understanding about HMP, their health plan, benefit coverage, and cost-sharing aspects of their plan.
Aim IV.3: Understand enrollee decisions about when, where and how to seek care, including decisions about ED utilization.

2016-17 HMV No Longer Enrolled Survey: Methods

Sampling for the survey of individuals no longer enrolled in HMP was performed monthly, from October 2016 to February 2017. The eligible population was defined by applying the following inclusion criteria:

- Any 12-month period between April 2014 and August 2016, with at least 10 of 12 months of HMP enrollment (FFS or MC) and at least 9 months of HMP-MC enrollment
- Not enrolled in HMP or any other Medicaid benefit plan for at least 6 months at the time of sampling
- Last enrolled month was HMP-MC
- Age between 19 years and 64 years 8 months
- Complete address, phone number, and FPL fields in the MDHHS Data Warehouse

[7] Clark, S. J, & Goold, S. D. (2018). Report on the Healthy Michigan Voices 2016-17 Survey of Individuals No Longer Enrolled in the Healthy Michigan Plan. *Institute for Healthcare Policy and Innovation*. Available at https://www.michigan.gov/documents/mdhhs/HMV_No_Longer_Enrolled_2016-2017_Report.9.27.18_647095_7.pdf

- Preferred language of English, Arabic, or Spanish
- Not sampled for the 2016 HMV survey of current enrollees

Eligibility was determined independently for each month's sample, regardless of eligibility in prior months. A sampling framework was constructed to reflect the regional and income characteristics of the target population of former HMP enrollees, based on the final month of HMP enrollment for the population of individuals who met inclusion criteria in September 2016. The sampling framework was based on four grouped prosperity regions (Northern=Upper Peninsula/North West/North East; Central=West/East Central/East; Southern=South Central/South West/South East; and Detroit Metro) and three income categories (0-35% FPL; 36-99% FPL; ≥100% FPL).

Individuals selected in each month's sample were mailed an introductory packet that contained a letter explaining the project, a brochure about the project, and multiple options to indicate a preferred time/day for interview or refusal to participate. Interviewers placed phone calls to individuals who did not refuse by one of those methods, between the hours of 9 am and 9 pm. Surveys were conducted in English, Arabic or Spanish from October 2016 to March 2017. Interviews were recorded with the permission of the respondents.

Survey questions explored individuals' experiences during the period after their HMP coverage ended, including health insurance coverage, access to health services, and unmet health care needs.

Overall, 1,123 individuals completed the survey, resulting in a weighted response rate of 31.4%. The evaluation team generated descriptive statistics for responses to all questions, with weights calculated and applied to adjust for the probability of selection, nonresponse bias, and other factors. Statistical analyses of bivariate and multivariate relationships were performed.

Demographics of the study population:

- About half (48.9%) of survey respondents were 19-34 years old at the time of the survey; 58.6% were men.
- Income level and region closely mirrored the proportions in the sampling plan, with 63.1% of respondents in the 0-35% FPL category during their last month of HMP enrollment and 42.1% residing in the Detroit Metro region.
- Most respondents (59.1%) described their race/ethnicity as white, non-Hispanic.
- Nearly half of respondents (46.0%) had no more than a high school education; only 15.7% had graduated from college.
- Four in five respondents (80.6%) were employed and 72.4% were not married at the time of the survey.
- More than half of respondents (54.5%) reported having at least one chronic disease, and 18.9% rated themselves as being in fair or poor health.

2016-17 HMV No Longer Enrolled Survey: Limitations

As with any survey, HMV responses may be biased by social desirability. The evaluation team worked to minimize this bias by emphasizing in the pre-survey introduction the voluntary nature of the survey, the guarantee that individuals would not be identified in any reports or

presentations, and that their comments – positive or negative – would be helpful in conducting a fair evaluation of HMP.

Findings are based on respondent self-report; current and prior health insurance coverage could not be independently verified. In addition, results reflect a single point in time.

The length of time from the last month of HMP enrollment to the time of survey completion varied from 6 to 20 months; as a result, respondents' comparative assessments of their experiences (e.g., how their current cost and access to health care compares to their previous HMP coverage) may be differentially affected by the variable length of time since HMP ended. To address this potential limitation, months since last HMP enrollment was included in multivariate models; it was not a significant factor in any analysis.

The response rate of 31.4% is lower than the response rate for the 2016 HMV survey of current enrollees (53.7%). This may reflect demographic differences in the sampling frames for the two surveys and the need to use contact information that was 6-20 months old. However, the response rate compares favorably to the response rate for Michigan Medicaid's recent CAHPS® surveys for the HMP population (31.4% in 2017[8]; 33.0% in 2016[9]), and substantially higher than the 4.8% response rate for a telephone survey of enrollees conducted for the evaluation of Indiana's Medicaid expansion program.[10] In addition, there are demographic differences in survey response rates, with higher response rates from respondents who are older and higher-income. The evaluation incorporated the use of weighted data to minimize the effects of non-response.

Primary Care Practitioner (PCP) Survey (Domain IV)[11]

Primary Care Practitioner Survey: Aims

Aim IV.4: Describe primary care practitioners' experiences with HMP beneficiaries, practice approaches and innovation adopted or planned in response to HMP, and future plans regarding care of HMP patients.

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[8] 2017 Michigan Department of Health and Human Services. Healthy Michigan Plan CAHPS® Report. Health Services Advisory Group. October 2017. Available at: https://www.michigan.gov/documents/mdhhs/2017_MI_CAHPS_HMP_Report_Final_608678_7.pdf

[9] 2016 Michigan Department of Health and Human Services. Healthy Michigan Plan CAHPS® Report. Health Services Advisory Group. February 2017. Available at: https://www.michigan.gov/documents/mdhhs/2016_MI_CAHPS_HMP_Report_Final_557746_7.pdf

[10] Healthy Indiana Plan 2.0: POWER Account Contribution Assessment. The Lewin Group, Inc. March 31, 2017. https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/in/Healthy-Indiana-Plan-2/in-healthy-indiana-plan-support-20-POWER-acct-cont-assesmnt-03312017.pdf

[11] Goold, S. D., Tipirneni, R., Haggins, A., Campbell, E., Salman, C., Kieffer, E.,…Lee, S. (2018). Primary Care Practitioners' Views of the Impact of the Healthy Michigan Plan. *Institute for Healthcare Policy and Innovation.* Available at https://www.michigan.gov/documents/mdhhs/PCP_Views_of_the_Impact_of_HMP_-_Report__Appendices_1.16.18_final_618163_7.pdf

Primary Care Practitioner Survey: Methods

We conducted 19 semi-structured telephone interviews with primary care practitioners caring for HMP patients in five Michigan regions selected to include racial/ethnic diversity and a mix of urban and rural communities. Interviews informed survey items and measures and enhanced the interpretation of survey findings.

We then surveyed all primary care practitioners in Michigan with at least 12 assigned HMP patients about practice changes and innovations since April 2014 and their experiences caring for patients with HMP. The final response rate was 56% resulting in 2,104 respondents.

Primary Care Practitioner Survey: Limitations

Measures used in this analysis are self-reported and may be influenced by social desirability and other survey biases. Providers surveyed had to have at least 12 HMP patients, and their experiences may overestimate acceptance of new patients and limit generalizability. Decision making regarding acceptance of new patients may differ for PCPs with fewer or no Medicaid patients or for specialists. Survey items were developed specifically to assess PCP attitudes about their experiences with Michigan's Medicaid expansion, and may not be comparable to other survey items or studies.

2017 Healthy Michigan Voices (HMV) New Enrollee Survey (Domain IV)[12]

2017 HMV New Enrollee Survey: Aims

Note: These aims are from the December 2015 second waiver.
Aim 1: To describe changes over time in health and functional status for HMP enrollees, particularly those with chronic conditions or other indicators of poorer health.
Aim 2: To describe perceptions and understanding of Medicaid coverage, HMP policies, and cost-sharing and how these change over time with enrollment.
Aim 3: To understand financial and non-financial barriers and facilitators to care and how those change over time of enrollment and disenrollment.
Aim 4: To describe HMP enrollees' health behaviors, how they change over time with enrollment and disenrollment in HMP, and barriers and facilitators to improvement in health behaviors.
Aim 7: To describe the experiences and perceptions of HMP enrollees who may have been eligible for HMP for some time before enrolling.

2017 HMV New Enrollee Survey: Methods

[12] Goold, S. D., Kullgren, J., Beathard, E., Kirch, M., & Bryant, C. (2018). 2017 Healthy Michigan Voices New Enrollee Survey Report. *Institute for Healthcare Policy and Innovation*. Available at https://www.michigan.gov/documents/mdhhs/2017_HMV_New_Enrollee_Survey_Report_-_12-18_647384_7.pdf

Sampling for the HMV New Enrollee Survey was performed in June 2017 (750 enrollees sampled) and September 2017 (1,000 enrollees sampled). Sampling was performed in two separate months to minimize bias from seasonal enrollment and employment.

At the time of sample selection, enrollees had to meet each of the following inclusion criteria:

- Initial HMP enrollment (FFS or MC) 5 months prior to sampling month
- HMP-MC enrollment for at least 2 months at the time of sampling
- No other Medicaid enrollment for 2 years prior to sampling
- Age between 19 years and 63 years
- Complete address, phone number, and FPL fields in the MDHHS Data Warehouse
- Michigan address
- Preferred language of English, Arabic, or Spanish

The sampling plan utilized the same combination of four grouped prosperity regions in the state (Upper Peninsula/North West/North East; West/East Central/East; South Central/South West/South East; Detroit) and three FPL categories (0-35%; 36-99%; ≥100%) as was used in the 2016 HMV Enrollee Survey. In total, from June to December 2017 607 new enrollees completed the survey. The weighted response rate for the HMV New Enrollee Survey was 41.0%.

Many items on the survey were drawn from established surveys. Items and scales for which established measures were not available, or which were specific to HMP (e.g., items about HRAs, understanding of HMP), were previously developed based on findings from 67 semi-structured interviews with HMP enrollees, cognitively tested, and used in the 2016 HMV Enrollee Survey. Responses were recorded using computer-assisted telephone interviewing software, programmed with the survey questions.

Descriptive statistics were generated for responses to all questions, with survey weights calculated and applied to adjust for the probability of selection, nonresponse, and other factors. Bivariate and multivariate analyses were also performed.

Demographics of the study population:

- 70.2% had incomes between 0-35% FPL.
- 62.6% were men.
- 55.1% were employed; 52.7% of these were employed full-time.
- 87.3% had at least a high school diploma or equivalent.
- 21.8% had housing insecurity (three or more places lived in the past 3 years) and 13.4% had been homeless in the past 12 months.

2017 HMV New Enrollee Survey: Limitations

As with any survey, HMV responses may be biased by social desirability. While the survey was available in three languages, it was not available in all languages spoken by enrollees; however, only two sampled enrollees were deemed ineligible for this reason. While many measures were based on those used in large national surveys, some questions were newly developed specifically to assess new enrollees' perspectives on key features of HMP, their early experiences with the program, reasons for not applying before, and reasons for enrolling. In addition, this survey was cross-sectional.

Bivariate analyses should be interpreted with caution as they may identify relationships between variables that are due to confounding and small sample sizes may limit the ability to detect relationships.

2017 Healthy Michigan Voices (HMV) Follow-Up Survey (Domain IV)[13]

2017 HMV Follow-Up Survey: Aims

Note: These aims are from the December 2015 second waiver.
Aim 1: To describe changes over time in health and functional status for HMP enrollees, particularly those with chronic conditions or other indicators of poorer health.
Aim 2: To describe perceptions and understanding of Medicaid coverage, HMP policies, and cost-sharing and how these change over time with enrollment.
Aim 3: To understand financial and non-financial barriers and facilitators to care and how those change over time of enrollment and disenrollment.
Aim 4: To describe HMP enrollees' health behaviors, how they change over time with enrollment and disenrollment in HMP, and barriers and facilitators to improvement in health behaviors.
Aim 5: To understand HMP enrollees' decisions about when, where and how to seek care, including decisions about ED utilization.
Aim 6: To understand why enrollees lose or drop HMP coverage and what, if any, source of health insurance coverage they subsequently obtain.

2017 HMV Follow-Up Survey: Methods

Individuals who completed the 2016 HMV Enrollee Survey and consented to be contacted for follow-up were the target population for the 2017 HMV Follow-Up Survey. Out of 4,106 respondents to the 2016 HMV Enrollee Survey, 3,957 (96.4%) consented to be recontacted. From March 2017 to January 2018, 3,104 individuals who participated in 2016 completed the 2017 survey. The 2017 HMV Follow-Up Survey (n=3,104) response rate was 83.4%.

Two survey instruments were developed, one for those who remained enrolled in HMP and one for those who were no longer enrolled in HMP at the time of the 2017 HMV Follow-Up Survey. Many items on each survey were drawn from established surveys. Items and scales for which established measures were not available, or which were specific to HMP (e.g., items about HRAs, understanding of HMP), were previously developed based on findings from 67 semi-structured interviews with HMP enrollees, cognitively tested, and used in the 2016 HMV Enrollee Survey. Surveys were conducted in English, Arabic and Spanish; those who could not speak one of those languages were excluded from participation. Responses were recorded using computer-assisted telephone interviewing software.

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[13] Goold, S. D., Kullgren, J., Beathard, E., Kirch, M., Bryant, C., Tipirneni, R.,…Ayanian, J. Z. (2018). 2017 Healthy Michigan Voices Follow-Up Survey Report. *Institute for Healthcare Policy and Innovation.* Available at https://www.michigan.gov/documents/mdhhs/2017_HMV_Follow-Up_Survey_Report_-_12-18_647386_7.pdf

Descriptive statistics were generated for responses to all questions, with survey weights calculated and applied to adjust for the probability of selection, nonresponse, and other factors. Bivariate and multivariate analyses were also performed.

Demographics of the study population:

- Of the 2017 HMV Follow-Up Survey respondents, 76.8% were still enrolled in HMP ("current enrollees") at the time of the survey and 23.2% were no longer enrolled in HMP ("former enrollees") at the time of the survey.
- 19.9% of current and former enrollees had incomes 100-133% FPL, while 52.3% had incomes between 0-35% FPL. Former enrollees were more likely than current enrollees to have an income of 36-99% FPL (32.7% vs. 26.2%) and to have an income of 100-133% FPL (26.5% vs. 17.9%).
- 53.0% of current and former enrollees were women.
- 88.8% of current and former enrollees had at least a high school diploma or equivalent.

2017 HMV Follow-Up Survey: Limitations

The 2017 HMV Follow-Up Survey was administered with those who consented to be recontacted in the 2016 HMV Enrollee Survey. Out of 4,106 respondents in 2016, 3,957 (96.4%) consented. While our analysis of non-response bias indicated little difference between those who consented to be recontacted compared to those who did not, there may be some bias due to sampling only those who consented to follow-up.

While the survey was available in three languages, it was not available in all languages spoken by HMP enrollees; however, only 2 sampled enrollees were deemed ineligible because the survey was not available in their language.

As with any survey, HMV survey responses may reflect social desirability or recall bias. While many measures were based on those used in large national surveys, some questions were newly developed specifically to assess reasons for and experiences related to disenrollment. A few longitudinal analyses included in this report included survey items that were worded slightly differently on the 2017 HMV Follow-Up Survey compared to the 2016 HMV Enrollee Survey.

Survey responses were supplemented with claims data from Medicaid records. These data are limited to services enrollees received while actively enrolled in HMP and other Medicaid programs. We did not distinguish between services received during enrollment in HMP and during enrollment in other Medicaid programs. Data for former HMP enrollees is therefore limited to their time enrolled in Medicaid programs, and thus we do not have information on claims for those with private or no insurance coverage after they left HMP.

Bivariate analyses should be interpreted with caution as they may identify relationships between variables that are due to confounding, and small sample sizes may limit the ability to detect statistical associations.

2017 Interviews with Individuals Eligible But Unenrolled (EBU) in the Healthy Michigan Plan (Domain IV)[14]

2017 Interviews with Individuals EBU in HMP: Aims

Note: These aims are from the December 2015 second waiver.
Aim A: To understand the extent of awareness, knowledge, and understanding of HMP among those eligible but unenrolled.
Aim B: To describe the experiences and perceptions of being uninsured among those eligible but unenrolled.
Aim C: To understand decisions about when, where and how to seek care, including decisions about ED utilization among those eligible but enrolled.

2017 Interviews with Individuals EBU in HMP: Methods

The sampling goal was to recruit and interview 25 people who were likely eligible for HMP but who had never enrolled. Eligibility criteria were: currently uninsured Michigan resident, age 19-64, not pregnant, income ≤133% FPL, and never enrolled in HMP. Recruitment letters and flyers were sent to community organizations and posted in regions across the state of Michigan. Ads in newspapers and Craigslist were also used. We aimed for a diverse sample with regard to age, race/ethnicity, gender and region. Eligibility was determined by self-report during telephone screening using a simplified form used to calculate MAGI to assess income eligibility. HMP and Medicaid enrollment history were later cross-checked with the MDHHS Data Warehouse using interviewees' name and date of birth.

The semi-structured interview guide was developed by the Domain IV evaluation team, and approved by MDHHS. Interview domains included: (a) awareness, perceptions and understanding of HMP, its covered benefits and costs, and reasons for not enrolling in the program; (b) health care utilization in the last 12 months and forgone care; (c) impact of insurance status on finances; (d) perceptions of insurance status; (e) interest in signing up for HMP. Domain IV staff conducted 30 in-person, audio-recorded interviews that lasted 30-45 minutes on average.

The in-depth qualitative interviews were conducted from May to September 2017. Of the 30 completed interviews, data from the MDHHS Data Warehouse showed that 8 interviewees were not eligible to participate due to current or prior enrollment in HMP for longer than 3 months (n=4) or current enrollment in Medicaid (n=4). These 8 interviews were excluded from the sample, resulting in 22 interviews included in this analysis.

[14] Kieffer, E., Beathard, E., & Solway, E. (2018). 2017 Report on Interviews with Individuals Eligible but Unenrolled in the Healthy Michigan Plan. *Institute for Healthcare Policy and Innovation.* Available at https://www.michigan.gov/documents/mdhhs/HMP_Eligible_but_Enenrolled_2017_Survey_Report_-_Final_640578_7.pdf

Audio recordings of the interviews were transcribed verbatim and coded using Dedoose software. Thematic analysis was conducted by two qualitative data analysts with discrepancies in coding resolved by consensus.

Interviewee characteristics:

- All interviewees were uninsured at the time of the interview, although two had VA care.
- 59% of those interviewed were under age 35, with the others roughly evenly distributed between 35-50 and 51-64 years of age.
- 64% of interviewees were men and 68% were white.
- 72% of interviewees were employed.
- The sample was geographically diverse, representing all major regions of Michigan.
- 36% had been uninsured for less than 1 year (mostly between 6-11 months), 23% for approximately 1 year, and 36% for more than 1 year (mostly 2 or more years).

2017 Interviews with Individuals EBU in HMP: Limitations

This population of uninsured people was hard to find. Recruitment took several months. While we cannot be certain that they are representative of the entire population of those eligible but unenrolled in HMP, we did recruit and interview a diverse set of interviewees with regard to region, age, race/ethnicity and gender.

All data were obtained by self-report, including income. We could not confirm that each interviewee was eligible for HMP. Responses may be affected by inaccurate recollection and by social desirability.

Because the interviews were only available to English speakers, the results are not generalizable to HMP-eligible but unenrolled people whose primary language is not English.

We learned that more people than anticipated had insurance for more than 6 months in the year prior to the interview. Eight interviewees reported having health insurance during some part of the last 12 months and two had VA care. This influenced their experiences and perspectives about care they received during this period and likely reduced their reports of forgone care due to cost.

Finally, we did not verify HMP or Medicaid enrollment in the Data Warehouse until data collection was completed. Eight interviewees were ultimately excluded because they had been enrolled in HMP for three months or longer or were currently enrolled in Medicaid.

2018 Interviews with Individuals Eligible But Unenrolled (EBU) in the Healthy Michigan Plan (Domain IV)[15]

[15] Kieffer, E., Solway, E., Lewallen, M., Djimandjaja, C., Skillicorn, J., Beathard, E.,…Clark, S. J. (2019). 2018 Report on Interviews with Individuals Eligible but Unenrolled in the Healthy Michigan Plan. *Institute for Healthcare Policy and Innovation.* Available at https://www.michigan.gov/documents/mdhhs/Domain_IV_-_2018_Eligible_But_Unenrolled_Report_652005_7.pdf

2018 Interviews with Individuals EBU in HMP: Aims

Note: These aims are from the December 2015 second waiver.
Aim A: To understand the extent of awareness, knowledge and understanding of HMP among those eligible but unenrolled.
Aim B: To describe the experiences and perceptions of being uninsured among those eligible but unenrolled.
Aim C: To understand decisions about when, where and how to seek care including decisions about ER utilization among those eligible but unenrolled.

2018 Interviews with Individuals EBU in HMP: Methods

The target population was individuals who would be eligible for HMP (age 19-64, income ≤133% FPL) and who had been uninsured for at least one year at the time of screening. We sought to recruit a diverse sample with regard to age, race/ethnicity, gender and region. Screeners used self-reported income and household size to calculate MAGI to estimate income eligibility. HMP and Medicaid enrollment history were cross-checked with the MDHHS Data Warehouse. From May to September 2018, trained staff conducted the 16 English-language audio-recorded telephone interviews. The interviews were transcribed verbatim and coded using Dedoose software.
Interviewee characteristics:

- All interviewees had been uninsured for at least 12 months at the time of screening. Of the 16 interviewees, 11 had no history of HMP enrollment and 5 had HMP prior to January 2017.
- Twelve interviewees were employed, including five full-time and seven part-time.
- All but one interviewee had achieved at least high school graduation, including seven high school graduates, three with Associate's degrees and five with Bachelor's degrees.
- Half of the interviewees were age 24-34, five were age 35-50 and three were age 51-64. Seven interviewees were men and nine were women. Seven self-identified as non-Hispanic white, seven as African American and two as Hispanic.
- Eight of Michigan's 10 prosperity regions were represented.

2018 Interviews with Individuals EBU in HMP: Limitations

Recruitment of individuals who were uninsured and eligible for HMP required considerable time and effort. Self-reported annual income and household size reflected their status at the time of screening, not for the 12 months prior to screening. Thus, we cannot be certain that each interviewee was eligible for HMP during the entire year. Because interview data were based on self-report, inaccurate recollection and social desirability bias may have influenced the interview process and responses.

Impact of Contribution Requirements & MI Health Accounts (Domain V/VI)[16]

Impact of Contribution Requirements & MI Health Accounts: Hypotheses

Hypothesis V/VI.1: Cost-sharing implemented through the MI Health Account framework will be associated with beneficiaries making more efficient use of health care services, as measured by total costs of care over time relative to their initial year of enrollment, and relative to trends in the HMP population below 100% of the FPL that face similar service-specific cost-sharing requirements but not additional contributions towards the cost of their care.

Hypothesis V/VI.2: Cost-sharing implemented through the MI Health Account framework will be associated with beneficiaries making more effective use of health care services relative to their initial year of enrollment, as indicated by a change in the mix of services from low-value (e.g., non-urgent ED visits, low priority office visits) to higher-value categories (e.g., emergency-only ED visits, high priority office visits), and relative to trends in the HMP population below 100% of the FPL that face similar service-specific cost-sharing requirements but not additional contributions towards the cost of their care.

Hypothesis V/VI.3: Cost-sharing and contributions implemented through the MI Health Account framework will not be associated with beneficiaries dropping their coverage through HMP.

- Beneficiaries above 100% of FPL who have few health care needs may consider dropping coverage due to the required contributions. However, those contributions do not begin until 6 months after enrollment, and can be reduced by 50% based on healthy behaviors. Therefore, we expect most beneficiaries will have little incentive to let their enrollment lapse, despite continued eligibility. To determine the prevalence of coverage drops due to cost-sharing, we will monitor compliance with contribution requirements and use the HMV survey to assess reasons for failure to re-enroll.

Hypothesis V/VI.4:

A. Exemptions from cost-sharing for specified services for chronic illnesses and rewards implemented through the MI Health Account framework for completing an HRA with a PCP and agreeing to behavior changes will be associated with beneficiaries increasing their healthy behaviors and their engagement with healthcare decision-making relative to their initial year of enrollment.
B. This increase in healthy behaviors and engagement will be associated with an improvement in enrollees' health status over time, as measured by changes in elements of their HRAs and changes in receipt of recommended preventive care (e.g., flu shots, cancer screening) and adherence to prescribed medications for chronic disease (e.g., asthma controller medications).

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[16] Hirth, R. A., Cliff, E. Q., Kullgren, J., Fendrick, A. M., Clark, S. J., Beathard, E.,…Ayanian, J. Z. (2018). Report on the Impact of Cost Sharing in the Healthy Michigan Plan. *Institute for Healthcare Policy and Innovation.* Available at https://www.michigan.gov/documents/mdhhs/UM_HMP_Eval_Domain_VVI_Report_7-30_Appendix_Included_629937_7.pdf

Impact of Contribution Requirements & MI Health Accounts: Methods

Data

To find out how cost-sharing affected behavior, we focused on those enrollees who had experience with the cost-sharing features of HMP. Cost-sharing begins after six months of continuous enrollment in an HMP managed care plan. We used enrollment data from the MDHHS Data Warehouse to determine our study population-and included enrollees who met the following criteria:

- First month of HMP-MC between April 2014 and March 2015 (1st year of HMP)
- HMP-MC enrollment for at least 18 consecutive months
- Between 22 and 62 years old in 2014
- Not enrolled in a special program (e.g. nursing home care, hospice care)

We analyzed data from a 30-month period (April 2014-September 2016). Enrollees in other Medicaid programs for a portion of this 30 months were included if they met the criteria above. For some analyses, we used survey data as described in the related report.

Analysis

For all hypotheses, we completed statistical analyses of multivariate relationships between our outcomes (e.g. total spending, service use, disenrollment) and our key explanatory variables of interest, cost-sharing and income as a percent of the FPL. We used linear and non-linear regression techniques that have been validated to provide accurate associations between variables and tested our results with alternative models. For hypotheses 1 and 2, we compared spending and use of preventive care and other services for three different income groups: 0-35% FPL, 36-99% FPL, 100+% FPL. Since many in the 0-35% group had no reported income, they were effectively exempt from cost-sharing. Those in the 36-99% category faced co-payments for services used but not monthly contributions, and those in the 100+% category faced both co-payments and monthly contributions. For hypothesis 3, we compared disenrollment for those who had cost-sharing against those who did not, and especially focused on those close to 100% FPL. For hypothesis 4, we examined whether enrollees with a completed an HRA were more likely to use a preventive service.

Demographics of the study population:
The population of 158,369 enrollees who met the selection criteria were:

- 55% female
- 64% white
- Likely to live in the Detroit Metro area (42%)
- Likely to have an income at 0-35% FPL (58%)

Impact of Contribution Requirements & MI Health Accounts: Limitations

This study has several limitations. First, the results should be interpreted cautiously due to the lack of a control group of similar enrollees not subject to co-payments and monthly contributions. Second, the classification into co-pay exempt and co-pay likely as a proxy for high- and low-value services is not straightforward and relied on the likelihood of cost-sharing rather than a direct assessment of value and encompassed only a fraction of all services. Because

cost-sharing was imposed infrequently for many services, the set of commonly used services with a high likelihood of co-payments was limited. Third, the relationship between preventive service use and reward receipt may reflect correlations due to the same people pursuing both rewards and preventive services rather than reward receipt causing subsequent preventive care use. Fourth, the 2016-17 HMV No Longer Enrolled Survey does not allow direct comparison to those who continued enrollment.

E. Results by Evaluation Goals

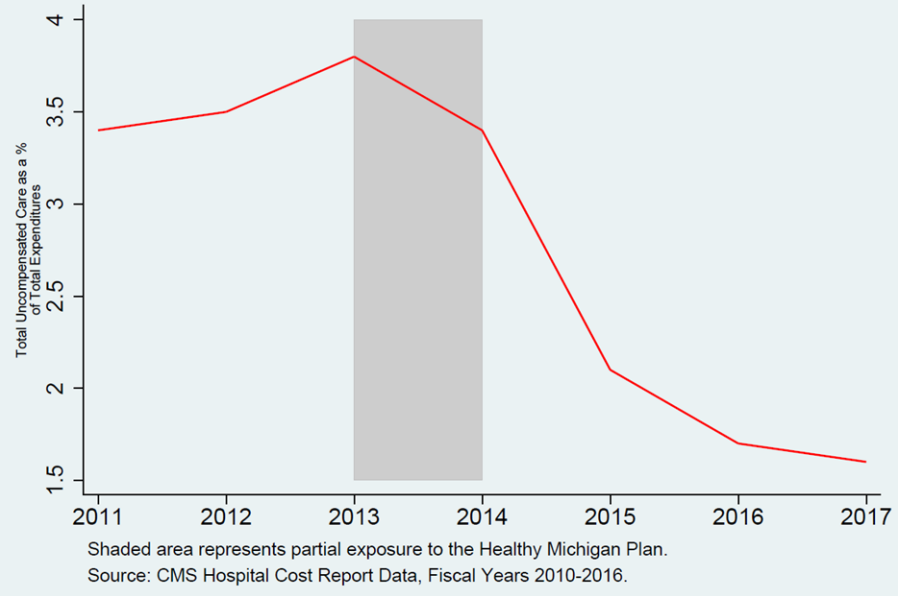
Evaluation Goal 1: Increased availability of health insurance reduces the costs of uncompensated care borne by hospitals.

The findings related to this evaluation goal are from the Domain I report.

Reduction in uncompensated care

Between 2013, the final year prior to any exposure to HMP, and 2015, the first year in which all Michigan hospital cost reports were exposed to a full year of the program, the average costs of uncompensated care provided by Michigan hospitals declined by $3.4 million, a decline of over 40%. Uncompensated care as a percentage of total hospital expenditures declined from 3.8% in 2013 to 2.1% in 2015 (Figure 1) (Domain I: Hypothesis I.1A). Reductions in uncompensated care were greatest among Michigan hospitals that provided baseline levels of uncompensated care at or above the average for the state; these hospitals exhibit a 57% decline in uncompensated care between 2011-2013 and 2015-2017 (Domain I: Hypothesis I.1B). Reductions in uncompensated care were larger for hospitals located in areas where a higher percentage of the population was uninsured at baseline (Domain I: Hypothesis I.1C). Uncompensated care declined significantly more in Michigan than in states that did not expand their Medicaid programs (Domain I: Hypothesis I.1D). In contrast, uncompensated care increased between 2011-13 and 2015-2017 in non-expansion states (Domain I: Hypothesis I.1D). The reduction in uncompensated hospital care observed in Michigan was comparable to the reductions observed in other expansion states (Domain I: Hypothesis I.1E).

Figure 1. Uncompensated care across Michigan hospitals: 2011-2017



Evaluation Goal 2: Availability of affordable health insurance results in a reduction in the number of uninsured/underinsured individuals who reside in Michigan.

The findings included under this evaluation goal include enrollees' insurance status prior to HMP and experiences applying for HMP, and they are from reports from Domains II and IV (HMV surveys).

Reduction in the number of uninsured

Between 2013 and 2017, Medicaid coverage among non-elderly adults in Michigan increased by 5 percentage points, from 14 percent to 19 percent, and uninsurance was cut in half, dropping from 16 percent to 7 percent (Domain II: Hypothesis II.2A, Hypothesis II.1A). Gains in coverage were largest among non-elderly adults with lower-income in Michigan (Domain II: Hypothesis II.2B). Among non-elderly adults in families with incomes below 138 percent of the FPL, uninsurance fell by 17 percentage points, dropping from 31 percent to 13 percent (Domain II: Hypothesis II.1B). Coverage increased in every one of the state's 10 prosperity regions, with the largest overall gains in coverage occurring in the regions that had the lowest levels of coverage at the outset: the Upper Peninsula (Region 1) and the Northeast Region (Region 3) (Figure 2, Figure 3) (Domain II: Hypothesis II.2B). Not all of these gains in coverage are directly attributable to HMP; other ACA programs such as the insurance marketplace and the improving economy likely contributed as well. In order to isolate the effect of HMP, we compare Michigan to states that did not expand their Medicaid programs. Based on this comparison, we conclude that HMP increased Medicaid coverage among all non-elderly adults in Michigan by 5 percentage points (a statistically significant increase) and reduced uninsurance by 1 percentage point in 2017 (a statistically non-significant change) (Domain II: Hypothesis II.2C, Hypothesis II.1C). Among non-elderly adults with family incomes below 138 percent of the FPL in 2017, HMP increased Medicaid coverage by 12 percentage points and reduced uninsurance by 7 percentage points (both statistically significant changes) (Domain II: Hypothesis II.2C, Hypothesis II.1C). We also compare Michigan to other states that expanded their Medicaid programs. Based on this comparison, we conclude that HMP achieved coverage

gains that were about the same as those observed in other expansion states (Domain II: Hypothesis II.1D, Hypothesis II.2D).

Figure 2. Fraction uninsured in Michigan by prosperity region

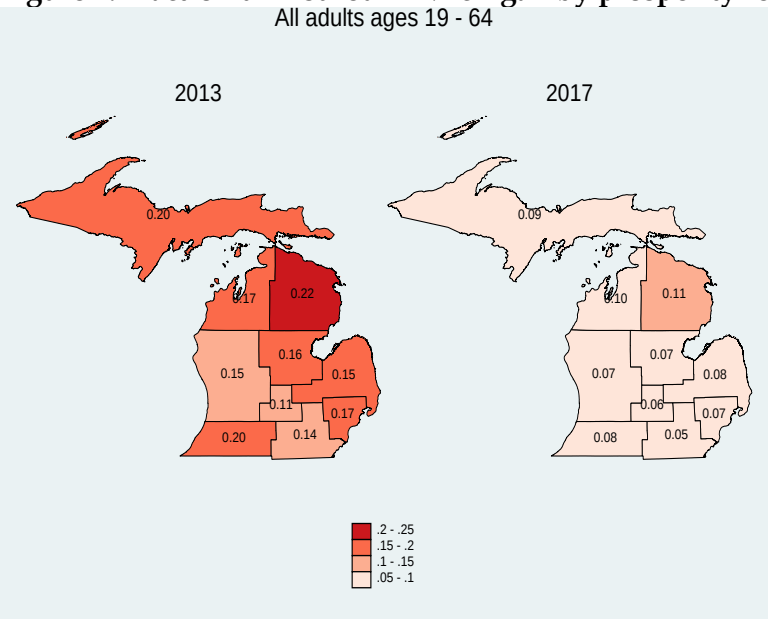
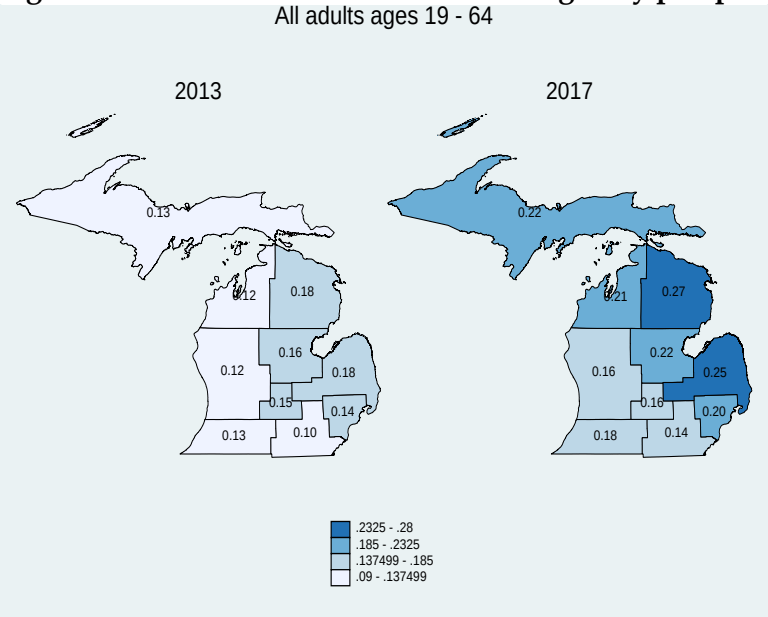


Figure 3. Fraction with Medicaid in Michigan by prosperity region



Insurance status prior to HMP

Among respondents to the 2016 HMV Survey, 57.9% did not have insurance at any time in the year before enrolling in HMP. Of those who had insurance at any time in the year before

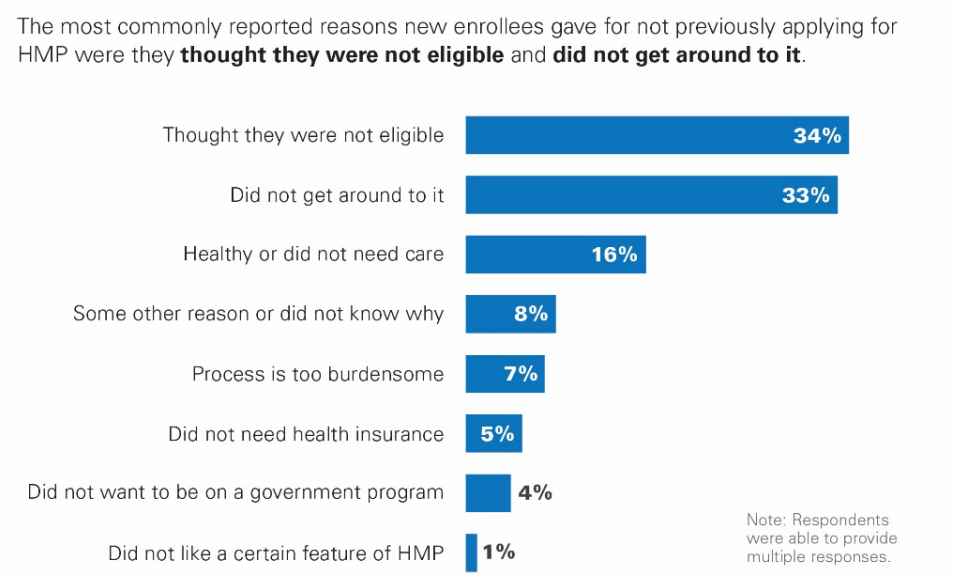
enrolling, 50.8% had Medicaid or another state program, and 26.2% had insurance through a job or union (Domain IV: 2016 HMV Survey: Descriptive Finding).

Among respondents to the 2017 HMV New Enrollee Survey, 47.9% were uninsured for all 12 months prior to HMP enrollment, 24.2% were uninsured for some of the 12 months, and 27.9% were insured for all 12 months prior to HMP enrollment. There were no statistically significant relationships between new enrollees' insurance status in the 12 months prior to HMP enrollment and their FPL or employment status. The most commonly reported reasons why new enrollees were without insurance for some or all of the 12 months prior to enrollment included: not having a job (30.2%), it was too expensive (non-specific) (24.3%), their job does not offer insurance (13.2%), and other reasons (14.3%) that commonly included personal life changes such as moving across states, aging off of parent's policy, divorce, or imprisonment (Domain IV: 2017 HMV New Enrollee Survey: Aim 7).

Reasons for not applying to HMP

Among respondents to the 2017 HMV New Enrollee Survey who reported being without insurance for two months or more in the 12 months prior to enrollment, 32.3% said there was a time when they knew about HMP but did not apply. The most commonly reported reasons for not applying included: thinking they were not eligible (33.7%), they did not get around to it (33.2%), and because they were healthy or did not need care (16.3%). Fewer new enrollees said the process was too burdensome (7.4%), they did not need health insurance (4.6%), did not want to be on a government program (3.5%), or provided some other reason or said they did not know why (8.4%). Very few new enrollees (1.0%) said the reason they did not apply was because they did not like a certain feature of HMP (Figure 4) (Domain IV: 2017 HMV New Enrollee Survey: Aim 7).

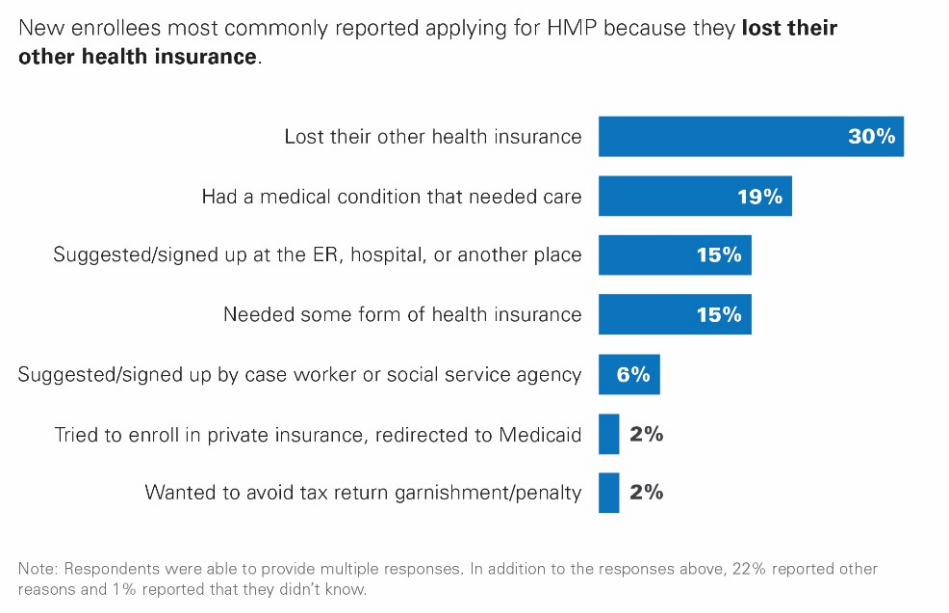
Figure 4.



Applying for HMP

Respondents to the 2017 HMV New Enrollee Survey reported applying for HMP because they lost their other health insurance (29.6%), had a medical condition that needed care (19.2%), it was suggested and/or they were signed up at the emergency room (ER), hospital, or another place (15.2%), they needed some form of health insurance (15.0%), or for some other reason (21.5%) (Figure 5). Few new enrollees (4.9%) reported that they had problems with the HMP application and enrollment process. Almost half (45.2%) said they tried to keep their existing doctor or clinic when they chose their health plan and primary care provider (PCP). Of those, 82.0% said they were able to keep their doctor or clinic (Domain IV: 2017 HMV New Enrollee Survey: Aim 7).

Figure 5.



Evaluation Goal 3: Availability of affordable health insurance, which provides coverage for preventive and health and wellness activities, will increase healthy behaviors and improve health outcomes.

The findings included under this evaluation goal include enrollees' access to care, use of care, HRA completion, and the prevalence and type of chronic health conditions among HMP enrollees. Sources of findings related to this evaluation goal include reports from Domains III, IV (HMV surveys and PCP survey), and V/VI.

<u>Access to care and use of care</u>

Access to care

Compared to before enrolling in HMP, the majority of respondents to the 2016 HMV Survey reported equal or better access to primary care (93.7%), prescription medications (85.2%), help with staying healthy or preventing health problems (84.5%), dental care (75.4%), specialty care (67.0%), and mental health care (50.8%) (Domain IV: 2016 HMV Survey: Aim IV.1).

PCP Survey respondents reported that HMP enrollees, compared to those with private insurance, more often had difficulty accessing specialists, medications, mental health care, dental care, treatment for substance use and counseling for behavior change (Domain IV: PCP Survey: Aim IV.4).

Forgone care

Among respondents to the 2016 HMV Survey, 33.0% of enrollees reported not getting care they needed in the 12 months before HMP enrollment; 77.5% attributed this to concern about the cost. In the past 12 months of HMP enrollment, 15.6% reported forgone care; 25.4% attributed that to concern about the cost (Domain IV: 2016 HMV Survey: Aim IV.1).

Among respondents to the 2017 HMV New Enrollee Survey, 20.4% reported not getting health care they needed in the 12 months before enrollment; 63.4% attributed this to lack of insurance coverage and 24.5% attributed this to cost. In the 12 months before enrollment, 34.7% reported not getting dental care they needed; 64.8% attributed this to lack of insurance coverage and 29.8% attributed this to cost. New enrollees with chronic conditions were more likely than those without to have forgone dental care prior to HMP enrollment (38.9% vs. 26.3%) (Domain IV: 2017 HMV New Enrollee Survey: Aim 3).

Among respondents to the 2017 HMV Follow-Up Survey, 7.8% of current enrollees reported not getting the health care they needed in the last 12 months. Among current enrollees who reported not getting the health care they needed, the most commonly reported types of forgone health care were primary care (43.2%) and specialty care (28.3%). The most commonly reported reason for not getting the health care they needed, regardless of the type of care, was difficulty getting an appointment (25.7%). One in six (16.4%) current enrollees reported not getting the dental care they needed in the last 12 months. In multivariate analyses limited to current enrollees, individuals with a chronic condition (adjusted odds ratio (aOR)=1.45) or a mental health condition (aOR=1.60) were more likely than individuals without these conditions to report forgone dental care in the last 12 months (Domain IV: 2017 HMV FLUP Survey: Aim 3).

Regular source of care

Among respondents to the 2016 HMV Survey, 73.8% had a usual place they would go for health care in the 12 months before enrolling in HMP. Of those, 16.8% said that place was an urgent care center and 16.2% reported the ER, while 65.1% reported a doctor's office or clinic. In the past 12 months of HMP enrollment, 92.2% reported having a usual place they would go for health care. Of those, 5.8% said that place was an urgent care center and 1.7% reported the ER, while 91.7% reported a doctor's office or clinic (Domain IV: 2016 HMV Survey: Aim IV.2).

Among respondents to the 2017 HMV New Enrollee Survey, 63.5% reported having a place they would usually go for health care in the 12 months before enrolling in HMP. Of those, 57.3% said that place was a doctor's office, 13.1% a clinic, 18.0% an urgent care, and 9.3% reported the ER. New enrollees were less likely to have a regular source of care prior to HMP enrollment compared to enrollees surveyed in 2016 who had been enrolled for at least one year (Domain IV: 2017 HMV New Enrollee Survey: Aim 3).

Among respondents to the 2017 HMV Follow-Up Survey, 93.8% of current enrollees reported having a place they would usually go when they need a checkup, feel sick, or want advice about their health in the last 12 months. Among those, 69.7% reported a doctor's office, 20.5% a clinic, 6.1% an urgent care/walk-in clinic, and 2.6% reported the ER as their regular source of care. Current enrollees who reported a PCP visit in the past 12 months were much less likely than those who did not to report having the ER or urgent care as a regular source of care in the last 12 months (2.4% vs. 15.0%) (Domain IV: 2017 HMV FLUP Survey: Aim 5).

Use of primary care

Most of the Domain III study population (71.7%) made regular primary care visits, defined as at least one primary care visit in both Year 1 and Year 2. About one in six (17.4%) had a primary care visit in one year only, and 11.0% of enrollees made no primary care visits in either year. Among enrollees with one of the four chronic conditions of interest, over 90% had regular primary care visits, compared with only two-thirds of enrollees who had none of the four conditions (Domain III: Descriptive Finding).

Among respondents to the 2016 HMV Survey, 20.6% had not had a primary care visit in more than five years before enrolling in HMP. Most (85.2%) of those who reported having a PCP had a visit with their PCP in the past 12 months of HMP enrollment (Domain IV: 2016 HMV Survey: Aim IV.2). Among those who saw their PCP, 83.9% said it was very easy or easy to get an appointment with their PCP (Domain IV: 2016 HMV Survey: Aim IV.1).

Among respondents to the 2017 HMV Follow-Up Survey, 85.6% of current enrollees reported seeing their PCP in the past 12 months; 92.9% of current enrollees had a claim for at least one primary care visit. Among those who reported not seeing their PCP in the past 12 months, the most common reason given was that they were healthy and did not need to see a provider (57.0%) (Domain IV: 2017 HMV FLUP Survey: Aim 5).

Among respondents to the PCP Survey, 52% reported an increase in new patients to a great or to some extent, 56% reported an increase in the number of new patients who hadn't seen a PCP in many years, 51% reported established patients who had been uninsured gained insurance, 41% said that almost all established patients who request a same or next day appointment can get one and 34% said the proportion getting those appointments had increased over the past year, most practices hired clinicians (53%) and/or staff (58%) in the past year, and 56% reported consulting with care coordinators, case managers and/or community health workers (Domain IV: PCP Survey: Aim IV.4).

Emergency department use

Among the Domain III study population, 3.5% of enrollees were high ED utilizers (≥5 ED visits) in Year 1, as were 3.4% in Year 2. High ED utilizers were more likely to be women, younger than 50 years, black, or with one of the four chronic conditions of interest (Domain III: Descriptive Finding). The rate of ED visits per 1,000 member-months decreased significantly from 71.03 in Year 1 to 69.50 in Year 2 for the overall Domain III study population. Enrollees with one of the chronic conditions of interest also demonstrated significant decreases in ED rates from Year 1 to Year 2. In contrast, enrollees who did not have a chronic condition

demonstrated an increase in ED visit rates from Year 1 to Year 2 (Domain III: Hypothesis III.1.a). Enrollees who had regular primary care visits had higher adjusted ED visit rates in Year 2 compared to enrollees who had no primary care visits. This pattern was consistent for both enrollees with one of the chronic conditions of interest, as well as those without a chronic condition (Domain III: Hypothesis III.1.b). Enrollees who agreed to address at least one behavior change had lower adjusted ED visit rates in Year 2 compared to enrollees who did not complete an HRA. This pattern was consistent for enrollees with one of the chronic conditions of interest, and those without chronic conditions (Domain III: Hypothesis III.1.c).

Among respondents to the 2016 HMV Survey, 28.0% of those who visited the ER in the past year said they called their usual provider's office first, of which three-quarters (75.7%) were advised to go to the ER by their provider. Of those who visited the ER in the past year who did not call their usual provider first, 75.1% said the ER was the closest place to receive care, which did not differ by region; 64.3% said it was too serious for the doctor's office, 63.6% said that their doctor's office was closed, 26.1% said they could not miss work or school, 20.3% arrived by ambulance and 19.4% said they get most of their care at the ER. Among all respondents, 64.0% said they were more likely to contact their usual doctor's office before going to the ER than before they had HMP (Domain IV: 2016 HMV Survey: Aim IV.3).

Among respondents to the 2017 HMV Follow-Up Survey, 33.3% of current enrollees reported going to the ER for care in the past 12 months. Current enrollees who reported a PCP visit in the past 12 months were more likely than those who did not to say they tried to contact their PCP before going to the ER (21.3% vs. 8.4%) (Domain IV: 2017 HMV FLUP Survey: Aim 5).

Respondents to the PCP Survey identified major influences for non-urgent ER use as the ability to obtain care without an appointment, the place patients are used to getting care, and access to pain medicine. Among PCP Survey respondents, 88% accepted major or some responsibility as a PCP to decrease non-urgent ER use; 30% felt that they could influence non-urgent ER use by their patients a great deal and 44% said they could do so somewhat. Many PCPs reported offering services to avoid non-urgent ER use, such as walk-in appointments, 24-hour telephone triage, weekend and evening appointments, and care coordinators or social work assistance for patients with complex problems. PCPs recommended PCP practice changes, ER practice changes, patient educational initiatives, and patient penalties/incentives when asked about strategies to reduce non-urgent ER use (Domain IV: PCP Survey: Aim IV.4).

Among the Domain V/VI study population, ED use declined from the initial months of continuous enrollment (26% at 0-6 months) to the later months (17% at 25-30 months) (Domain V/VI: Hypothesis V/VI.2).

Inpatient utilization

For the overall Domain III study population, unadjusted medical, surgical and maternity inpatient rates increased from Year 1 to Year 2, with the largest increase observed in the maternity rate (Domain III: Hypothesis III.3.a). Higher medical-surgical inpatient rates were observed for women, enrollees older than age 35, enrollees with an income 0-35% FPL, black enrollees, and enrollees with one of the four chronic conditions of interest (Domain III: Descriptive Finding). Trends in inpatient utilization from Year 1 to Year 2 differed by chronic

condition status. Among enrollees with one of the four chronic conditions of interest, the adjusted medical-surgical inpatient rate decreased from 13.83 per 1,000 member-months in Year 1 to 11.73 in Year 2. In contrast, among enrollees with no chronic condition, the adjusted medical-surgical inpatient rate increased from 3.14 in Year 1 to 3.80 in Year 2 (Domain III: Hypothesis III.3.a). The rate of discharges related to asthma and diabetes decreased significantly from Year 1 to Year 2. In contrast, heart failure discharge rates increased significantly from Year 1 to Year 2. The rate of discharges related to COPD did not change significantly (Domain III: Hypothesis III.3.a). Enrollees who had regular primary care visits had higher adjusted medical-surgical inpatient rates in Year 2 (Domain III: Hypothesis III.3.b). Among enrollees with one of the four chronic conditions of interest, those who agreed to address at least one behavior change had a lower adjusted Year 2 medical-surgical inpatient rate than their counterparts who did not complete an HRA. This pattern was reversed for enrollees without a chronic condition (Domain III: Hypothesis III.3.c).

Preventive services and health behaviors

Overall, 83.7% of the Domain III study population received at least one preventive service over the two-year study period. Receipt of preventive services was more common among women, enrollees 50-64 years, white enrollees, and enrollees with one of the four chronic conditions of interest (Domain III: Descriptive Finding). The proportion of enrollees who received at least one preventive service decreased from 71.5% in Year 1 to 68.5% in Year 2. However, two preventive services – flu vaccine and preventive dental care – saw an increase from Year 1 to Year 2 (Domain III: Hypothesis III.2.a). Among enrollees who made regular primary care visits, 93.4% received at least one preventive service, compared to only 30.1% of enrollees who did not make primary care visits. This pattern was consistent across all preventive services studied (Domain III: Hypothesis III.2.b). Nearly all enrollees who completed at least one HRA (96.1%) received at least one preventive service, compared to only 79.2% of enrollees who did not complete an HRA. This pattern was consistent across all preventive services studied (Domain III: Hypothesis III.2.c). Enrollees who were eligible for HMP's healthy behavior incentive had higher rates of preventive services compared to enrollees who did not complete an HRA (and thus were not eligible for the incentive) (Domain III: Hypothesis III.2.d, Hypothesis III.2.e).

Among respondents to the 2017 HMV Follow-Up Survey, 92.4% of current enrollees had a claim for at least one preventive service, 50.0% of current enrollees (not restricted by age or gender) had a claim for cancer screening, 59.0% of women received cervical cancer screening, 75.4% of women over age 50 received breast cancer screening, and 45.6% of current enrollees over age 50 had colorectal cancer screening. In multivariate analysis, the number of preventive services received by current enrollees was greater for those who reported having a PCP visit in the past 12 months compared to those who did not, those who completed an HRA compared to those who did not, those who reported discussing the HRA with a provider in the last year compared to those who did not, those who had better knowledge of HMP covered benefits and costs, and those who had a greater number of primary care visits. In multivariate analysis limited to current enrollees, there were no statistically significant associations between the number of preventive services received by current enrollees and their knowledge of fee reductions for completing an HRA or agreeing that MI Health Account statements led them to change health care decisions. Two in three (67.4%) current enrollees had a claim for at least one dental visit (Domain IV: 2017 HMV FLUP Survey: Aim 5).

Among the Domain V/VI study population, those who had a recorded attestation for a completed HRA were much more likely than those who did not have an attestation to have a preventive visit (84% vs. 50%), have a preventive screening (93% vs. 71%), and use a co-pay exempt medication to control a chronic disease (66% vs. 48%) (Domain V/VI: Hypothesis V/VI.4.B).

In an analysis conducted for Domain V/VI, respondents to the 2016 HMV survey who received a healthy behavior reward were significantly more likely to say they were trying to quit smoking and to report they had a flu shot (Domain V/VI: Hypothesis V/VI.4.A).

Among respondents to the 2016 HMV Survey, 37.7% of enrollees reported smoking or using tobacco in the last 30 days, of which 75.2% said they wanted to quit. Of these, 90.7% were working on quitting or cutting back (Domain IV: 2016 HMV Survey: Aim IV.2).

Among respondents to the 2017 HMV Follow-Up Survey, 6.6% of current enrollees reported binge drinking three or more days per week in the 2017 survey. Approximately half (52.6%) of current enrollees who reported any binge drinking in 2016 decreased their alcohol use between 2016 and 2017. Among current enrollees who reported smoking or using tobacco in 2016, 14.4% quit smoking or using tobacco from 2016 to 2017 (Domain IV: 2017 HMV FLUP Survey: Aim 4).

Health Risk Assessment

About one quarter (26.6%) of the Domain III study population completed the HRA process. Among enrollees who completed the HRA, nearly ninety percent selected a healthy behavior to change (Domain III: Descriptive Finding).

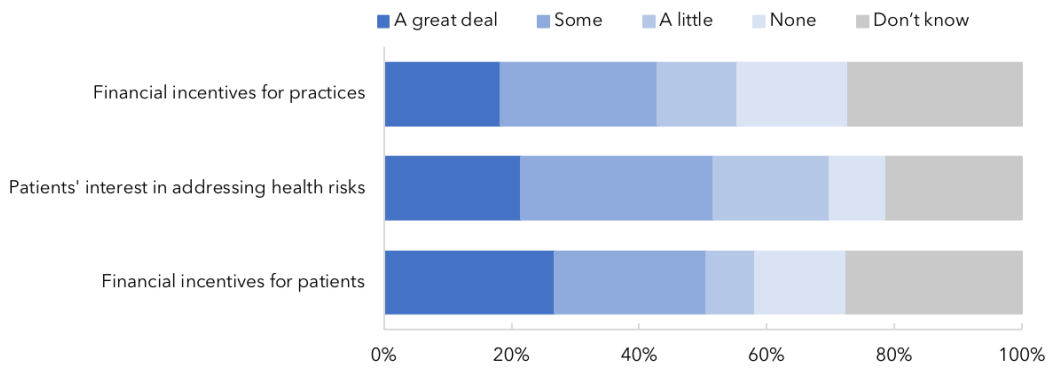
Among respondents to the 2016 HMV Survey, 49.3% self-reported completing an HRA. This is comparable to the proportion of HMP enrollees who have an HRA record in the MDHHS Data Warehouse (which reflects completion of any component), but higher than the proportion who have an HRA attestation (which reflects submission of the completed HRA form and physician attestation). Among those who completed an HRA, 45.9% said they did so because a PCP suggested it, 33.0% did so because they received the form in the mail, 12.6% completed it over the phone at time of enrollment, and only 0.1% said they completed the HRA to save money on copays and contributions. Of those who reported completing an HRA, 80.7% chose to work on a health behavior, 83.7% felt it was valuable for improving their health, and 89.7% felt it was helpful for their PCP to understand their health needs (Domain IV: 2016 HMV Survey: Aim IV.2).

Respondents to the 2017 HMV New Enrollee Survey were asked how they completed the first section of the HRA and most commonly reported that they filled it out themselves (39.6%). Of those who reported completing the first section of the HRA, 48.7% said they discussed the HRA with their doctor or someone at their PCP's office. Among new enrollees who discussed the HRA with their doctor or someone at their PCP's office, 63.9% reported that it taught them something about their health, 87.1% reported that it helped their PCP better understand their health needs, and 87.9% reported that it motivated them to be more responsible for their health (Domain IV: 2017 HMV New Enrollee Survey: Aim 4).

Among respondents to the 2017 HMV Follow-Up Survey, current enrollees were more likely than former enrollees to have a completed HRA with physician attestation recorded in the Data Warehouse (43.9% vs. 28.8%). Among current enrollees, those that had a PCP visit were much more likely than those who did not to have completed an HRA (46.6% vs. 8.2%) (Domain IV: 2017 HMV FLUP Survey: Aim 4).

Among respondents to the PCP Survey, 79% of PCPs completed at least one HRA with a patient; most of those completed >10. PCPs reported completing more HRAs if they were located in Northern regions of Michigan, were paid by capitation or salary compared to fee-for-service, reported receiving a financial incentive for completing HRAs, or were in a smaller practice size (5 or fewer). The majority of PCPs surveyed (71%) were very or somewhat familiar with how to complete an HRA. About two in three (65%) didn't know if they or their practice had received a bonus for completing HRAs. More than half reported that financial incentives for patients (58%) and financial incentives for practices (55%) had at least a little influence on completing HRAs, and 52% said patients' interest in addressing health risks had at least some influence on HRA completion (Figure 6). Most PCPs found HRAs useful for identifying and discussing health risks, persuading patients to address their most important health risks, and documenting behavior change goals (Domain IV: PCP Survey: Aim IV.4).

Figure 6. Factors influencing HRA completion for PCPs



Prevalence of chronic conditions

Among the Domain III study population, nearly one quarter were identified as having one of the four chronic conditions of interest, including asthma (5.0%), cardiovascular disease (4.0%), COPD (8.8%), and diabetes (9.9%) (Domain III: Descriptive Finding).

Among respondents to the 2016 HMV Survey, 69.2% reported having a chronic health condition, with 60.8% reporting at least one physical health condition and 32.1% reporting at least one mental health condition. Three in ten (30.1%) reported that a chronic health condition was newly diagnosed since they enrolled in HMP, and 18.2% reported that their poor physical or mental health kept them from activity for 14 or more days in the last month (Domain IV: 2016 HMV Survey: Aim IV.2).

Among respondents to the 2017 HMV New Enrollee Survey, 66.8% reported having at least one chronic condition; 41.2% reported having two or more (Domain IV: 2017 HMV New Enrollee Survey: Aim 1).

Among respondents to the 2017 HMV Follow-Up Survey, 74.7% of current and former enrollees reported having at least one chronic condition at the time of the 2017 survey. The most commonly reported chronic conditions in 2017 were mood disorder (33.8%), hypertension (31.4%), and arthritis or a related condition (27.6%). Other conditions reported included asthma (16.9%), diabetes (10.3%), or a heart condition or heart disease (9.8%). Current enrollees were more likely than former enrollees to have at least one chronic condition (78.3% vs. 71.7%) and to have two or more chronic conditions (53.6% vs. 46.6%) (Domain IV: 2017 HMV FLUP Survey: Aim 1).

Evaluation Goal 4: Beneficiaries feel that the Healthy Michigan Program has a positive impact on personal health outcomes and financial well-being.

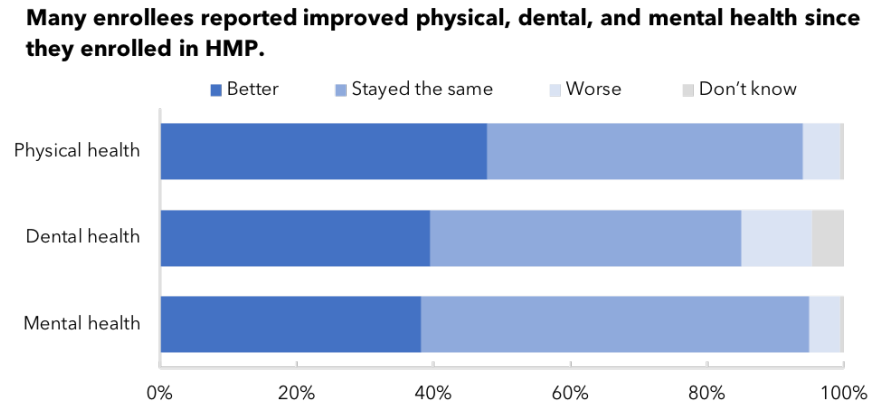
The findings included under this evaluation goal include enrollees' experiences with and knowledge of HMP cost-sharing requirements, healthy behavior rewards, and covered benefits; and PCP attitudes and behaviors related to HMP. Sources of findings related to this evaluation goal include reports from Domains III, IV (HMV surveys and PCP survey), and V/VI.

Health outcomes

Among the subset of enrollees in the Domain III study population who reported their health status in both Year 1 and Year 2, 19.5% reported an improvement in health status. There was no difference in the proportion reporting improved health status between those who completed an HRA and agreed to address at least one behavior change and those who did not complete an HRA (Domain III: Descriptive Finding).

Among respondents to the 2016 HMV Survey, 29.7% reported fair or poor health status, 47.8% felt their physical health had improved, 38.2% said their mental and emotional health had improved, and 39.5% said their dental health had improved (Figure 7) (Domain IV: 2016 HMV Survey: Aim IV.2).

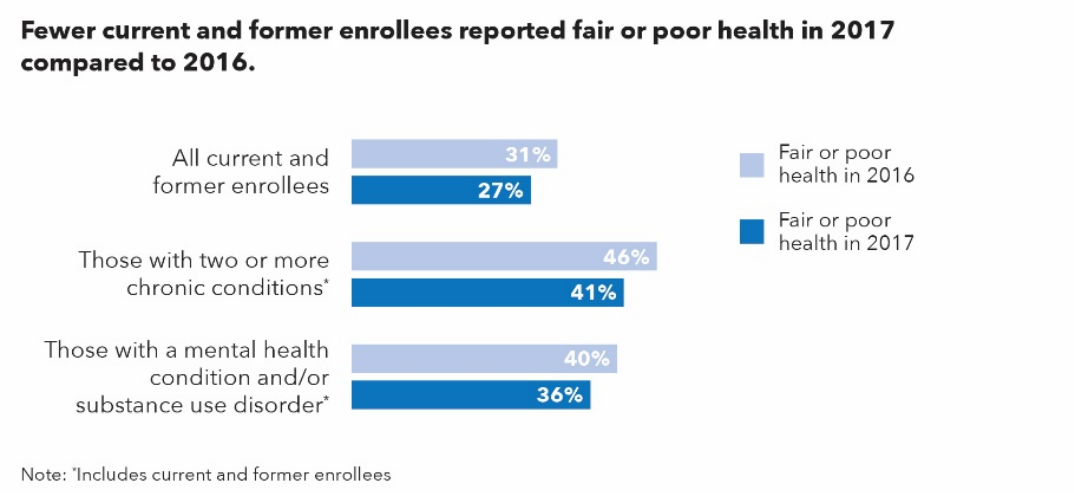
Figure 7.



Among respondents to the 2017 HMV New Enrollee Survey, 30.7% reported fair or poor health (Domain IV: 2017 HMV New Enrollee Survey: Aim 1).

Among respondents to the 2017 HMV Follow-Up Survey, 36.4% of current and former enrollees reported that their health was excellent or very good, 36.6% reported that their health was good, 20.9% reported that their health was fair, and 6.0% reported that their health was poor. Most current and former enrollees reported that in the past year their physical health had improved (29.6%) or stayed the same (56.1%), their mental health had improved (28.4%) or stayed the same (58.6%), and their oral health had improved (21.0%) or stayed the same (60.7%). Former enrollees were more likely than current enrollees to report that their oral health got worse in 2017 (23.0% vs. 16.3%; aOR=1.67). The proportion of current and former enrollees who reported fair/poor health decreased from 2016 to 2017 (from 30.7% to 27.0%; aOR=0.66) (Figure 8). Decreases in the proportion reporting fair/poor health were found in many subgroups of current and former enrollees including those with a chronic condition (from 36.7% to 32.6%), those with two or more chronic conditions (from 45.6% to 40.9%), those with a mental health condition and/or substance use disorder (from 39.9% to 35.6%), and those with a mental health condition (from 40.8% to 36.1%). The largest decreases in reports of fair/poor health from 2016 to 2017 were observed in current and former enrollees who were Hispanic (from 28.3% to 21.5%), non-Hispanic Black (from 31.5% to 26%), from the Detroit Metro area (from 30.7% to 24.9%), and with an income 0-35% FPL (from 37.6% to 32.3%). The mean number of days of poor physical health among current and former enrollees decreased from 2016 to 2017 (Domain IV: 2017 HMV FLUP Survey: Aim 1).

Figure 8.

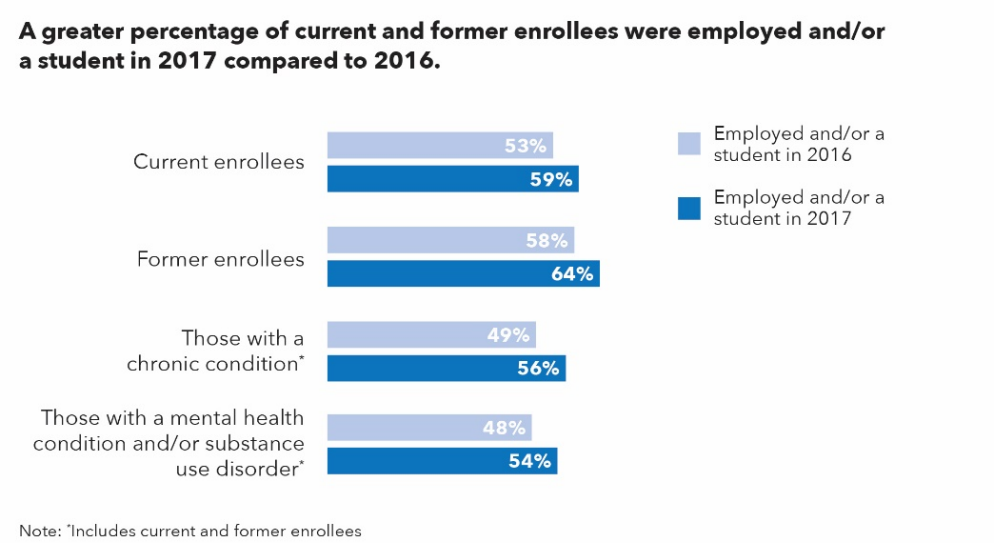


Employment and ability to work

Among respondents to the 2016 HMV Survey, 69.4% of those who were employed reported that getting HMP insurance helped them to do a better job at work, 54.5% of those who were out of work strongly agreed or agreed that HMP made them better able to look for a job, and 36.9% of those who were employed/self-employed and who had changed jobs in the past 12 months strongly agreed or agreed that having HMP insurance helped them get a better job (Domain IV: 2016 HMV Survey: Aim IV.1).

Among respondents to the 2017 HMV Follow-Up Survey, 57.1% of current and former enrollees were employed. Those with a chronic condition were less likely than those without such a condition to be employed (53.1% vs. 70.5%). Those age 51-64 were less likely than younger age groups to be employed, and more likely, if they were working, to be working part-time. Current and former enrollees who were not employed most often reported being unable to work (41.3%) or out of work (33.6%); fewer reported being retired (8.5%), or not looking for work at this time (16.6%). The proportion of current and former enrollees who reported being employed/self-employed and/or a student increased from 2016 to 2017 (from 54.3% to 60.0%) (Figure 9) (Domain IV: 2017 HMV FLUP Survey).

Figure 9.



Among respondents to the 2017 HMV Follow-Up Survey, 64.8% of those who were employed or retired for less than one year and not currently a student reported that getting health insurance through HMP helped them do a better job at work, 27.9% of those who were employed and changed jobs in the last 12 months reported that having health insurance through HMP helped them get a better job, and 46.9% of those who were out of work reported that having health insurance through HMP has made them better able to look for a job (Domain IV: 2017 HMV FLUP Survey).

Roughly two-thirds of respondents to the 2017 HMV NLE Survey (69.4%) agreed that having HMP helped them get healthy enough to work, attend school, or take care of their family (Domain IV: 2017 HMV NLE Survey: Aim IV.1).

Financial well-being

Among respondents to the 2016 HMV Survey, 44.7% said they had problems paying medical bills in the year before HMP. Of those, 67.1% said they or their family was contacted by a collections agency. 85.9% of those who reported problems paying medical bills in the 12 months prior to HMP enrollment said that their problems paying medical bills got better since enrolling in HMP (Domain IV: 2016 HMV Survey: Aim IV.1).

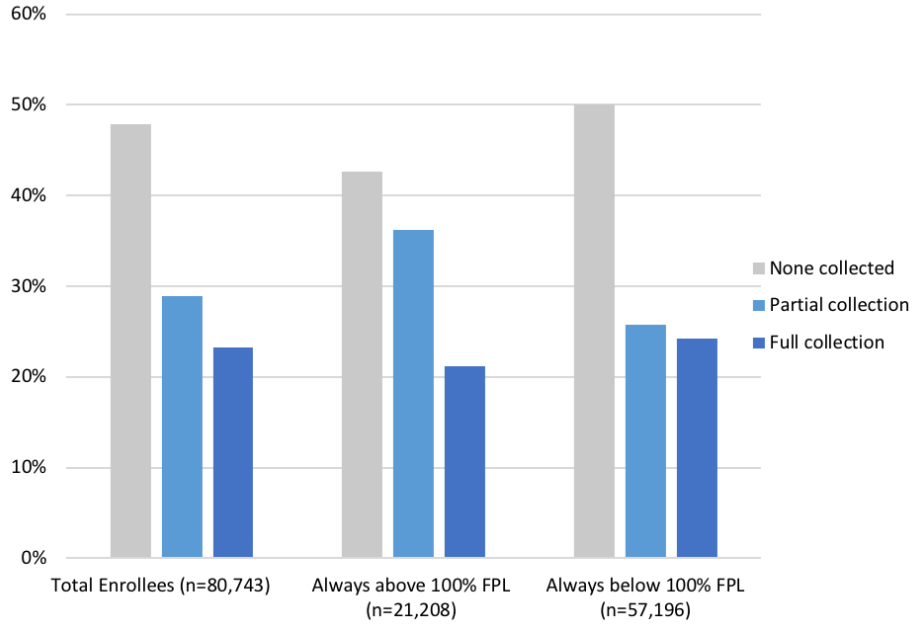
Among respondents to the 2017 HMV New Enrollee Survey, nearly half (44.8%) said they had problems paying medical bills in the 12 months before enrollment. Of those, 72.4% reported being contacted by a collections agency. New enrollees with chronic conditions were more likely than those without to report problems paying medical bills prior to HMP enrollment (51.0% vs. 32.3%) (Domain IV: 2017 HMV New Enrollee Survey: Aim 3).

Cost-sharing

Cost-sharing obligations and collection rates

Among the Domain V/VI study population, slightly more than half (51%) had a cost-sharing obligation (either a co-pay or contribution that generated a non-zero statement). The average quarterly statement for those with an obligation was $16.85 ($11.11 for those below 100% FPL and $30.93 for those at or above 100% FPL). Overall, about one quarter (23%) of all enrollees who owed anything paid in full, about half (48%) of those who owed money made no payments (Figure 10). Although people with incomes above 100% of FPL had higher average obligations, they were more likely to pay some or all of their statement than people with incomes below 100% FPL. After the first potential 6-month period of cost-sharing (months 7-12 of enrollment), rates of payment dropped. For those who paid at least once, an estimated 65% paid in full for months 7-12 and 56% paid in full for months 13-18 (Domain V/VI: Descriptive Finding).

Figure 10. Collection rates among HMP enrollees with cost-sharing obligations, by FPL

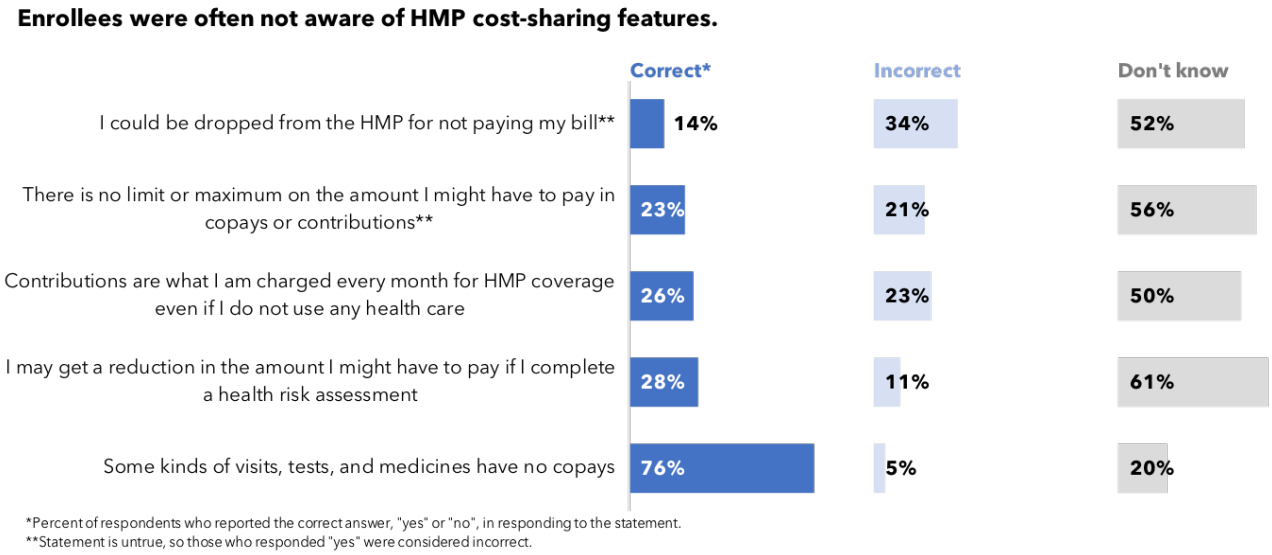


Knowledge and understanding of HMP cost-sharing requirements and healthy behavior rewards

Among respondents to the 2016 HMV Survey, 75.6% of respondents were aware that some kinds of visits, tests, and medicines have no copays, 28.1% were aware that they could get a reduction in the amount they have to pay if they complete an HRA, and just 14.4% of all respondents were aware that they could not be disenrolled from HMP for failure to pay their

bill; 40.0% of respondents with an income of 100-133% FPL were aware that contributions are charged monthly regardless of health care use (Figure 11) (Domain IV: 2016 HMV Survey: Aim IV.1).

Figure 11.



Among respondents to the 2017 HMV New Enrollee Survey, 16.9% said they did not receive any information about how much they would need to pay for HMP, 30.0% thought they could be disenrolled from HMP for failing to pay their bill and 52.3% were unsure, and 68.0% were aware that some kinds of visits, tests, and medicines have no copays. When asked about ways they could reduce the amount they have to pay, most new enrollees (96.4%) did not mention any. When asked specifically about whether they could get a reduction in the amount they have to pay if they complete an HRA, 33.1% said yes, while 56.2% said they did not know (Domain IV: 2017 HMV New Enrollee Survey: Aim 2).

Among PCP Survey respondents, only 36% were very/somewhat familiar with healthy behavior incentives for patients and only 25% were very/somewhat familiar with beneficiary cost-sharing (Domain IV: PCP Survey: Aim IV.4).

Perspectives on cost-sharing

Among respondents to the 2016 HMV Survey, 87.6% strongly agreed or agreed that the amount they pay overall for HMP seems fair and 88.8% strongly agreed or agreed that the amount they pay for HMP is affordable (Domain IV: 2016 HMV Survey: Aim IV.1).

Among respondents to the 2017 HMV New Enrollee Survey, 86.0% strongly agreed or agreed that getting discounts on copays and premiums as a reward for working on improving your health is a good idea (Domain IV: 2017 HMV New Enrollee Survey: Aim 2).

Among respondents to the 2017 HMV Follow-Up Survey, the majority of current enrollees strongly agreed or agreed that the amount they have to pay for HMP overall seems fair (84.1%) and the amount they pay for HMP is affordable (86.7%). The majority of current and former enrollees strongly agreed or agreed that getting discounts on copays and premiums as a reward for working on improving your health is a good idea (91.0%) and that everyone should have to pay something for their health care (53.7%) (Domain IV: 2017 HMV FLUP Survey: Aim 2).

Respondents to the 2017 HMV NLE Survey demonstrated positive attitudes about their costs for HMP participation; about 90% agreed that the amount they paid for HMP was fair and affordable. Respondents varied in their attitudes about HMP cost-sharing features: 87.8% agreed that getting discounts on copays and premiums as a reward for healthy behavior is a good idea. However, only 48.2% agreed with the concept that everyone should have to pay something for their health care (Domain IV: 2017 HMV NLE Survey: Aim IV.1).

MI Health Account statement

Among respondents to the 2016 HMV Survey, 68.2% said they received a MI Health Account statement. Among respondents who reported receiving a MI Health Account statement, 88.3% strongly agreed or agreed they carefully review each statement to see how much they owe. 88.4% strongly agreed or agreed the MI Health Account statement helps them be more aware of the cost of health care (Domain IV: 2016 HMV Survey: Aim IV.1).

Among respondents to the 2017 HMV Follow-Up Survey, 78.4% of current enrollees reported that they received a MI Health Account statement in the past year; those with lower incomes were less likely to report receiving a MI Health Account statement. Among current enrollees who reported receiving a MI Health Account statement in the past year, 84.8% strongly agreed or agreed that they carefully review each statement to see how much they owe, 82.6% strongly agreed or agreed that the statements help them be more aware of the cost of health care, and 31.0% strongly agreed or agreed that the information in the statement led them to change some of their health care decisions (Domain IV: 2017 HMV FLUP Survey: Aim 2).

Checking cost-sharing before seeking care

Among respondents to the 2016 HMV Survey, 71.6% reported being somewhat or very likely to find out how much they might have to pay for a health service before going to get the service (Domain IV: 2016 HMV Survey: Aim IV.1).

Among respondents to the 2017 HMV Follow-Up Survey, 26.9% of current and former enrollees reported checking how much they would have to pay for a doctor's visit, medication, or other health service before they received care in the past 12 months (Domain IV: 2017 HMV FLUP Survey: Aim 5).

Discussing costs with patients

Among respondents to the PCP survey, 22% reported discussing out-of-pocket costs with an HMP patient, and they noted the patient was the most likely one to bring up the topic. PCPs who were white, Hispanic/Latino, non-physician practitioners, and with Medicaid or

uninsured predominant payer mixes were more likely to have cost conversations with patients. PCPs reported that 56% of the time, such a discussion resulted in a change of management plans. PCPs who were younger and in rural practices were more likely to report a change in management due to cost conversations with patients (Domain IV: PCP Survey: Aim IV.4).

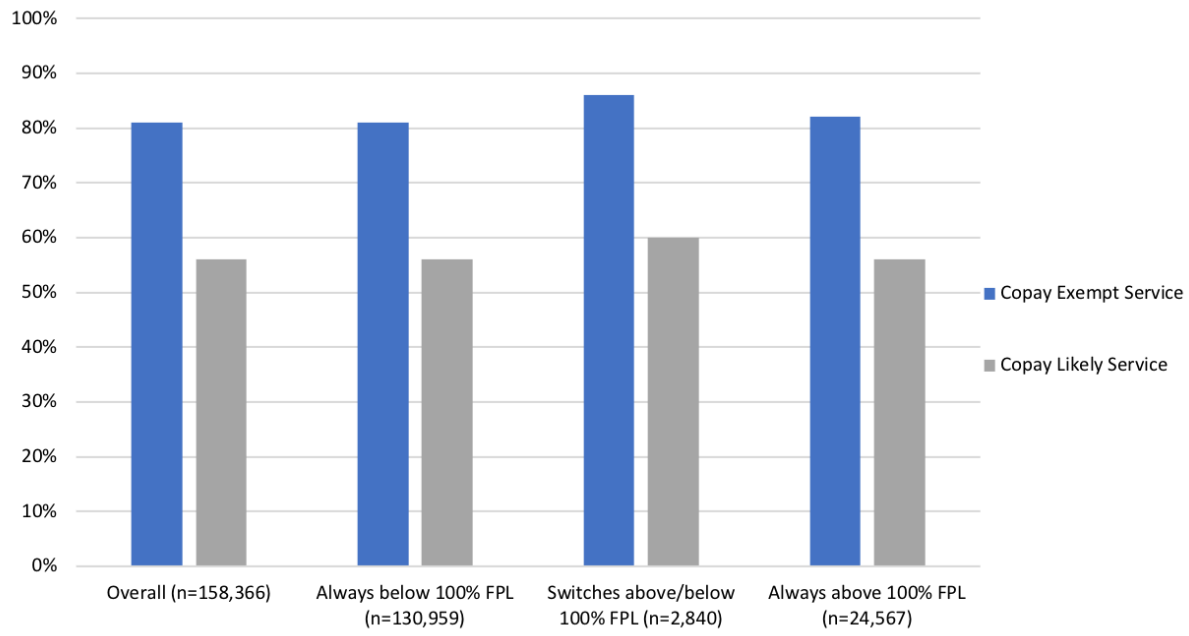
Medical and pharmaceutical spending

Spending here is defined as the total amount spent by both health plans and enrollees. Among the Domain V/VI study population, the average monthly amount spent (April 2014-Sept 2016) was $360 and the median monthly spending was $136. Those with incomes 0-35% FPL spent more per month ($391) than those with incomes 36-99% FPL ($313) or 100+% FPL ($327). Pharmaceutical spending increased for the entire HMP population with 18 months of continuous enrollment. That result is consistent with, and probably driven by, the initiation and maintenance of medications for chronic disease. Medical spending remained flat or declined for those with higher levels of cost-sharing, either from co-payments or monthly contributions. Although we cannot definitively attribute this change to cost-sharing attributes of HMP, these general patterns may indicate that those with monthly contributions may have become more efficient users of the healthcare system over time (Domain V/VI: Hypothesis V/VI.1).

High and low-value service use

We used services exempt from co-payments (vs. services where co-payments are likely) as an indicator of which services the state Medicaid program deems high (vs. low) value. During the Domain V/VI study period, 81% of enrollees received a co-pay exempt preventive service (exemption often based on care for a chronic condition per program rules) (Figure 12); 56% received a service likely to have a co-payment and incurred a co-payment for it (vision exam, chiropractic treatment, new patient visit, office consultation). All income groups had similar rates of co-pay exempt and co-pay likely service use. Co-pay exempt preventive service use and co-pay likely service use declined over time (Domain V/VI: Hypothesis V/VI.2).

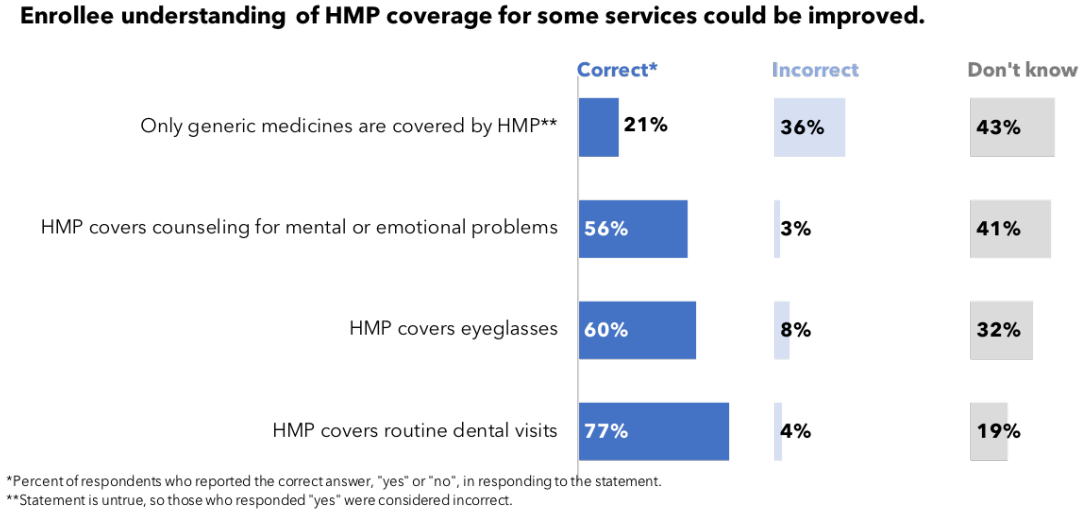
Figure 12. Percent of population ever receiving each type of service during the study period



Knowledge and understanding of HMP covered benefits

Among respondents to the 2016 HMV Survey, the majority knew that HMP covers routine dental visits (77.2%), eyeglasses (60.4%), and counseling for mental or emotional problems (56.0%). Just over one-fifth (21.2%) knew that HMP covers both brand name and generic medications (Figure 13) (Domain IV: 2016 HMV Survey: Aim IV.1).

Figure 13.



Among respondents to the 2017 HMV Follow-Up Survey, the majority of current enrollees knew that HMP covers prescription medications (95.1%), dental care (81.6%), eyeglasses

(67.9%), and counseling for mental or emotional problems (58.8%). Nearly half knew that HMP covers birth control or family planning (48.1%). Less than half knew that HMP covers substance use treatment (41.4%) and treatment to stop smoking (39.7%). In 2017 compared to 2016, current enrollees were more likely to know that dental care (81.6% vs. 77.0%) and eyeglasses (67.9% vs. 61.5%) were covered by HMP (Domain IV: 2017 HMV FLUP Survey: Aim 2).

Among respondents to the 2017 HMV New Enrollee Survey, the majority knew that HMP covers prescription medications (85.9%), dental care (63.8%), and counseling for mental or emotional problems (53.6%). Nearly half knew that HMP covers birth control or family planning (48.9%) and eyeglasses (48.5%). Less than half knew that HMP covers substance use treatment (42.4%) and treatment to stop smoking (34.7%). New enrollees were less knowledgeable about HMP covered benefits and costs than enrollees surveyed in 2016 who had been enrolled for at least one year (Domain IV: 2017 HMV New Enrollee Survey: Aim 2).

Challenges using HMP coverage

Among respondents to the 2016 HMV Survey, 15.5% respondents reported that they had questions or problems using their HMP coverage. Among those who did, about half (47.7%) reported getting help or advice, and most (74.2%) of those said that they got an answer or solution (Domain IV: 2016 HMV Survey: Aim IV.1).

Among respondents to the 2017 HMV New Enrollee Survey, 15.9% reported that they had questions or difficulties using their HMP coverage (Domain IV: 2017 HMV New Enrollee Survey: Aim 2).

Perspectives of enrollees on HMP

Perspectives on HMP coverage

Among respondents to the 2016 HMV Survey, 83.3% strongly agreed or agreed that without HMP they would not be able to go to a doctor (Domain IV: 2016 HMV Survey: Aim IV.1).

Among respondents to the 2017 HMV Follow-Up Survey, 97.3% of current and former enrollees strongly agreed or agreed that it is very important for them personally to have health insurance. Most current enrollees strongly agreed or agreed that having HMP has taken a lot of stress off them (91.4%) and that without HMP they would not be able to go to the doctor (88.5%) or the dentist (83.6%); those with a chronic condition were more likely than those without to strongly agree or agree with these statements. Current enrollees were more likely in 2017 than in 2016 to strongly agree or agree that having HMP has taken away a lot of stress (91.4% vs. 87.9%) and that without HMP they would not be able to go to the doctor (88.4% vs. 84.3%) (Domain IV: 2017 HMV FLUP Survey: Aim 2).

Respondents to the 2017 HMV NLE Survey described HMP as playing a vital role in bridging their health insurance coverage during vulnerable periods: 89.5% agreed that HMP gave them coverage when they couldn't get insurance through an employer, and 82.9% agreed that HMP helped them stay insured between jobs or between school and a job (Domain IV: 2017 HMV NLE Survey: Aim IV.1).

Perspectives on care seeking

Among respondents to the 2017 HMV Follow-Up Survey, 83.8% of current enrollees strongly agreed or agreed that their preference is to go straight to a doctor and ask his or her opinion if they have a medical problem (Domain IV: 2017 HMV FLUP Survey: Aim 5).

Respondents to the 2017 HMV NLE Survey demonstrated high levels of agreement with HMP's emphasis on primary care: 9 in 10 agreed that people with HMP should always have a PCP, and that HMP enrollees should go to their PCP first for routine care (Domain IV: 2017 HMV NLE Survey: Aim IV.1).

PCP attitudes and behaviors

Acceptance of Medicaid and HMP

Among PCP Survey respondents, 78% reported accepting new Medicaid/HMP patients. PCPs were more likely to do so if they were female, racial minorities or non-physician PCPs, internal medicine specialty, paid by salary, had Medicaid as their predominant payer, previously provided care to underserved patients, and had a stronger commitment to caring for underserved patients. Nearly three in four (73%) felt a responsibility to care for patients regardless of their ability to pay, and 72% agreed all providers should care for Medicaid/HMP patients (Domain IV: PCP Survey: Aim IV.4).

Knowledge of patient insurance

Among PCP Survey respondents, 53% reported knowing a patient's insurance at the beginning of an appointment, 91% reported that it is easy to find out a patient's insurance status, and 35% reported intentionally ignoring a patient's insurance status (Domain IV: PCP Survey: Aim IV.4).

PCP perceptions of HMP impact on their patients

Respondents to the PCP Survey reported improved detection and management of chronic conditions such as diabetes and hypertension in patients who gained coverage due to Medicaid expansion, and better adherence to medical regimens. PCPs also reported that HMP had a positive impact on enrollees' access to care, health behaviors, ability to work or attend school, emotional wellbeing, and ability to live independently (Domain IV: PCP Survey: Aim IV.4).

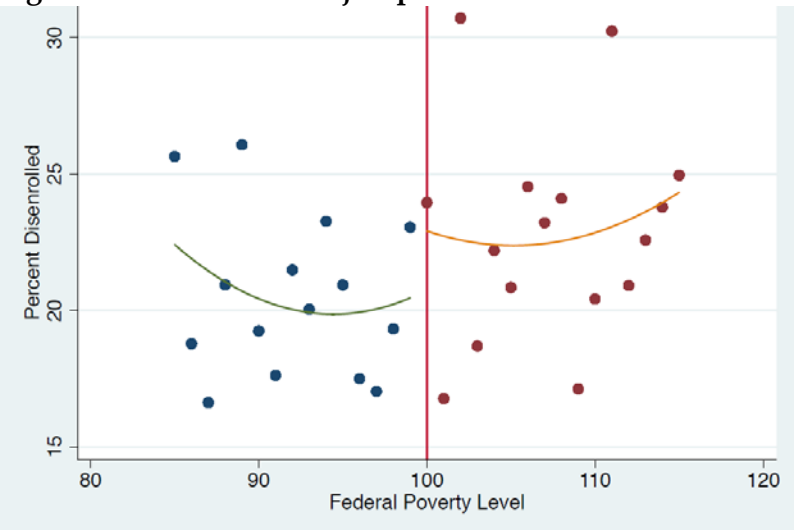
Evaluation Goal 5: Examine the experiences of former HMP enrollees and individuals eligible for, but unenrolled in, HMP.

The findings related to this evaluation goal are from Domain IV reports (HMV surveys and interviews with those eligible but unenrolled).

Predictors of disenrollment from HMP

Among the Domain V/VI study population, people with co-pay exempt chronic conditions were less likely to disenroll than those without such conditions. Among those with co-payments, those with the highest co-payments were less likely to disenroll. Enrollees just above 100% FPL had a higher rate of disenrollment than those just below it (Figure 14), which may have been related to monthly contributions. However, those with evidence of higher medical needs did not have higher disenrollment above 100% FPL, suggesting these enrollees value their HMP coverage regardless of cost sharing obligations (Domain V/VI: Hypothesis V/VI.3).

Figure 14. Discontinuous jump in disenrollment at 100% FPL

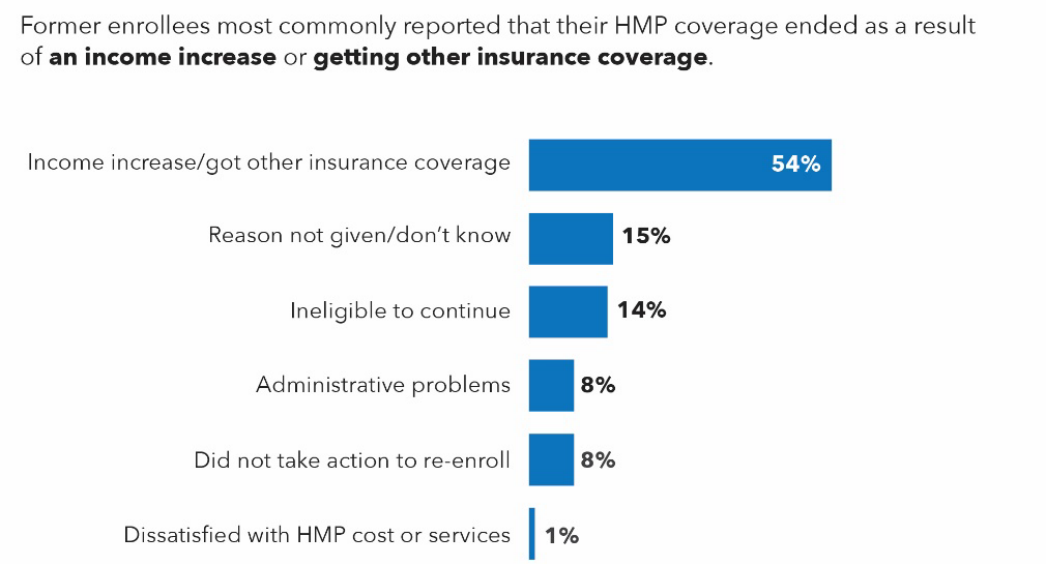


In multivariate analysis among respondents to the 2017 HMV Follow-Up Survey, those with an income of 36-99% FPL (aOR=1.79) and those with an income of 100-133% FPL (aOR=2.07) were more likely than those with an income of 0-35% FPL to disenroll from HMP. There was no difference between those no longer enrolled and those still enrolled in HMP in their views in the 2016 survey of the affordability of HMP, the fairness of HMP costs, or the importance of health insurance (Domain IV: 2017 HMV FLUP Survey: Aim 6).

Reasons for disenrollment from HMP

Among respondents to the 2017 HMV Follow-Up Survey who were former enrollees, the most common reason for disenrollment was an income increase or getting other coverage (53.7%); 13.8% said they were [otherwise] ineligible to continue. Fewer former enrollees reported administrative problems (8.6%) or not taking action to re-enroll (7.7%) (Figure 15) (Domain IV: 2017 HMV FLUP Survey: Aim 6).

Figure 15.



Among respondents to the 2017 HMV NLE Survey, 56.4% reported ending their HMP enrollment for reasons related to an income increase and/or gaining other health insurance coverage. This reflects 28.5% who reported both an income increase and other coverage, 22.1% who reported an income increase only, and 5.8% who noted other insurance coverage only. Few respondents (2.1%) ended their HMP enrollment because they were dissatisfied with HMP cost or services. Overall, 13.8% of respondents reported their HMP enrollment ended due to administrative problems with maintaining enrollment, such as difficulty gathering the required documentation. For 7.5% of respondents, ineligibility due to change in residency (e.g., moving out of state) or household composition (e.g., divorce, child leaving home)—not due to an income increase—was the reported reason for ending HMP enrollment. Roughly 1 in 7 respondents (15.4%) acknowledged that their HMP ended because they did not complete the necessary action to re-enroll (Domain IV: 2017 HMV NLE Survey: Aim IV.1).

Experiences of former enrollees

Knowledge of post-HMP insurance options

Respondents to the 2017 HMV NLE Survey demonstrated low knowledge about federal policies designed to assist with insurance coverage; 51.8% said they know *nothing at all* about subsidies for plans available on the federal health insurance marketplace. Only 28.7% had looked for information in the individual marketplace, with few indicating that they found out whether they would qualify for a subsidy. Among respondents with no health insurance at the time of the survey, 70.4% thought they would gain coverage in the next 6 months; however, twice as many expected to get Medicaid than employer-sponsored coverage (Domain IV: 2017 HMV NLE Survey: Aim IV.1).

Health insurance status since HMP coverage ended

Among respondents to the 2017 HMV Follow-Up Survey, 29.9% of former enrollees reported being uninsured, 26.6% reported Medicaid insurance, 21.5% reported private, employment-based insurance, 11.4% reported Medicare, VA or CHAMPUS insurance, and 4.0% reported private insurance purchased by themselves or someone else at the time of the 2017 survey (Domain IV: 2017 HMV FLUP Survey: Aim 6).

Among respondents to the 2017 HMV NLE Survey, 34.1% of respondents had employer-sponsored coverage, while 10.8% had an individual plan and 7.0% had government-sponsored coverage (e.g., Medicare, VA) at the time of survey completion. Nearly half (48.1%) reported having no insurance. For their entire post-HMP time period, 39.6% of respondents had some employer-sponsored coverage; another 12.5% had purchased an individual plan for some months and 7.4% had government-sponsored coverage for some months. Two in five respondents (40.5%) reported having no insurance at any time post-HMP. Only 30.8% of respondents transitioned from HMP to other insurance with no gap in coverage and maintained coverage until the time of the survey. Among those with gaps in coverage, common reasons related to navigating employer-sponsored coverage, cost, and changes in employment status (Domain IV: 2017 HMV NLE Survey: Aim IV.1).

We examined characteristics associated with health insurance coverage after HMP among respondents to the 2017 HMV NLE Survey. Among respondents who ended their HMP enrollment because their income had increased and/or they expected to obtain other health insurance coverage, 52.0% had employer-sponsored coverage and 14.1% had an individual health insurance plan at the time of the survey; however, 28.0% had no insurance. Respondents age 51-64 years were less likely than younger respondents to have employer-sponsored health insurance at the time of the survey. College graduates had over twice the rate of employer-sponsored coverage at the time of the survey as respondents with a high school education or less (55.1% vs. 24.6%). Two in five (39.9%) respondents who were employed at the time of the survey had employer-sponsored insurance, compared to only 10.5% of those who were not employed. Nearly half (45.4%) of respondents who were employed at the time of the survey had no insurance. Married respondents were more likely than not married respondents to have employer-sponsored coverage (44.0% vs. 30.4%). Over half of not married respondents (52.7%) had no insurance. Respondents who reported at least one chronic disease were nearly 3 times as likely to have government-sponsored insurance, compared to those with no chronic condition (9.8% vs. 3.7%). Respondents who reported fair or poor health status were more likely to have government-sponsored insurance (15.7% vs. 5.1%) or no insurance (56.6% vs. 45.8%), and less likely to have employer-sponsored insurance (21.6% vs. 37.1%), than their counterparts with excellent, very good or good health status (Domain IV: 2017 HMV NLE Survey: Aim IV.1).

In an analysis conducted under Domain V/VI, among a subset of respondents to the 2017 HMV NLE Survey, those with cost-sharing obligations and those who paid their obligations were more likely than those without obligations to gain insurance after disenrolling from HMP, demonstrating that disenrollment does not always lead to uninsurance (Domain V/VI: Hypothesis V/VI.3).

Cost of health care/insurance since HMP coverage ended

Among respondents to the 2017 HMV NLE Survey, over half of respondents reported increased

costs for health care after their HMP ended; 40.6% reported their current cost of health care is a lot more and 16.1% a little more than when they were covered by HMP (Domain IV: 2017 HMV NLE Survey: Aim IV.1).

Among respondents to the 2017 HMV Follow-Up Survey, 47.0% of former enrollees reported that the amount they currently pay for their health insurance in a typical month is more than what they were paying with their HMP coverage, 39.4% said it is about the same, and 7.7% said it is less. Those with an income of 100-133% FPL were more likely to report that the amount they currently pay is a lot more than what they were paying with HMP (Domain IV: 2017 HMV FLUP Survey: Aim 6).

Problems paying medical bills since HMP coverage ended

Among respondents to the 2017 HMV NLE Survey, 33.7% reported problems paying medical bills since their HMP coverage ended. Challenges with paying medical bills occurred across all insurance groups, ranging from 26.4% for respondents with employer-sponsored coverage to 39.7% among those with no health insurance (Domain IV: 2017 HMV NLE Survey: Aim IV.1).

Among respondents to the 2017 HMV Follow-Up Survey, 22.0% of former enrollees reported having problems paying medical bills since their HMP coverage ended (Domain IV: 2017 HMV FLUP Survey: Aim 6).

Access to care since HMP coverage ended

Across different types of services, the proportion of respondents to the 2017 HMV NLE Survey who rated their access to care as better since their HMP coverage ended ranged from 5.7% (mental health) to 16.2% (dental). The proportion who rated their access as worse after HMP ended ranged from 12.9% (mental health) to 32.1% (prescription medication) (Domain IV: 2017 HMV NLE Survey: Aim IV.3).

Among respondents to the 2017 HMV Follow-Up Survey, 49.0% of former enrollees strongly agreed or agreed that they worry more about something bad happening to their health since their HMP coverage ended (Domain IV: 2017 HMV FLUP Survey: Aim 6).

Forgone care since HMP coverage ended

Among respondents to the 2017 HMV NLE Survey, one in five (21.3%) said that since their HMP enrollment ended, there was a time when they did not get the health care they needed (Domain IV: 2017 HMV NLE Survey: Aim IV.3).

Among respondents to the 2017 HMV Follow-Up Survey, 17.1% of former enrollees reported not getting the health care they needed since their HMP coverage ended. Former enrollees were more likely than current enrollees to report forgone health care (in the last 12 months for current enrollees or since HMP coverage ended for former enrollees) (17.1% vs. 7.8%). Among former enrollees who reported not getting the health care they needed: the most commonly reported types of forgone health care were primary care (46.2%), prescription medications (25.0%), and specialty care (16.2%); the most commonly reported reasons for not getting the

health care they needed, regardless of the type of care, were no insurance coverage (45.5%) and cost (36.0%). Former enrollees were more likely than current enrollees to report forgone dental care (in the last 12 months for current enrollees or since HMP coverage ended for former enrollees) (aOR=1.58) (Domain IV: 2017 HMV FLUP Survey: Aim 3).

Regular source of care since HMP coverage ended

Among respondents to the 2017 HMV NLE Survey, over 80% of respondents with insurance said that since their HMP enrollment ended, they had a regular place for getting health care, compared to only 58% of respondents with no insurance. Most respondents described their post-HMP regular place for care as a primary care setting. However, 17.8% said their regular place for care is an urgent care or walk-in clinic and 13.9% cited the ER as their regular place for care. One in three respondents (37.4%) agreed that sometimes they go to the ER because they do not have another place to get care (Domain IV: 2017 HMV NLE Survey: Aim IV.3).

Among respondents to the 2017 HMV Follow-Up Survey, 76.5% of former enrollees reported having a place they would usually go when they need a checkup, feel sick, or want advice about their health since their HMP coverage ended. Among those former enrollees, 62.5% reported a doctor's office, 21.2% a clinic, 7.9% an urgent care/walk-in clinic, and 5.7% reported the ER as their regular source of care. About one in five (22.4%) former enrollees strongly agreed or agreed that sometimes they go to the ER because they know they cannot be turned away and 33.6% of former enrollees strongly agreed or agreed that sometimes they go to the ER because they do not have another place to get care (Domain IV: 2017 HMV FLUP Survey: Aim 5).

Experiences of those eligible but unenrolled in HMP

Intersection between employment and insurance status

Most 2017 EBU interviewees were either employed or self-employed, although some were employed in part-time or seasonal jobs, and many had been in their jobs less than a year. Interviewees often reported becoming uninsured because they lost, changed or left a job. Among employed interviewees, their employers either did not offer health insurance or they were not eligible because they were part-time or had not been in the position long enough. A few reported an inability to work due to health problems (Domain IV: 2017 EBU Interviews: Descriptive Finding).
Most 2018 EBU interviewees were employed at least part-time but their jobs did not offer employer-based insurance or the interviewee had insufficient duration of employment or weekly hours of work to be covered. Several interviewees described losing insurance coverage due to their own or a family member's job loss or change (Domain IV: 2018 EBU Interviews: Aim A).

Non-employment-related reasons for being uninsured

Among 2017 EBU interviewees, the most common non-employment-related reasons for being uninsured included dropping their Marketplace plan or private coverage due to cost or exploring health insurance options but not applying due to cost (Domain IV: 2017 EBU Interviews: Descriptive Finding).

Among 2018 EBU interviewees, most said they were uninsured because insurance was unaffordable, based on their experiences with employer-based and other private insurance with high premiums and deductibles. Lack of knowledge and misperceptions about HMP eligibility and costs contributed to affordability-related reasons. Some interviewees said that the cost of insurance exceeded what they spent out-of-pocket for health care, so they chose to remain uninsured (Domain IV: 2018 EBU Interviews: Aim A).

Exploring health insurance coverage

About half of 2018 EBU interviewees had explored insurance coverage, usually online. Most described finding information about private or Marketplace insurance but no one described knowing about subsidies for Marketplace plans. Most interviewees found that the insurance options they explored were unaffordable or believed they were ineligible. All of those who said they did not explore insurance options in the past 12 months were people who described themselves as in very good to excellent health. Some who did not explore had misperceptions about Medicaid or HMP (Domain IV: 2018 EBU Interviews: Aim A).

Knowledge and understanding of HMP covered benefits and costs

Among 2017 EBU interviewees, only half reported that they had heard about HMP or that it sounded familiar to them. Even those interviewees who said they had heard of HMP knew very little, if anything, about eligibility, covered benefits or costs, including co-pays and contributions. Some misunderstood HMP features as those of other Medicaid programs or other types of insurance. The most common reasons interviewees gave for not enrolling in HMP or Medicaid was that they thought they were not eligible, did not want to be on a government program/prefer a sense of self-sufficiency, perceived themselves to be healthy or not in need of medical care, or had negative views about the application or paperwork processes. Some noted that they did not enroll because they did not know about the program (Domain IV: 2017 EBU Interviews: Aim A).

Among 2018 EBU interviewees, most had not heard of HMP. Most interviewees who thought they had heard about HMP, including some with prior HMP coverage, had misperceptions about program eligibility, coverage, costs and affordability. Some conflated HMP with traditional Medicaid eligibility criteria, including income levels and asset tests. Some based their perceptions of affordability of HMP on premiums and deductibles for Marketplace or other private insurance plans (Domain IV: 2018 EBU Interviews: Aim A).

Interest in HMP

Many 2017 EBU interviewees expressed interest in signing up for, or learning more about HMP. A few interviewees reported that they were not interested in signing up for HMP at the time of the interview. Some attributed their lack of interest to anticipated changes in their personal circumstances, including getting employer-sponsored insurance or plans to move out of Michigan (Domain IV: 2017 EBU Interviews: Aim A).

After hearing a brief description of HMP, most 2018 EBU interviewees were interested in learning more about or applying for HMP. Of those who were not interested, most thought they would be ineligible due to expected income increases or misperceptions about HMP eligibility criteria (Domain IV: 2018 EBU Interviews: Aim A).

Perceptions of being uninsured: concern about current or potential unmet care needs and financial consequences

Among 2017 EBU interviewees, most were not satisfied with being uninsured and reported they would like to have health insurance. They expressed concerns about unmet health care needs, the costs of care and prescription medications they needed or received, or missing regular preventive care. Many interviewees perceived health insurance to be too expensive, and therefore out-of-reach, based on perceptions or experiences with commercial health plans. Because of these perceptions, some thought being uninsured offered them more financial stability. Others felt their finances were negatively impacted by being uninsured because they were responsible for the full cost of the care they received, and some had medical debt (Domain IV: 2017 EBU Interviews: Aim B).

Among 2018 EBU interviewees, most expressed concern that not having health insurance could result in unmet care needs and financial challenges. Many interviewees were concerned about a major or catastrophic health issue happening in the future that could result in bills they could not afford to pay and put them in substantial debt. Many used strong and emotional language to convey their worry and concern about lack of coverage such as "I'm very upset" and "It's a burden". Many interviewees expressed discomfort with not being able to anticipate when they may need care. Some said that even in an emergency, they would not seek care. Some were concerned about not being able to access routine care that is recommended to monitor health. A few interviewees said they were not concerned about being uninsured as they did not see insurance as a necessity. Most interviewees said they did not have outstanding medical bills. Those interviewees with outstanding medical bills said the bills, which ranged from $1,000 to $30,000, resulted from ER visits or dental care. The financial impact of these medical bills included debt, credit problems, and not being able to pay other bills (Domain IV: 2018 EBU Interviews: Aim B).

Health care needs and utilization and associated costs

Among 2017 EBU interviewees, more than half reported that they had one or more health problems. Interviewees' health problems had an impact on their perception of their need for care. Almost all interviewees perceived a need for dental care and the majority perceived a need for preventive services, vision care, specialty care and prescriptions. Few reported a need for care of mental health conditions or substance use disorders or for medical equipment and supplies. Just over half of interviewees reported having a regular source of care that was a doctor's office or clinic. Both interviewees with and without a regular source of care went without needed care at least some of the time. Many interviewees were quite aware of the costs associated with co-pays, prescription and medical charges, and health insurance premiums. Many interviewees used a variety of strategies to reduce costs. They reported using store and online coupons and discounts and visiting clinics offering free or sliding-fee services. Some interviewees reported using lifestyle strategies to limit or avoid use of the health care system,

including taking steps to avoid or minimize injury, adopting healthy diets and exercising, maintaining good oral hygiene, and using alternative medicines and remedies (Domain IV: 2017 EBU Interviews: Aim C).

Among 2018 EBU interviewees, some had received a few preventive care services. Some reported receiving dental care. About half of interviewees discussed using free or low cost clinics, dental schools or discount coupons to obtain needed care. Most paid for the care they received, using cash or credit cards. Most interviewees had not used the ER in the past 12 months. Among the four who reported they had, three had gone at least four times in the past year. Those who used the ER went for injuries or health problems that they described as severe or painful. A few interviewees described receiving urgent care for emergency issues and injuries. A few said they used urgent care settings when ill rather than primary care settings. The four interviewees who described visits to the ER reported that hospital staff had not discussed their eligibility for HMP or options for enrollment with them (one reported discussing Medicaid) (Domain IV: 2018 EBU Interviews: Aim C).

Forgone care

Among 2017 EBU interviewees, only a few had not received any type of care in the past 12 months. Most reported forgoing at least one type of care due to being uninsured or concerns about the cost of care. More than half of interviewees with health problems reported that they were not getting treatment they needed, including preventive and specialty care and prescriptions needed to improve or manage their conditions. Nearly all said this was due to cost and/or not having insurance (Domain IV: 2017 EBU Interviews: Aim C).

Among 2018 EBU interviewees, most had forgone one or more types of health care because they could not afford to pay out-of-pocket or were afraid of incurring medical debt. Sometimes they looked into getting care and found that care was out of their price range; sometimes they assumed that they would not be able to pay. Forgone dental care and preventive care were mentioned most frequently. Interviewees described consequences of forgone care including pain, deteriorating health, or not getting preventive care that would help detect or monitor health conditions. For most interviewees, lack of insurance led them to not seek care due to cost, unless the condition was serious. They often decided not to seek preventive care or care for mild to moderate routine illnesses. Most avoided specialty and mental health services. Only a few would seek needed care despite being uninsured, usually at an urgent care or walk-in clinic. Most reported they would seek emergency care if absolutely needed. A few said they would not seek emergency care or had actually avoided emergency care for serious situations (Domain IV: 2018 EBU Interviews: Aim C).

F. Overall Conclusions by Evaluation Goals

As can be ascertained from above, findings were generally consistent across domains. We summarize below the key findings related to the five evaluation goals listed in Section B and describe opportunities for improvement.

Evaluation Goal 1: Increased availability of health insurance reduces the costs of uncompensated care borne by hospitals.

Summary of Findings and Opportunities for Improvement

HMP was associated with substantially reduced costs of uncompensated care provided by Michigan hospitals. This reduction was comparable to other states that expanded Medicaid and contrasted with the increase in uncompensated care costs seen in states that did not expand Medicaid over the same time period.

Insurance coverage gains through HMP translated to a significant decrease in uncompensated care provided by Michigan hospitals. According to Medicare cost reports, in Fiscal Year 2013, the average Michigan hospital provided $7.8 million of uncompensated care. By 2016, this figure fell to $3.8 million, or about half the 2013 amount. Nearly 90% of Michigan hospitals experienced a decrease in uncompensated care over this period. The change was greatest for hospitals that had been providing the highest volume of uncompensated care prior to HMP.

Comparing Michigan to other states in terms of hospital uncompensated care over the first four years of HMP provided a useful framework for evaluation. In 2013, uncompensated care represented 3.8% of total expenditures in Michigan hospitals, and by 2017 this proportion had fallen to 1.6%. In states that did not expand their Medicaid programs, hospital uncompensated care actually increased. This contrast provides strong evidence that the decline observed in Michigan can be attributed to HMP. The reduction in uncompensated care observed in Michigan was comparable to the reductions observed in other Medicaid expansion states. This result suggests that the reductions in uncompensated care were caused by the increase in Medicaid coverage and were not affected by the distinctive features of the HMP demonstration.

Opportunities for further reductions in uncompensated care are substantially limited by two major factors. First, many low-income adults in Michigan and other expansion states who remain uninsured are ineligible for Medicaid coverage under the ACA because they are undocumented immigrants or have been legal residents of the United States for fewer than five years. When hospitalized, these adults are often unable to pay their full hospital bills and thus require uncompensated care. Second, over 40% of non-elderly adults with employer-sponsored insurance nationally are in high-deductible plans. If they are unable to pay their deductibles, these insured adults also generate uncompensated care when hospitalized.

Evaluation Goal 2: Availability of affordable health insurance results in a reduction in the number of uninsured/underinsured individuals who reside in Michigan.

Summary of Findings and Opportunities for Improvement

According to data from the U.S. Census Bureau's American Community Survey, the percentage of non-elderly Michigan adults who were uninsured decreased from 16% to 7% between 2013 and 2017. The decline was much more pronounced among those with family incomes below 138% of the FPL. For this group, the proportion that was uninsured fell from 31% to 13%.

A comparison of trends in Michigan to those in states that did not implement the ACA Medicaid expansion indicates that much of this increase in coverage can be attributed to HMP. Based on this comparison, we conclude that by 2017 HMP increased Medicaid coverage among all non-elderly adults in Michigan by 5% and reduced the percent uninsured by 1%. Among

non-elderly adults with family incomes below 138% of the FPL, HMP increased Medicaid coverage by 12 percentage points and reduced uninsurance by 7 percentage points. These estimated effects are comparable to those in other states that expanded their Medicaid programs under the ACA.

HMV survey results confirm that many HMP enrollees were uninsured before getting HMP coverage. Over half of respondents to the 2016 HMV Survey reported they were uninsured for all of the 12 months prior to enrolling in HMP. Among those reporting prior coverage, about half said that it had been through Medicaid or another state program.

There may be some opportunities to increase enrollment of uninsured Michigan residents further. As stated as an opportunity for improvement under Evaluation Goal 5 below, efforts to conduct outreach and educate the public about HMP continue to be important to reduce the number of uninsured or underinsured people in Michigan as some people who are eligible remain unenrolled and uninsured.

Evaluation Goal 3: Availability of affordable health insurance, which provides coverage for preventive and health and wellness activities, will increase healthy behaviors and improve health outcomes.

Summary of Findings and Opportunities for Improvement

Access to care improved with enrollment in HMP coverage. Enrollees were more likely to have a regular source of care with HMP and fewer reported that it was an ER. A large majority of HMP enrollees used primary care and preventive services. Only one-quarter of HMP enrollees fully completed the HRA process, suggesting that HRAs may not be a key motivator for use of primary care and preventive services, but HRA completion was associated with higher rates of preventive service use.

There may be some opportunities to continue to educate enrollees about HMP covered benefits, costs of care, and how to access different types of health care services to reduce access barriers and forgone care. Various options to increase rates of HRA completion and submission should be considered, including educating both providers and enrollees about the incentives.

Access to care

HMP enrollees experienced improved access to care after enrolling in HMP compared to before they had HMP coverage. Respondents to the 2016 HMV Survey reported greater ability to get primary care (57.8%), specialty care (44.4%), dental care (46.1%), and prescription medications (59.3%). Some reported improved access to mental health care (27.5%) and cancer screening (25.7%). In some cases, lack of awareness of HMP coverage for certain types of services, such as dental care, influenced enrollees' perceptions about access to care.

PCPs reported in the first year after implementation of HMP that access to some services (e.g., specialty care, mental health care) remained challenging.

Forgone care

One-third of respondents to the 2016 HMV Survey reported not getting care they needed in the 12 months before HMP enrollment; and three-quarters of them attributed this forgone care to concern about the cost. HMP enrollees reported less forgone care after enrolling in HMP compared to before they had HMP coverage. When asked about their experience in the last 12 months while enrolled in HMP, only one-sixth reported forgone care, and only one-quarter of them attributed it to concern about the cost. Enrollees with a chronic condition and enrollees with a mental health condition and/or substance use disorder were more likely than those without those conditions to report forgone health care and dental care while enrolled in HMP.

Regular source of care

The emphasis on primary care within HMP appears to have shifted much care-seeking from acute care settings to primary care settings. A greater number of enrollees reported having a usual place they would go for health care after enrolling in HMP compared to the 12 months before enrollment (92.2% vs. 73.8%), and fewer reported the ER as their regular source of care (1.7% vs. 16.2%). The vast majority of enrollees reported having a regular source of care while enrolled in HMP, and almost all of those enrollees said it was a doctor's office or clinic rather than an ER.

Use of primary care

Access to primary care markedly improved after enrollment in HMP. About one-fifth of enrollees reported that they had not had a primary care visit in five years or more before enrolling in HMP. PCPs also reported an increase in the number of new patients who had not seen a PCP in many years. Most enrollees saw a PCP while enrolled in HMP, especially enrollees with a chronic condition and those with a mental health condition and/or substance use disorder. Most enrollees reported that it was easy to get an appointment with their PCP. Among enrollees who reported not seeing their PCP in the past 12 months, over half said the reason was that they were healthy and did not need to see a provider.

During the initial two years of HMP enrollment, over two-thirds of enrollees in the Domain III study population made regular primary care visits. Among those with one of the four chronic conditions of interest (asthma, cardiovascular disease, chronic obstructive pulmonary disease, and diabetes), over 90% had regular primary care visits.

Emergency department use and inpatient utilization

During enrollees' initial 24 months of HMP enrollment, the rates of ED visits per 1,000 member-months decreased significantly from 71.0 in Year 1 to 69.5 in Year 2 for the overall Domain III study population. The largest decreases in ED visit rates were observed among enrollees with one of the four chronic conditions of interest (asthma, cardiovascular disease, chronic obstructive pulmonary disease, and diabetes). Lower ED visit rates were observed for enrollees who agreed to address at least one healthy behavior change, compared to those who did not complete an HRA. The Domain V/VI analysis also found that use of the ED declined over time. Nearly two-thirds of enrollees reported that they were more likely to contact their usual doctor's office before going to the ED than before they enrolled in HMP. Many PCPs reported offering services to enrollees to help them avoid non-urgent ED use, such as walk-in appointments, 24-hour telephone triage, weekend and evening appointments, and care coordinators or social work assistance for patients with complex problems.

Among enrollees with one of the four chronic conditions of interest in the Domain III analysis, inpatient utilization decreased from Year 1 to Year 2, and was lower for the subset who agreed to address at least one behavior change.

Preventive services and health behaviors

Most HMP enrollees received at least one preventive service, including cancer screening, vaccination, preventive medical or dental visits, and smoking cessation assistance. During enrollees' initial 24 months of HMP enrollment, receipt of preventive services was more common among women, enrollees ages 50-64, white enrollees, and those with one of the four chronic conditions of interest (asthma, cardiovascular disease, chronic obstructive pulmonary disease, and diabetes). Enrollees with regular primary care visits had substantially higher rates of preventive services compared to enrollees who did not have primary care visits. Nearly all enrollees who completed an HRA received at least one preventive service, compared with about four-fifths of enrollees who did not complete an HRA.

While those who completed HRAs were more likely to have a preventive visit, preventive screening, or use a co-pay exempt medication to control a chronic disease, it could not be determined if the HRA increased these behaviors or if they were the result of a physician visit.

Many enrollees also reported positive changes in their health behaviors over time after enrolling in HMP. For example, about half of enrollees who reported any binge drinking in 2016 decreased their alcohol use from 2016 to 2017 and about one in seven of those who reported smoking or using tobacco in 2016 had quit smoking or using tobacco in 2017. There was no association between decreasing frequency of binge drinking or quitting smoking or using tobacco from 2016 to 2017 and completion of an HRA.

In an analysis conducted under Domain V/VI, respondents to the 2016 HMV survey who received a healthy behavior reward were significantly more likely to say they were trying to quit smoking, and to report they had a flu shot.

Health Risk Assessment

Only about one-quarter of the Domain III study population completed an HRA with attestation by their primary care physician, although half of enrollees surveyed in 2016 recalled answering HRA questions. Most enrollees who reported completing the HRA believed it taught them something they did not know about their health, was valuable for improving their health, was helpful for their PCP to understand their health needs, or motivated them to be more responsible for their health. Among enrollees in the Domain III study population who completed an HRA with physician attestation, nearly 90% selected a health behavior to change. Among 2016 HMV Survey respondents who reported completing an HRA, 80.7% chose to work on a health behavior.

PCPs who reported on their early experiences with the HRA found them useful for identifying and discussing health risks, persuading patients to address their most important health risks, and documenting behavior change goals.

Prevalence of chronic conditions

Chronic health conditions were common among HMP enrollees. More than two-thirds of respondents to the 2016 HMV Survey reported one or more chronic health conditions, and nearly half of these enrollees reported having a chronic condition that was newly diagnosed after HMP enrollment. Among the Domain III study population, nearly one quarter were identified as having one or more of the four chronic conditions of interest, including asthma (5.0%), cardiovascular disease (4.0%), COPD (8.8%), and diabetes (9.9%).

Evaluation Goal 4: Beneficiaries feel that the Healthy Michigan Program has a positive impact on personal health outcomes and financial well-being.

Summary of Findings and Opportunities for Improvement

Substantial proportions of HMP enrollees reported improved physical, mental, and oral health as well as financial well-being since enrolling in HMP. HMP coverage was particularly beneficial for enrollees with chronic health conditions that could be diagnosed and treated more effectively. Many enrollees also reported positive perspectives on HMP and that their ability to work had improved since enrolling in HMP.

There were some areas in which enrollee understanding of their coverage and cost-sharing requirements could be improved. For example, many enrollees continued to be unaware in the 2017 HMV FLUP Survey that HMP provides coverage for smoking cessation and substance use disorder treatment. Increased education and targeted reminders over time about HMP covered benefits could be helpful. Many enrollees may not have a basic understanding of the cost-sharing within HMP such as that contributions for those with incomes above 100% FPL are assessed regardless of whether care is received.

Understanding of the healthy behavior rewards associated with HRA completion also remained low. To improve beneficiary engagement, more extensive efforts to educate enrollees about program features may be needed, particularly related to HRAs and cost-sharing features that are distinctive to HMP. For example, tailored communication materials may help to communicate HMP's healthy behavior rewards and cost-sharing features, such as no copays for some services, to enrollees with and without chronic conditions or other medical needs.

Health outcomes

Substantial proportions of HMP enrollees reported improvements in their health, including their physical, mental, and oral health, after enrolling in HMP. The proportion of current and former enrollees who reported fair/poor health decreased from 2016 to 2017 (from 30.7% to 27.0%) and the mean number of days per month of poor physical health reported by current and former enrollees decreased from 2016 to 2017 (from 6.9 to 5.7). Improvements in health were greater for African Americans than for non-Hispanic whites, which may lead to reductions in health disparities.

Among the subset of enrollees in the Domain III study population who reported their health status in both Year 1 and Year 2, 19.5% reported an improvement in health status.

PCPs with patients covered by HMP who were previously uninsured also reported positive impacts of the program on health, health behaviors, health care and function for those patients.

They reported that the greatest impact was on control of chronic conditions, early detection of serious illness, and improved medication adherence.

Employment and ability to work

HMP enrollees reported positive impacts of HMP on employment and ability to work. When surveyed in 2016, about half of HMP enrollees were working and about one-quarter were out of work. Among employed respondents, more than two-thirds reported that getting HMP insurance helped them do a better job at work. Among employed/self-employed respondents who had changed jobs in the past 12 months, over one-third strongly agreed or agreed that having HMP insurance helped them get a better job. Among respondents who were out of work, over half strongly agreed or agreed that HMP made them better able to look for a job. Among unemployed respondents, for example, improved oral health was associated with reporting that HMP had made them better able to look for a job. Among employed respondents, improved oral health was associated with reporting better job performance.

Between 2016 and 2017, the proportion of current and former enrollees who reported being employed and/or students increased from 54.3% to 60.0%.

Two-thirds of respondents to the 2017 HMV NLE Survey agreed that having HMP helped them get healthy enough to work, attend school, or take care of their family.

Financial well-being

HMP lessened financial burdens from health care, with most 2016 HMV Survey respondents reporting that their problems paying medical bills had gotten better since enrolling in HMP.

Cost-sharing

Most enrollees who reported receiving a MI Health Account statement agreed that they carefully review each statement to see how much they owe and that the statement helps them be more aware of the cost of health care.

Just over half of the enrollees faced a cost-sharing obligation. Overall, about one-quarter of enrollees who owed anything paid in full, and nearly half made no payments into their MI Health Accounts. People with incomes above 100% of the FPL were more likely to pay some or all of their cost-sharing than people with incomes below 100% FPL despite their higher average obligations.

Most enrollees perceived HMP cost-sharing to be fair and affordable. Most enrollees also strongly agreed or agreed that getting discounts on copays and premiums as a reward for working on improving your health is a good idea. Knowledge of HMP cost-sharing requirements varied among HMP enrollees. For example, while a majority of enrollees were aware that some services were exempt from copays, most did not know that they could reduce their cost-sharing obligations by completing an HRA or that they could not be disenrolled for failure to pay. Among respondents to the 2016 HMV Survey, fewer than half (40.0%) of respondents with an income of 100-133% FPL were aware that contributions are charged monthly regardless of health care use.

Medical spending remained flat or declined for those with higher levels of cost-sharing, either from co-payments or monthly contributions. Cost-sharing requirements may reduce the amount spent by plans and enrollees on medical services, though there may be other reasons for the decline. Cost-sharing did not appear to affect the mix of high- and low-value services used.

Knowledge and understanding of HMP covered benefits
The majority of enrollees knew that HMP covers prescription medications, dental care, eyeglasses, and counseling for mental or emotional problems while less than half knew that HMP covers substance use treatment and treatment to stop smoking.

Perspectives on HMP coverage
Respondents to the 2017 HMV NLE Survey described HMP as playing a vital role in bridging their health insurance coverage during vulnerable periods as many agreed that HMP gave them coverage when they could not get insurance through an employer and that HMP helped them stay insured between jobs or between school and a job.

Evaluation Goal 5: Examine the experiences of former HMP enrollees and individuals eligible for, but unenrolled in, HMP.

Enrollees with incomes just above 100% FPL had a higher rate of disenrollment than those just below it, however, those with chronic conditions were not more likely to disenroll. Former enrollees most commonly reported that their disenrollment was due to an income increase and/or getting other health insurance coverage. Many former HMP enrollees were uninsured and those with post-HMP coverage experienced challenges paying for coverage and care.

Data from interviews with people who were eligible but not enrolled in HMP suggest that some people remain unaware of HMP, and some of those who know about it have misunderstandings about eligibility criteria and about features of the HMP program that are distinct from commercial insurance. Continued education and outreach is important as some people may still not know about HMP or may have become newly eligible. It may be useful for HMP outreach efforts to highlight the differences between HMP and traditional Medicaid (including the eligibility criteria and the benefits) and to clarify differences between HMP, Marketplace plans, and other private insurance plans. In addition, those who disenroll from HMP should be provided with information about other potential health insurance options given that people do not necessarily gain other coverage when no longer enrolled in HMP.

Predictors of and reasons for disenrollment from HMP
Enrollees with incomes just above 100% FPL had a higher rate of disenrollment than those just below it, which may have been related to monthly contributions. However, those with chronic conditions and incomes >100% FPL were not more likely to disenroll. This finding suggests that enrollees with greater medical needs may be more willing to prioritize maintaining coverage and making cost-sharing payments than enrollees with fewer medical needs. Conversely, levying premium contributions on enrollees with incomes >100% FPL may lead healthier enrollees to drop coverage.

Former enrollees most commonly reported that their disenrollment was due to an income increase and/or getting other health insurance coverage. Very few respondents reported ending their HMP enrollment because they were dissatisfied with HMP costs or services.

Experiences of former enrollees

Among respondents to the 2017 HMV NLE Survey, nearly half reported having no health insurance, one-third had employer-sponsored coverage, and the remainder had an individual plan or government-sponsored coverage (e.g. Medicare, VA). Many respondents with post-HMP health insurance coverage experienced challenges paying for coverage and care. More than half of those with employer-sponsored or individual plan coverage reported paying a lot more for their health care than when they were enrolled HMP, and more than one-quarter reported problems paying medical bills.

A likely barrier to post-HMP insurance coverage is a lack of awareness of the full range of options. Only one quarter of respondents to the 2017 HMV NLE Survey sought help getting other coverage; over half said they knew nothing at all about the federal health insurance marketplace and subsidies for purchasing individual coverage. Compared to their counterparts with employer-sponsored insurance, former HMP enrollees with no insurance had a substantially higher risk of forgoing needed health care and of using the ER for care due to lack of other options. They reported worse access to all types of care. Two in five had problems paying medical bills.

Former enrollees, including those with and without insurance at the time of the survey, were more likely than current enrollees to report on the 2017 HMV FLUP Survey having recently forgone health care and dental care, usually due to cost or lack of coverage. Nearly half of former enrollees strongly agreed or agreed that they worry more about something bad happening to their health since their HMP coverage ended.

While former enrollees were less likely than those who remained enrolled to report having a regular source of care, and less likely to report that their regular source of care is a doctor's office or clinic, few named the ER as that source of care. More than three quarters of those who did report that their regular source of care is a doctor's office or clinic said they were still going to their HMP PCP. This suggests that even shorter-term HMP enrollment may promote a shift away from reliance on ERs to primary care and may facilitate primary care continuity. However, one in three former enrollees agreed that sometimes they go to the ER because they do not have another place to get care.

Experiences of those eligible for but unenrolled in HMP

Interviews with those eligible for HMP but unenrolled indicate that these individuals were often unaware of the program or knew little or nothing about its eligibility criteria, covered benefits or costs, including co-pays and contributions. Many thought that they would not be eligible based on previous experiences with Medicaid, had negative impressions of Medicaid or negative experiences or perceptions of the administrative processes, or felt that they were healthy or did not need formal medical care.

The costs associated with HMP did not appear to be a specific reason for not enrolling because few interviewees knew anything about its costs. However, many remained uninsured because

of the perception of the high costs of insurance based on their previous experience or research into private, Marketplace or employer-based insurance. Many assumed they could not afford insurance and were unaware that they may qualify for a more affordable option for coverage.

Although most interviewees were employed at least part-time, their employers either did not offer health insurance or they were ineligible. Some interviewees, especially those who reported being healthy, thought remaining uninsured improved their ability to pay for food, housing and other expenses. However, some felt financially at risk by being uninsured and some reported juggling medical bills in addition to other necessary expenses.

People who were eligible but not enrolled in HMP reported forgoing preventive care and dental care, and some also went without needed specialty care, due to cost. Most limited health care use except in the most serious situations. Those eligible but not enrolled in HMP reported that the consequences of forgone care included pain, deteriorating health, and not getting preventive care needed to detect or monitor health conditions.

G. Interpretations, Policy Implications, and Interactions with Other State Initiatives

The State of Michigan largely achieved the goals set forth at the outset of the Healthy Michigan Plan Section 1115 Demonstration Waiver approved by CMS in December 2013. Sizable reductions were achieved in uncompensated care provided by hospitals and in the proportion of low-income adults who were uninsured. Among those who enrolled in HMP, access to primary care improved substantially, particularly for those with chronic health conditions. Use of preventive services was also widespread among HMP enrollees. Sizable proportions of enrollees reported improved physical health, mental health, and oral health. Many also reported improved ability to work or to seek employment if they were not already working.

To help isolate the impact of HMP from other policy changes, changes in uncompensated care and insurance coverage in Michigan were compared to states that did and did not expand their Medicaid programs. These comparisons with other states suggest that changes in uncompensated care and insurance rates observed for low-income adults in Michigan were similar to those in other expansion states and larger than those in non-expansion states.

Three key HMP components – HRAs, financial incentives for healthy behaviors, and MI Health Accounts – appeared to have limited effects on enrollees and their actions within HMP. Only one-quarter of enrollees completed an HRA with physician attestation, though about one half of enrollees recalled answering HRA questions and many reported the HRA helped them to think more about their health. Many enrollees were not familiar with financial incentives to reduce cost-sharing if they completed an HRA or received a preventive service. Finally, most enrollees viewed the HMP cost-sharing requirements communicated via their MI Health Accounts to be fair, but only one-quarter of those with cost obligations paid in full and half of those with cost obligations made no payments. These shortfalls in MI Health Account payments likely reflect the very low incomes of many HMP enrollees, as well as their limited understanding of the quarterly MI Health Account statements. Thus, for Michigan and other states seeking to implement or continue these three HMP components, expanded educational outreach may be required to engage enrollees more fully in adhering to these program features.

A fundamental challenge associated with this evaluation is that HMP was implemented in the context of broader changes to health insurance markets in Michigan and in other states. In particular, the health insurance exchange, the associated premium tax credits, and the individual mandate all affected consumer and employer behavior. An increase in private insurance coverage as people enrolled in Marketplace health plans through the newly established health insurance exchange is also likely to have reduced the amount of uncompensated care provided to uninsured patients. However, the longer-term trend toward private plans with high deductibles has meant that more privately insured patients may be unable to pay large out-of-pocket obligations when they are hospitalized, thereby increasing uncompensated care provided to privately insured patients.

H. Lessons Learned and Recommendations

In evaluating a new program such as HMP, a formative assessment during the initial period of implementation can be useful. During the first year of HMP implementation, this evaluation included qualitative interviews with providers and HMP enrollees and a PCP survey. Through these efforts, we were able to identify several factors that may have affected the impact of HMP.

First, the relatively short period from the enactment of HMP in September 2013 to its launch in April 2014 provided a limited timeframe for educating PCPs about HRAs – both the role of HRAs within the broader goals of HMP, as well as the logistics of completing the attestation process. Our evaluation found that in the initial year of HMP, many PCPs were uncertain about the HRA process. It is plausible that with greater understanding, PCPs could be more effective in communicating with HMP enrollees about the HRA process and goals.

Second, the MI Health Account was a new Medicaid program feature that was analogous to financial statements communicated by commercial insurance plans to their enrollees. This evaluation found that these statements were unfamiliar to HMP enrollees who had limited experience with private coverage. Even for enrollees with private insurance experience, some key differences (e.g., copays due not at the time of service but in conjunction with quarterly statements) may have impeded their understanding of the statements. Unfamiliar terminology (e.g., "contribution" rather than "premium") also may have affected enrollees' understanding of MI Health Accounts.

Third, HMP enrollees did not have an extended period to become familiar with the MI Health Account structure and to understand their expectations to contribute to the costs of care. As such, they may have had limited ability to appreciate the impact of cost-sharing reductions, both from HRA completion and from exemptions to copays for preventive services, and to associate certain health-seeking choices with their own costs of care.

The ability to evaluate key features of HMP was also limited by the lack of baseline data on enrollees' health behaviors and use of services prior to HMP enrollment. As such, we were not well-positioned to detect changes in enrollee-reported characteristics, beliefs, and utilization over time, but rather relied on enrollee recall of their pre-HMP experiences. We recommend the use of other state datasets (e.g., unemployment insurance records or tax data) as a cost-efficient way to obtain baseline data on income or employment for longitudinal comparisons.

Along with baseline data, phased implementation or randomization would a provide more rigorous design to evaluate specific program features. Quasi-experimental or experimental designs would provide concurrent comparison groups to measure changes and support causal inferences about key program features. To enable more robust evaluation of key programmatic changes, phased or randomized approaches should be considered when implementing future Section 1115 waivers in Michigan and other states.

I. Attachments

- Evaluation design