Primary Care Practitioners' Views of the Impact of the Healthy Michigan Plan

June 29, 2017

University of Michigan
Institute for Healthcare Policy & Innovation

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Acknowledgement: The authors would like to acknowledge the valuable insights provided by Zachary Rowe from Friends of Parkside and the members of the Steering Committee: Karen Calhoun, Michigan Institute for Clinical and Health Research and City Connect Detroit; Adnan Hammad, Global Health Research, Management and Solutions; Lynnette LaHahnn, AuSable Valley Community Mental Health Authority; Charo Ledón, Acción Buenos Vecinos; Raymond Neff, Spectrum Health; Jennifer Raymond, Mid Michigan Community Action; George Sedlacek, Marquette County YMCA; and Ashley Tuomi, American Indian Health and Family Services.

EXECUTIVE SUMMARY

The University of Michigan Institute for Healthcare Policy and Innovation (IHPI) is conducting the evaluation required by the Centers for Medicare and Medicaid Services (CMS) of the Healthy Michigan Plan (HMP) under contract with the Michigan Department of Health and Human Services (MDHHS). The fourth aim of Domain IV of the evaluation is to describe primary care practitioners' experiences with Healthy Michigan Plan beneficiaries, practice approaches and innovation adopted or planned in response to the Healthy Michigan Plan, and future plans regarding care of Healthy Michigan Plan patients.

Methods

We conducted 19 semi-structured telephone interviews with primary care practitioners caring for Healthy Michigan Plan 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 Healthy Michigan Plan patients about practice changes and innovations since April 2014 and their experiences caring for patients with the Healthy Michigan Plan.

Results

The final response rate was 56% resulting in 2,104 respondents.

Knowledge of Patient Insurance

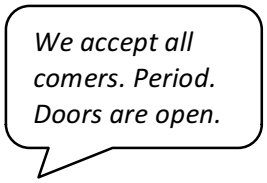
- 53% report knowing a patient's insurance at the beginning of an appointment
- 91% report that it is easy to find out a patient's insurance status
- 35% report intentionally ignoring a patient's insurance status

Familiarity with HMP

- 71% very or somewhat familiar with how to complete a Health Risk Assessment
- 25% very/somewhat familiar with beneficiary cost-sharing
- 36% very/somewhat familiar with healthy behavior incentives for patients
- PCPs working in small, non-academic, non-hospital-based and FQHC practices and those with predominantly Medicaid or uninsured patients reported more familiarity with HMP

Acceptance of Medicaid and HMP

- 78% report accepting <u>new</u> Medicaid/HMP patients – more likely if:
  - Female, racial minorities or non-physician PCPs
  - Internal medicine specialty
  - Salary payment
  - Medicaid predominant payer mix
  - Previously provided care to underserved
  - Stronger commitment to caring for underserved
- 73% felt a responsibility to care for patients regardless of their ability to pay
- 72% agreed all providers should care for Medicaid/HMP patients



Changes in Practice

- 52% report an increase in new patients to a great or to some extent
- 57% report an increase in the number of new patients who hadn't seen a PCP in many years
- 51% report established patients who had been uninsured gained insurance
- Most practices hired clinicians (53%) and/or staff (58%) in the past year
- 56% report consulting with care coordinators, case managers and/or community health workers
- 41% said that almost all established patients who request a same or next day appointment can get one; 34% said the proportion getting those appointments had increased over the past year
- FQHCs, those with predominately uninsured, Medicaid and mixed payer mixes and suburban practices were more likely to report an increase in new patients. FQHCs, and those with predominately Medicaid payer mix, were more likely to report existing patients who had been uninsured gained insurance, and an increase in the number of patients who hadn't seen a PCP in many years.
- Large and FQHC practices were more likely to have hired new clinicians in the past year. Small, non-FQHC, academic and suburban practices and were less likely to report hiring additional staff.
- Large and FQHC practices and those with predominantly private or uninsured payer mixes were all more likely to report consulting with care coordinators, case managers and/or community health workers in the past year.

Your working poor people who just were in between the cracks, didn't have anything, and now they've got something, which is great.

Experiences caring for HMP Beneficiaries - Health Risk Assessments

- 79% completed at least one HRA with a patient; most of those completed >10
- 65% don't know if they or their practice has received a bonus for completing HRAs
- PCPs reported completing more HRAs if they
  - Were located in Northern regions
  - Were paid by capitation or salary compared to fee-for-service
  - Reported receiving a financial incentive for completing HRAs
  - Were in a smaller practice (5 or fewer) size
- 58% reported that financial incentives for patients and 55% reported financial incentives for practices had at least a little influence on completing HRAs
- 52% said patients' interest in addressing health risks had at least as much influence
- 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

What I've heard people say is "I just want to stay healthy or find out if I'm healthy."

ER Use and Decision Making

- 30% felt that they could influence non-urgent ER use by their patients a great deal (and 44% some)
- 88% accepted major or some responsibility as a PCP to decrease non-urgent ER use
- Many 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 identified care without an appointment, being the place patients are used to getting care and access to pain medicine as major influences for non-urgent ER use

People who work day shift…It's easier for them to go to the ER or something for a minor thing because they don't have to take time off work. That's a big deal.

- 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

Access

- PCPs with HMP patients who were previously uninsured reported some or great impact on health, health behavior, health care and function for those patients. The greatest impact was for control of chronic conditions, early detection of serious illness, and improved medication adherence
- PCPs 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

I learned a long time ago if the patient doesn't take the medicine, they don't get better…if they don't have insurance to cover it and they don't ever pick it up, then they're not going to take it.

It can still take up to six months to see a psychiatrist unless you get admitted to the hospital.

Discussing Costs with Patients

- 22% of PCPs reported discussing out-of-pocket costs with an HMP patient. The patient was the most likely one to bring up the topic
- 56% of the time, such a discussion resulted in a change of management plans
- 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 who were younger and in rural practices were more likely to report a change in management due to cost conversations with patients

Impact and Suggestions to Improve the Healthy Michigan Plan

We provided PCPs open-ended opportunities in the survey to provide additional information. We asked about the impact of HMP:

- PCPs noted HMP has allowed patients to get much needed care, improved financial stability, provided a sense of dignity, improved mental health, increased accessibility to care and compliance (especially medications), helped people engage in healthy behaviors like quitting smoking and saved lives

And also about suggestions to improve HMP:

- Educating patients about health insurance, health behaviors, when and where to get care, medication adherence and greater patient responsibility
- Improving accessibility to other providers, especially mental health and other specialists, and improve reimbursement
- Educating providers and providing up-to-date information about coverage, formularies, administrative processes and costs faced by patients
- Better coverage for some services (e.g., physical therapy)
- Formularies should be less limited, more transparent and streamlined across plans
- Decrease patient churn on/off insurance

Primary Care Practitioners' Views of the Impact of the Healthy Michigan Plan

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METHODS

IN-DEPTH INTERVIEWS WITH PRIMARY CARE PRACTITIONERS

Sample: To develop PCP survey items and measures, and to enhance the interpretation of survey findings, we conducted 19 semi-structured interviews with primary care practitioners caring for Medicaid/Healthy Michigan Plan patients between December 2014 and April 2015. These interviews were conducted in five Michigan regions: Detroit, Kent County, Midland/Bay/Saginaw Counties, Alcona/Alpena/Oscoda Counties, and Marquette/Baraga/Iron Counties. These regions were purposefully selected to include racial/ethnic diversity and a mix of urban and rural communities. Interviewees were both physicians and non-physician practitioners who worked at small private practices, Federally Qualified Health Centers (FQHCs), free/low-cost clinics, hospital-based practices, or rural practices.

Interview Topics: Topics included: provider knowledge/awareness of patient insurance and experiences caring for HMP patients, including facilitators and challenges of accessing needed care; changes in practice, due to or to meet the needs of HMP patients; how decisions were made about whether to accept Medicaid/HMP patients and what might change PCPs' acceptance of new Medicaid/HMP patients in the future; provider and patient decision-making about ER use; experience with Health Risk Assessments (HRAs), and any knowledge or conversation with patients about out of pocket costs.

Analysis: Interviews were audio recorded, transcribed and coded iteratively using grounded theory and standard qualitative analysis techniques.[1,2] Quotations that illustrate key findings included in this report were drawn from these interviews.

SURVEY OF PRIMARY CARE PRACTITIONERS

To evaluate the impact of the Healthy Michigan Plan, we surveyed primary care practitioners about their experiences caring for Healthy Michigan Plan beneficiaries, new practice approaches and innovations, and future plans.

Sample: The sample was drawn from the 7,360 National Provider Identifier (NPI) numbers assigned in the MDHHS Data Warehouse as the primary care provider for at least one Healthy Michigan Plan managed care member as of April 2015. Eligible for the survey were those with at least 12 assigned members (an average of one per month); 2,813 practitioners were excluded based on <12 assigned members. Of the remaining 4,547 NPIs, 25 were excluded because the NPI entity code did not reflect an individual physician (20 were organizational NPIs, 4 were deactivated, and 1 was invalid). Also excluded were 161 physicians with only pediatric specialty; 4 University of Michigan physicians involved in the Healthy Michigan Plan evaluation; and 35 physicians with out-of-state addresses >30 miles from the Michigan border. After exclusions, 4,322 primary care practitioners (3686 physicians and 636 nurse practitioners/physician assistants) remained as the survey sampling frame.

Survey Design: The survey included measures of primary care practitioner and practice characteristic derived from published surveys and reports,[3,4,5,6,7] and measures related to the Healthy Michigan Plan on a variety of topics, including:

- Plans to accept new Medicaid patients[8]
- Perceptions of difficulty accessing care for Healthy Michigan Plan beneficiaries with parallel questions about difficulty accessing care for privately insured patients
- Experiences with Healthy Michigan Plan beneficiaries regarding decision making about emergency department use
- Perceptions of influences on non-urgent ER use by Healthy Michigan Plan beneficiaries
- Practice approaches in place to prevent non-urgent ER use
- Experiences of caring for newly insured Medicaid patients, including ability to access non-primary care (specialty care, equipment, medication, dental care, mental health care)[6,7]
- New practice approaches adopted within the previous year
- Future plans regarding care of Medicaid patients

Drs. Goold, Campbell and Tipirneni developed the survey questions in collaboration with other members of the research team. The development process began by identifying the key survey domains through an iterative process with the members of the evaluation team. Then, literature searches identified survey items and scales measuring the domains of interest.[3-8] For domains without existing valid measures, items were developed from data collected from the 19 semi-structured individual interviews with PCPs. New items were cognitively pretested with two primary care practitioners who serve Healthy Michigan Plan patients, one MD from a low-cost clinic and one PA from a private practice. Both practitioners were asked about their understanding of each original survey item, their capacity to answer these questions, and how they would answer said items. The final survey itself was pretested with one PCP for timing and flow.

Survey Administration: Primary care provider addresses were identified from the MDHHS data warehouse Network Provider Location table, the MDHHS Provider Enrollment Location Address table, and the National Plan & Provider Enumeration System (NPPES) registry detail table linked to NPI. Research assistants reviewed situations where primary care practitioners had multiple addresses, and selected (a) the address with more detail (e.g., street address + suite number, rather than street alone), (b) the address that occurred in multiple databases, or (c) the address that matched an internet search for that physician.

The initial survey mailing occurred in June 2015 and included a personalized cover letter describing the project, a Fact Sheet about the Healthy Michigan Plan, a hard copy of the survey, a $20 bill, and a postage-paid return envelope. The cover letter gave information on how to complete the survey via Qualtrics, rather than hard copy. Two additional mailings were sent to nonrespondents in August and September 2015. Data from mail surveys returned by November 1, 2015, were entered in an excel spreadsheet, reviewed for accuracy, and subsequently merged with data from Qualtrics surveys.

Survey Response Characteristics: Of the original sample of 4,322 primary care practitioners in the initial sample, 501 envelopes were returned as undeliverable. Of the 2,131 primary care practitioners who responded, 1,986 completed a mailed survey, 118 completed a Qualtrics survey, and 27 were ineligible (e.g., retired, moved out of state). The final response rate was 56% (54% for physicians, 65% for nurse practitioners/physician assistants).

Comparison of the 2,104 eligible respondents and the 1,690 nonrespondents revealed no differences in gender, birth year, number of affiliated Medicaid managed care plans, and FQHC designation. More nonrespondents had internal medicine specialty.

Table 1. Comparison of Respondents to Nonrespondents

	Respondents N=2104	Nonrespondents N=1690	p
Gender			
Female	44.6	43.7	0.55
Male	55.4	56.3	
Birth Year			
1970 or earlier	71.0	69.5	0.32
1971 or later	29.0	30.5	
Medicaid Managed Care Plans			
1 plan	20.5	20.1	0.48
2 plans	27.2	25.7	
3 or more plans	52.3	54.2	
Practice setting			
FQHC	14.9	14.7	0.86
Not FQHC	85.1	85.3	
Specialty			
Family/general practice	54.5	51.0	
Internal medicine	27.3	36.3	<.0001
Nurse practitioner/physician assistant	17.0	11.3	
Ob-gyn/other	1.2	1.4	

Analysis: We calculated descriptive statistics such as proportion of primary care practitioners reporting difficulty accessing specialty care for Healthy Michigan Plan beneficiaries or experiences related to emergency department decision making. No survey weighting was necessary, as the sample included the full census of PCPs with ≥12 HMP patients. Bivariate and multivariable logistic regression analysis was used to assess the association of independent variables (personal, professional and practice characteristics) with dependent variables - practice changes reported since Medicaid expansion. Multivariable models were run with and without interaction variables (Ownership*Practice size and FQHC*predominant payer type), and chi-square goodness-of-fit tests calculated. All analyses were performed using STATA version 14 (Stata Corp, College Station, TX. Quotes from practitioner interviews have been used to expound upon some key findings from our analysis of survey data.

SURVEY OF PRIMARY CARE PRACTITIONERS
RESULTS

Survey results are presented in the following format:

Topic

Key findings
Illustrative quote(s) from PCP interviews
Tables of Results
Results of analysis of relationships (e.g., chi-square, multivariable logistic regression)

Respondents' Personal, Professional and Practice Characteristics

Just over half of respondents were men. About 80% self-identified as white. Eleven percent identified as Asian/Pacific Islander, with small numbers in other racial and ethnic groups. More than 80% of respondents were physicians, although nearly three-quarters had nonphysician providers in their practice. About half identified their specialty as family medicine and a quarter as internal medicine. More than half were in practices with 5 or fewer providers; 15% practiced in FQHCs. Three-quarters of PCP respondents practiced in urban settings, 31% in Detroit. Their self-reported payer mix varied; about one-third had Medicaid/HMP as the predominant payer.

Table 2. Personal, Professional and Practice Characteristics of PCP Respondents (N=2104)

Personal characteristics		
Gender	N	%
Male	1165	55
Female	939	45
Race		
White	1583	79
Black/African-American	93	5
Asian/Pacific Islander	224	11
American Indian/Alaska Native	10	<1
Other	86	4
Ethnicity		
Hispanic/Latino	46	2
Non-Hispanic/Latino	1978	98
Professional characteristics		
Provider type	N	%
Physician	1750	83
Non-Physician (NP/PA)	357	17
Specialty		
Family medicine	1123	53
Internal medicine	507	24
Medicine-Pediatrics	67	3
General practice (GP)	24	1
Obstetrics/Gynecology (OB/Gyn)	12	<1
Nurse practitioner (NP)	192	9
Physician's Assistant (PA)	165	8
Other	14	<1
Board/Specialty certification	N	%
Yes	1695	82
No	383	18

Table 2 (continued). Personal, Professional and Practice Characteristics of PCP Respondents

Years in practice		
<10 years	520	26
10-20 years	676	34
>20 years	810	40
Provider ownership of practice		
Full-owner	446	22
Partner/part-owner	232	11
Employee	1352	1352
Practice characteristics		
Practice size (mean, median, SD)	7.5, 5, 16.5	
Small (≤5 practitioners)[a]	1157	57.5
Large (≥6 practitioners)	855	42.5
Presence of non-physician practitioners in practice[b]	1275 (72%)	72
Federally qualified health center (FQHC)	311 (15%)	15
University/teaching hospital practice	276 (13%)	13
Hospital-based practice (non-teaching)	643 (31%)	31
Payer mix (current % of patients with insurance type)	Mean %	SD
Private	32.8%	19.8
Medicaid	23.3%	18.3
Healthy Michigan Plan	10.9%	11.8
Medicare	30.2%	16.7
Uninsured	5.8%	7.1
Predominant payer mix[c]	N	%
Private	661	35
Medicaid/Healthy Michigan Plan	677	35
Medicare	421	22
Uninsured	12	1
Mixed	141	7
Payment arrangement		
Fee-for-service	784	38
Salary	946	45
Capitation	44	2
Mixed	275	13
Other	40	2
Urbanicity[d]		
Urban	1584	75
Suburban	193	9
Rural	327	16

[a] Dichotomized at sample median

[b] >5% missing

[c] Composite variable of all current payers: payer is considered predominant for the practice if >30% of physician's patients have this payer type and <30% of patients have any other payer type. "Mixed" includes practices with more than one payer representing >30% of patients, or practices with <30% of patients for each payer type.

[d] Zip codes and county codes were linked to the U.S. Department of Agriculture Economic Research Service 2013 Urban Influence Codes to classify regions into urban (codes 1-2), suburban (codes 3-7) and rural (codes 8-12) designations.

Knowledge of Patient Insurance

Because we relied on PCPs to report their experiences caring for patients with Healthy Michigan Plan coverage we asked them questions about their knowledge of patients' insurance status.

Key findings: About half report knowing what kind of insurance a patient has at the beginning of an encounter. Nearly all report that it is easy to find out a patient's insurance status. About a third report intentionally ignoring a patient's insurance status.

Table 3. Knowledge of Patients' Insurance Status

	Strongly agree	Agree	Neither	Disagree	Strongly disagree
If I need to know a patient's insurance status it is easy to find out (N=2081)	904 (43.4%)	982 (47.2%)	131 (6.3%)	57 (2.7%)	7 (0.3%)
I know what kind of insurance a patient has at the beginning of an encounter (N=2081)	442 (21.2%)	671 (32.2%)	342 (16.4%)	427 (20.5%)	199 (9.6%)
I ignore a patient's insurance status on purpose so it doesn't affect my recommendations (N=2078)	294 (14.1%)	433 (20.8%)	549 (26.4%)	577 (27.8%)	225 (10.8%)
I only find out about a patient's insurance coverage if they have trouble getting something I recommend (N=2071)	281 (13.6%)	551 (26.6%)	393 (19.0%)	649 (31.3%)	197 (9.5%)

Familiarity with Healthy Michigan Plan

Key findings: PCPs report familiarity with how to complete and submit a Health Risk Assessment. They report less familiarity with beneficiary cost-sharing and rewards, and the availability of specialists and mental health services. PCPs working in small, non-academic, non-hospital-based and FQHC practices reported more familiarity with Healthy Michigan Plan.

> *[O]ne of our challenges…from an FQHC standpoint, when we have patients that do have Medicaid, we do get an increased reimbursement. So that number…being aware of that is, I think, very important for all of the providers in the clinic and probably all of the staff as well.*
>
> – Urban physician, FQHC

In general, how familiar are you with the Healthy Michigan Plan? (N=2031)

Very familiar	Somewhat familiar	A little familiar	Not at all familiar
307 (15.1%)	776 (38.2%)	557 (27.4%)	391 (19.3%)

Table 4. Familiarity with Healthy Michigan Plan

How familiar are you with the following:	Very familiar	Somewhat familiar	A little familiar	Not at all familiar
How to complete a Health Risk Assessment	966 (47.6%)	472 (23.3%)	276 (13.6%)	314 (15.5%)
How to submit a Health Risk Assessment	700 (34.6%)	469 (23.2%)	355 (17.5%)	501 (24.7%)

Table 4 (continued). Familiarity with Healthy Michigan Plan

How familiar are you with the following:	Very familiar	Somewhat familiar	A little familiar	Not at all familiar
Healthy behavior incentives that Healthy Michigan Plan Patients can receive	257 (12.6%)	481 (23.7%)	548 (27.0%)	746 (36.7%)
Specialists available for Healthy Michigan Plan patients	189 (9.3%)	553 (27.3%)	533 (26.3%)	752 (37.1%)
Mental health services available for Healthy Michigan Plan patients	156 (7.7%)	369 (18.2%)	564 (27.8%)	943 (46.4%)
Out-of-pocket expenses Healthy Michigan Plan Patients have to pay	137 (6.7%)	377 (18.6%)	577 (28.4%)	940 (46.3%)
Dental coverage in the Healthy Michigan Plan	89 (4.4%)	274 (13.5%)	415 (20.4%)	1,254 (61.7%)

We hypothesized that PCPs in different practice settings would differ in their familiarity with Healthy Michigan Plan. We found that PCPs working in **small**, **non-academic**, **non-hospital-based** and **FQHC** practices, as well as practices with **predominantly Medicaid or uninsured payer mixes**, reported greater familiarity with Healthy Michigan Plan. Differences in familiarity based on practice size, academic or hospital-based status were relatively modest.

Acceptance of Medicaid and Healthy Michigan Plan

Key findings:

About 4 in 5 survey respondents reported accepting <u>new</u> Medicaid/Healthy Michigan Plan patients. Most PCPs reported having at least some influence on that decision. Capacity to accept any new patients was rated as a very important factor in decisions to accept Medicaid/Healthy Michigan Plan patients.

> *We accept all comers. Period. Doors are open. Come on in. But I have to add a comment to that or a clarification…a qualification to that. My nurse manager…The site manager just came to me on Monday of this week and said, "You know, [name], if a person wants a new appointment with you, we're scheduling…It's like the end of April. There are so many patients now that are in the system that even for routine follow-up stuff, we can't get them in."*
>
> – Urban physician, FQHC

In multivariable analyses PCPs were more likely to accept new Medicaid/Healthy Michigan Plan patients if female, racial minorities, non-physician providers, specializing in internal medicine, paid by salary vs. fee-for service, with prior history of care to the underserved, or working in practices with Medicaid predominant payer mixes. PCPs were less likely to accept new Medicaid/Healthy Michigan Plan patients if they considered their practice's overall capacity to accept new patients important.

> *[A]s long as the rural health center plans still pay me adequately, I don't foresee making any changes. If they were to all of a sudden say, "Okay, we're only going to reimburse 40% or 50% of what we used to," that would be enough to put me out of business. So I would think twice about seeing those patients then, but as long as they continue the way they have been for the last six years that I've owned the clinic, I don't see making any changes. It works just fine.*
>
> – Rural nurse practitioner, Rural health center

PCPs in the Detroit area were more likely to accept new Medicaid/Healthy Michigan Plan patients than PCPs in other regions of the state. Of PCPs' <u>established patients</u>, an average of 11% had

Healthy Michigan Plan and 23% had Medicaid as their primary source of coverage (see demographics table, pg. 4-5).

Most PCPs reported providing care in a setting that serves poor and underserved patients with no anticipation of being paid in the past three years, and nearly three-quarters felt a responsibility to care for patients regardless of their ability to pay. Nearly three-quarters agreed all practitioners should care for Medicaid/Healthy Michigan Plan patients.

We asked PCPs whether they were currently accepting new patients with Healthy Michigan Plan and other types of insurance:

Table 5. Acceptance of New Patients by Insurance Type[5]

Accepting *new* patients, by type of insurance	N (%)
Private	1774 (87%)
Medicaid*	1517 (75%)
Healthy Michigan Plan*	1461 (73%)
Medicare	1717 (84%)
No insurance (i.e., self-pay)	1541 (76%)
*Combined, 1575 (78%) of PCP respondents reported accepting new patients with either Healthy Michigan Plan or Medicaid.	

How much influence do you have in making the decision to accept or not accept Medicaid or Healthy Michigan Plan patients in your practice?

The decision is entirely mine	I have a lot of influence	I have some influence	I have no influence
459 (23%)	275 (14%)	425 (21%)	866 (43%)

Table 6. Importance for Accepting New Medicaid or Healthy Michigan Plan Patients

Please indicate the importance of each of the following for your practice's decision to accept new Medicaid or Healthy Michigan Plan patients:	Very important	Moderately important	Not very important	Not at all important	Don't know
Capacity to accept new patients with any type of insurance	774 (38%)	638 (31%)	187 (9%)	177 (9%)	273 (13%)
Reimbursement amount	532 (26%)	613 (30%)	274 (13%)	310 (15%)	327 (16%)
Availability of specialists who see Medicaid or Healthy Michigan Plan patients	528 (26%)	617 (30%)	310 (15%)	284 (14%)	313 (15%)
Psychosocial needs of Medicaid or Healthy Michigan Plan patients	404 (20%)	623 (30%)	376 (18%)	344 (17%)	304 (15%)
Illness burden of Medicaid or Healthy Michigan Plan patients	370 (18%)	574 (28%)	442 (22%)	370 (18%)	296 (14%)

We asked PCPs about their prior experience and attitudes toward caring for poor or underserved patients. A majority reported providing care in a setting that serves poor and underserved patients with no anticipation of being paid.

In the past three years, have you provided are in a setting that serves poor and underserved patients with no anticipation of being paid?

Yes	No
1,153 (57.0%)	871 (43.0%)

Table 7. Attitudes About Caring for Poor or Underserved Patients

	Strongly Agree	Agree	Neither	Disagree	Strongly disagree
All practitioners should care for some Medicaid/Healthy Michigan Plan patients	941 (45%)	555 (27%)	346 (17%)	150 (7%)	81 (4%)
It is my responsibility to provide care for patients regardless of their ability to pay	874 (42%)	642 (31%)	282 (14%)	190 (9%)	78 (4%)
Caring for Medicaid/Healthy Michigan Plan patients enriches my clinical practice	418 (20%)	590 (29%)	746 (36%)	246 (12%)	67 (3%)
Caring for Medicaid/Healthy Michigan Plan patients increases my professional satisfaction	379 (18%)	543 (26%)	794 (39%)	260 (13%)	88 (4%)

We hypothesized that acceptance of new Medicaid/Healthy Michigan Plan patients would vary by PCPs' personal, professional and practice characteristics. In multivariable analyses, **we found that PCPs were more likely to accept new Medicaid/Healthy Michigan Plan patients if female, racial minorities, non-physician providers, specializing in internal medicine, paid by salary vs. fee-for service, with prior history of care to the underserved, or working in practices with Medicaid predominant payer mixes. PCPs were less likely to accept new Medicaid/Healthy Michigan Plan patients if they considered their practice's overall capacity to accept new patients important.**

Table 8. Multivariable Analysis of Association of PCP and Practice Characteristics with Medicaid Acceptance

	Unadjusted Odds of Medicaid Acceptance (OR, 95% CI)	Adjusted[a] Odds of Medicaid Acceptance (aOR, 95% CI)
Personal and Professional characteristics		
Female Gender	1.59 (1.28-1.98)**	1.32 (1.01-1.72)*
Race		
White	[ref]	[ref]
Black/African American	3.93 (1.80-8.57)*	3.46 (1.45-8.25)*
Asian/Pacific Islander	1.76 (1.20-2.58)*	1.84 (1.21-2.80)*
Other	1.94 (1.04-3.62)*	1.79 (0.84-3.80)
Ethnicity, Hispanic	1.88 (0.79-4.48)	1.54 (0.56-4.22)
Years in Practice		
<10 years	[ref]	[ref]
10-20 years	0.69 (0.51-0.93)*	0.87 (0.62-1.22)
>20 years	0.51 (0.38-0.68)**	0.82 (0.58-1.15)
Non-physician provider (vs. physician provider)	4.78 (3.09-7.40)**	2.21 (1.32-3.71)*

Table 8 (continued). Multivariable Analysis of Association of PCP and Practice Characteristics with Medicaid Acceptance

	Unadjusted Odds of Medicaid Acceptance (OR, 95% CI)	Adjusted[a] Odds of Medicaid Acceptance (aOR, 95% CI)
Specialty		
Family medicine	[ref]	[ref]
Internal medicine	1.43 (1.12-1.83)*	1.47 (1.09-1.97)*
Nurse practitioner (NP)	7.81 (3.95-15.45)**	3.53 (1.64-7.61)*
Physician Assistant (PA)	4.07 (2.32-7.16)**	1.83 (0.94-3.56)
Other	2.86 (1.21-6.79)*	2.02 (0.75-5.45)
Board Certified	0.57 (0.42-0.77)**	0.92 (0.64-1.32)
Personal and Professional characteristics		
Payment arrangement		
Fee-for-service	[ref]	[ref]
Salary predominant	3.02 (2.36-3.85)**	2.09 (1.58-2.77)**
Mixed payment	1.34 (0.98-1.84)	1.43 (0.99-2.07)
Other payment arrangements	2.44 (1.01-5.93)*	1.33 (0.51-3.49)
PCP attitudes		
Capacity very/moderately important	0.53 (0.41-0.68)**	0.59 (0.44-0.79)**
Reimbursement very/moderately important	0.64 (0.51-0.79)**	0.86 (0.67-1.10)
Specialist availability very/moderately important	0.95 (0.76-1.17)	1.11 (0.86-1.42)
Illness burden of patients very/moderately important	1.02 (0.83-1.27)	1.03 (0.81-1.32)
Psychosocial needs of patients very/moderately important	1.10 (0.89-1.37)	1.14 (0.89-1.45)
Provided care to the underserved in past 3 years	1.64 (1.33-2.03)**	1.35 (1.05-1.73)*
Expressed commitment to caring for underserved	1.16 (1.13-1.19)**	1.14 (1.11-1.18)**
Practice characteristics		
Small practice with ≤5 providers (vs. large practice)	1.18 (0.95-1.47)	1.27 (0.99-1.63)
Urban (vs. rural/suburban)	0.69 (0.53-0.89)*	0.97 (0.72-1.31)
Federally qualified health center (FQHC)	2.40 (1.66-3.47)**	1.08 (0.70-1.65)
Mental health co-location	1.99 (1.42-2.79)**	1.16 (0.79-1.71)
Predominant payer mix		
Private insurance	[ref]	[ref]
Medicaid/HMP	8.64 (6.14-12.15)**	7.31 (5.05-10.57)**
Medicare	1.94 (1.47-2.55)**	2.04 (1.52-2.73)**
Mixed	3.32 (2.05-5.37)**	3.76 (2.24-6.30)**

[a] Adjusted for covariates of gender, years in training, physician vs. non-physician provider, board certification, urbanicity, FQHC status, predominant payer mix, except for when independent variable included in list.

* $p < 0.05$

** $p < 0.001$

Note: Each cell represents a separate bivariate or multivariable logistic regression model. Bivariate and multivariable logistic regression analysis was used to assess the association of the independent variables of PCP personal, professional and practice characteristics, as well as attitudes, with the dependent variable of PCP Medicaid acceptance.

Changes in Practice

Key findings:

Most PCPs reported an increase in new patients and in the number of new patients who hadn't seen a PCP in many years.

Really the only thing I know about the expansion is in early 2014 we started getting a way lot more requests for a new patient visit than we've ever had before. I was just like, "what is going on? We don't get 25 requests for new patients/month." So when it started really climbing, that's when I figured out, "Okay. It's probably due to the Obamacare Medicaid expansion."

– Urban physician; Small, private practice

Most reported established patients who had been uninsured gained insurance. Fewer reported patients changing from other insurance to Healthy Michigan Plan.

Your working poor people who just were in between the cracks, didn't have anything, and now they've got something, which is great.

– Urban physician, FQHC

Most practices hired clinicians and/or staff in the past year. Most reported consulting with care coordinators, case managers and/or community health workers.

About a third of PCPs reported that the portion of established patients able to obtain a same- or next-day appointment had increased over the previous year.

FQHCs, those with predominately uninsured, Medicaid and mixed payer mixes and suburban practices were more likely to report an increase in new patients. FQHCs, and those with predominately Medicaid payer mix, were more likely to report existing patients who had been uninsured gained insurance, and an increase in the number of patients who hadn't seen a PCP in many years.

Large and FQHC practices were more likely to have hired new clinicians in the past year. Small, non-FQHC, academic and suburban practices and were less likely to report hiring additional staff.

Large and FQHC practices and those with predominantly private or uninsured payer mixes were all more likely to report consulting with care coordinators, case managers and/or community health workers in the past year.

Table 9. Experiences of Practices Since April 2014

To what extent has your practice experienced the following since Healthy Michigan Plan began in April 2014?	To a great extent	To some extent	To a little extent	Not at all	Don't know
Increase in the number of new patients who haven't seen a primary care practitioner in many years (N=2020)	496 (24.6%)	638 (31.6%)	407 (20.1%)	130 (6.4%)	349 (17.3%)
Increase in number of new patients (N=2021)	351 (17.4%)	706 (34.9%)	389 (19.2%)	195 (9.6%)	380 (18.8%)
Existing patients who had been uninsured or self-pay gained insurance (N=2019)	321 (15.9%)	701 (34.7%)	502 (24.9%)	108 (5.3%)	387 (19.2%)
Existing patients changed from other insurance to Healthy Michigan Plan (N=2019)	110 (5.4%)	529 (26.2%)	576 (28.5%)	176 (8.7%)	628 (31.1%)

Table 10. Changes Made to PCP Practices Within the Past Year

Has your practice made any of the following changes in the past year? (check all that apply)	Checked	Not Checked‡
Hired additional clinicians	1120 (53.2%)	984 (46.8%)
Hired additional office staff	1209 (57.5%)	895 (42.5%)
Consulted with care coordinators, case managers, community health workers	1174 (55.8%)	930 (44.2%)
Changed workflow processes for new patients	878 (41.7%)	1226 (58.3%)
Co-located mental health within primary care	325 (15.4%)	1779 (84.6%)

‡288 (13.7%) participants did not check any boxes indicating that their practice had made changes in the previous year. This data was factored into the "Not Checked" category for each potential response.

What proportion of your established patients who request a same- or next-day appointment at your primary practice can get one? (N=2033)[7]

Almost all (>80%)	Most (60-80%)	About half (~50%)	Some (20-40%)	Few (<20%)	Don't know
826 (40.6%)	527 (25.9%)	237 (11.7%)	287 (14.1%)	122 (6.0%)	34 (1.7%)

Over the past year, this proportion has:

Increased	Decreased	Stayed the same	Don't know
682 (34.0%)	316 (15.8%)	883 (44.1%)	123 (6.1%)

Table 11. Multivariable Analysis of Association of Practice Characteristics with Changes Made in PCP Practices Within the Past Year

Has your practice made the following changes in the past year?	Hired additional clinicians	Hired additional office staff	Consulted with care coordinator, case manager, or community health worker	Changed workflow processes for new patients	Co-located mental health within primary care
Practice size:					
Large (ref)	71.8%	67.8%	71.1%	49.4%	19.5%
Small	40.0%§	52.4%§	49.0%§	38.3%§	11.4%§
Practice Type:					
FQHC (ref)	61.8%	68.0%	72.7%	43.0%	31.9%
Non-FQHC	52.3%†	57.5%‡	56.0%§	43.0%	11.5%§
Academic (ref)	48.5%	47.8%	57.1%	38.3%	17.3%
Non-Academic	54.4%	60.7%‡	58.4%	43.8%	14.9%
Hospital-based (ref)	51.6%	56.7%	57.6%	42.0%	12.7%
Not hospital-based	54.6%	60.0%	58.6%	43.5%	16.6%
Predominant payer mix:					
Private (ref)	54.6%	60.7%	65.0%	41.4%	11.5%
Medicare	51.3%	58.9%	54.5%‡	48.5%†	13.1%
Medicaid	53.2%	59.4%	53.0%§	43.4%	19.3%§
Uninsured	39.4%	33.5%	64.3%	39.7%	26.4%
Mixed	57.9%	51.5%†	58.3%†	35.1%	14.2%
Urbanicity:					
Urban (ref)	53.6%	59.9%	58.1%	41.6%	13.4%
Suburban	53.1%	50.9%†	53.3%	45.1%	15.2%
Rural	54.0%	59.1%	62.2%	48.8%†	23.8%§

Table 12. Multivariable Analysis of Association of Practice Characteristics with Experiences of Practices Since April 2014

*To what extent has your practice experienced the following since the Healthy Michigan Plan began in April 2014?***	Increase number of new patients	Existing patients who had been uninsured or self-pay gained insurance	Existing patients changed from other insurance to Healthy Michigan Plan	Increase in the number of new patients who have not seen a primary care practitioner in many years
All	52.3%	50.6%	31.6%	56.2%
Practice size:				
Large (ref)	51.4%	50.0%	28.9%	54.0%
Small	51.7%	51.2%	31.9%	57.8%
Practice Type:				
FQHC (ref)	58.8%	64.9%	32.6%	63.7%
Non-FQHC	50.5%†	48.5%§	30.3%	55.1%†
Academic (ref)	52.9%	53.5%	29.9%	59.2%
Non-Academic	51.3%	50.2%	30.8%	55.7%
Hospital-based (ref)	51.5%	49.5%	28.3%	56.9%
Not hospital-based	51.6%	51.3%	31.7%	55.8%
Predominant payer mix:				
Private (ref)	39.4%	41.5%	22.4%	46.2%
Medicare	43.8%	44.8%	25.0%	50.5%
Medicaid	69.7%§	64.7%§	43.0%§	72.4%§
Uninsured	79.4%†	59.1%	14.4%	61.5%
Mixed	49.9%†	50.4%	29.2%	49.7%
Urbanicity:				
Urban (ref)	51.0%	49.5%	28.6%	56.7%
Suburban	59.8%†	55.6%	33.1%	60.3%
Rural	49.1%	53.7%	38.8%‡	51.3%

*Proportions are the predictive margins from logistic regression models adjusted for each practice characteristic in the table, as well as PCP gender, specialty, ownership of practice, and years in practice.
**Analyses based on sum of those who responded "to a great extent" or "to some extent" for the items below.
All p-values are based on logistic regression analysis
†p<0.05
‡p<.01
§p<0.001

Experiences Caring for Healthy Michigan Plan Beneficiaries

Health Risk Assessments

Key findings:

About four-fifths of PCPs who responded to the survey have completed at least one HRA with a patient; over half of those have completed more than 10.

Most PCPs reported their practice has a process in place for submitting HRAs, but not for identifying patients who needed HRAs completed. Some PCPSs reported having been contacted by a health plan about a patient who needed to complete an HRA. Most don't know whether they or their practice has received a financial incentive for completing HRAs. PCPs reported completing more HRAs if they were located in Northern regions, reported a Medicaid or uninsured

predominant payer mix, payment by capitation or salary, compared to fee-for-service, receiving a financial incentive for completing HRAs, smaller practice size, and co-location of mental health in primary care.

Most PCPs reported that financial incentives for patients and practices had at least a little influence on completing HRAs. According to PCPs, patients' interest in addressing health risks had at least as much influence.

> *We finally get the chance to do prevention because if someone doesn't have insurance and doesn't see a doctor, then there's no way we can do any kind of prevention. We're just kind of dealing with the end-stage results of whatever's been going on and hasn't been treated. So I mean what I've heard people say is "I just want to stay healthy or find out if I'm healthy," and to me that says a lot. We can at least find out where they stand in terms of chronic illness or if they have any or if they are healthy, how can we make sure that they stay that way?*
>
> – Urban physician; Large, hospital-based practice

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. Most found them at least a little useful for getting patients to change behavior.

> *I recently… In the last month, I've signed up two people [for Weight Watchers…two or three people to that, and one of them is really sticking to it. She's already lost 10 pounds.*
>
> – Urban physician; Small, private practice

Approximately how many Health Risk Assessments have you completed with Healthy Michigan Plan patients? (N=2032)

None	1-2	3-10	More than 10
420 (20.7%)	235 (11. 6%)	503 (24.8%)	874 (43.0%)

How often do your Healthy Michigan Plan patients bring in their Health Risk Assessment to complete at their initial office visit? (N=1923)

Almost always	Often	Sometimes	Rarely/never
215 (11.2%)	416 (21.6%)	720 (37.4%)	572 (29.7%)

Table 13. Experience with Health Risk Assessments

Please report your experience with the following:	Yes	No	Don't know
My practice has a process to submit completed HRAs to the patient's Medicaid Health Plan. (N=2041)	1250 (61.2%)	176 (8.6%)	615 (30.1%)
My practice has a process to identify Healthy Michigan Plan patients who need to complete an HRA. (N=2042)	697 (34.1%)	514 (25.2%)	831 (40.7%)
Please report your experience with the following:	Yes	No	Don't know
I/my practice have been contacted by a Medicaid Health Plan about a patient who needs to complete an HRA. (N=2040)	678 (33.2%)	438 (21.5%)	924 (45.3%)
I/my practice have received a financial bonus from a Medicaid Health Plan for helping patients complete HRAs. (N=2033)	367 (18.1%)	339 (16.7%)	1327 (65.3%)

Table 14. Influence on Completing HRA

How much influence do the following have on completion and submission of the Health Risk Assessment?	A great deal	Some	A little	No	Don't know
Financial incentives for patients (N=2046)	549 (26.8%)	486 (23.8%)	155 (7.6%)	294 (14.4%)	562 (27.5%)
Patients' interest in addressing health risks (N=2046)	437 (21.4%)	618 (30.2%)	374 (18.3%)	181 (8.8%)	436 (21.3%)
Financial incentives for practices (N=2044)	374 (18.3%)	502 (24.6%)	258 (12.6%)	353 (17.3%)	557 (27.3%)

Table 15. Usefulness of HRA

For Healthy Michigan Plan patients who have completed their HRA, how useful has this been for each of the following?	Very useful	Somewhat useful	A little useful	Not at all useful
Discussing health risks with patients (N=1828)	601 (32.9%)	733 (40.1%)	311 (17.0%)	183 (10.0%)
Persuading patients to address their most important health risks (N=1828)	484 (26.5%)	712 (38.9%)	415 (22.7%)	217 (11.9%)
Identifying health risks (N=1833)	471 (25.7%)	769 (42.0%)	369 (20.1%)	224 (12.2%)
Documenting patient behavior change goals (N=1826)	409 (22.4%)	716 (39.2%)	449 (24.6%)	252 (13.8%)
Getting patients to change health behaviors (N=1821)	277 (15.2%)	582 (32.0%)	652 (35.8%)	310 (17.0%)

We hypothesized that PCPs who identify a process in place at their practice for identifying patients who need to complete an HRA, and a process in place for submitting an HRA, would report completing more HRAs and that was confirmed. PCPs reporting greater familiarity with healthy behavior incentives and out of pocket expenses faced by patients also reported completing more HRAs.

PCPs were more likely to report their practice had a process for submitting HRAs if they reported:

- Smaller practice size
- They or their practice consulted with care coordinators, case managers, or community health workers
- They or their practice changed workflow processes for new patients
- Co-location of mental health within primary care
- Medicaid or uninsured predominant payer mix
- They or their practice had received an incentive for completing an HRA
- Their practice was located in Northern, Mid-state, or Detroit regions, compared with the Southern region

PCPs were more likely to report a practice to identify patients who needed to complete an HRA if they reported:

- Co-location of mental health within primary care
- Medicaid or uninsured predominant payer mix
- They or their practice had received an incentive for completing an HRA
- Their practice was located in Northern, Mid-state, or Detroit regions, compared with the Southern region

PCPs reported completing more HRAs if they reported:

- Smaller practice size
- Co-location of mental health within primary care
- Medicaid or uninsured predominant payer mix
- Payment by capitation or salary, compared with fee-for-service
- They or their practice had received an incentive for completing an HRA
- Their practice was located in Northern regions of the state compared with other regions

ER Use and Decision Making

Key findings:

The majority of PCPs surveyed felt that they could influence ER utilization trends for their Medicaid patient population and nearly all accepted responsibility for playing a role in reducing non-urgent ER use. Many 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, but were less likely to offer transportation services.

PCPs reported that accessibility to pain medication and evaluations without appointments are major drivers of ER use, along with patients' comfort with accessing ER services.

> *People who work day shift… It's easier for them to go to the ER or something for a minor thing because they don't have to take time off work. That's a big deal.*
>
> – Rural physician; Small, private practice

> *I think that a lot of it is cultural. I don't mean ethnic culture. I mean just culture… There are some people who that is just what they understand, and that is how they operate. They've seen people do it for years, and they've done it and they just feel comfortable with that.*
>
> – Urban physician assistant, FQHC

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.

How much can PCPs influence non-urgent ER use by their patients?

A great deal	Some	A little	Not at all
608 (29.9%)	886(43.6%)	460(22.6%)	80(3.9%)

To what extent do you think it is your responsibility as a PCP to decrease non-urgent ER use?

Major Responsibility	Some Responsibility	Minimal responsibility	No responsibility
740 (36.5%)	1035 (51.0%)	212 (10.4%)	43 (2.1%)

Table 16. PCP Practice Offerings to Avoid Non-Urgent ER Use

Does your practice offer any of the following to help Healthy Michigan Plan patients avoid non-urgent ER use?	Yes	No	Don't know
Walk-in appointments	1336 (66.5%)	607 (30.2%)	67 (3.3%)
Assistance with arranging transportation to appointments	615(30.6%)	1144 (57.0%)	249 (12.4%)
24-hour telephone triage	1492 (74.0%)	438 (21.7%)	85 (4.2%)
Appointments during evenings and weekends	1122(55.8%)	819(40.7%)	71 (3.5%)
Care coordination/social work assistance for	1134 (56.5%)	672 (33.5%)	202(10.1%)

patients with complex problems			

Table 17. Influence on Non-Urgent ER Use

In your opinion, to what extent do the following factors influence non-urgent ER use?	Major influence	Minor influence	Little or no influence
The ER will provide care without an appointment	1679 (82.7%)	273 (13.4%)	78 (3.8%)
Patients believe the ER provides better quality of care	341 (16.8%)	798 (39.4%)	887 (43.8%)
The ER offers quicker access to specialists	614 (30.3%)	723 (35.7%)	691 (34.1%)
Hospitals encourage use of the ER	377 (18.7%)	577 (28.7%)	1058 (52.6%)
The ER offers access to medications for patients with chronic pain	1030 (50.7%)	646 (31.8%)	355 17.5%)
The ER is where patients are used to getting care	1204 (59.5%)	633 (31.3%)	186 (9.2%)

Nearly three-quarters of PCPs felt that they could have "a great deal/some" influence on non-urgent ER use. This finding was associated with **fewer years in practice** and an **increased number of practice changes,** of which **changing workflow for new patients** and **care coordination or social work assistance** for complex problems seemed to be the more significant drivers of that trend.

Nearly nine-tenths of PCPs surveyed felt that they had "a major/some" responsibility to decrease non-urgent ER use. This sense of responsibility was associated with **fewer years in practice**, and a **greater number of practice changes**. More specifically, **having care coordinators/case managers/community health workers** seemed to drive that trend. **Increasing familiarity with specialists or mental health services available for Healthy Michigan Plan patients** was also associated with increased responsibility to decrease non-urgent ER use.

When asked how to reduce non-urgent ER use (open-ended, write-in question), many respondent suggestions addressed **PCP availability** (e.g., increases in the workforce) and changes in **PCP practice** (e.g., extended hours, same-day appointments, improved follow-up). They also recommended gatekeeper strategies, non-primary care options (e.g., urgent care clinics) and greater use of care coordinators and case managers.

Some PCPs suggested **modifications to ER practice**, such as diversion to PCPs, nearby urgent care sites or reducing payment to hospitals/ER practitioners. Others recommended **limiting pain medication** prescriptions in the ER. A few PCPs suggested that the Emergency Medical Treatment and Labor Act (EMTALA) be changed to allow ER practitioners to more readily divert patients to other settings, along with altering the "litigation culture."

Patient educational initiatives were also recommended, for example to clarify "when to seek care," awareness of available alternative services, enhancing patient "coping" and self-management skills, as well as increased transparency on the costs associated with ER care.

Most commonly, PCPs recommended **patient penalties**. Financial penalties were overwhelmingly co-pays, or point-of care payment for ER visits, particularly for visits that do not result in a hospital admission or for patients deemed "high utilizers." Non-financial penalties included having the patient dismissed from the practice panel, or by the insurer.

Others suggested instituting **financial incentives to encourage patients to contact their PCP** prior to seeking ER care, or suggested both increasing out of pocket costs for ER visits while lowering or eliminating costs for visits to primary or urgent care.

Access

Key findings:

PCPs with Healthy Michigan Plan patients who were previously uninsured reported some or great impact on health, health behavior, health care and function for those patients. The greatest impact was reported for control of chronic conditions, early detection of serious illness, and improved medication adherence.

> *One patient…a 64-year-old gentleman who has lived in Michigan or at least lived in the United States for 40 years and had never pursued primary care. Upon receiving health insurance and upon his daughter's recommendation, he pursued care and that was his first…according to him, his first physical evaluation of any sort in 40 years, and he has just….It wasn't a full health maintenance exam. It was a new patient evaluation, and in the time in that initial evaluation he was found to be hypertensive. Upon subsequent labs, you know, ordered on that visit, he was found to be diabetic and upon routine referral at that initial visit for an eye exam, given his hypertension, he was found to have had…hemianopia, which later was determined to be caused by a prior stroke.*
>
> – Urban physician assistant, FQHC

> *Well, I learned a long time ago if the patient doesn't take the medicine, they don't get better. There are a lot of different reasons they don't take it, but the easy one is that if they don't have insurance to cover it and they don't ever pick it up, then they're not going to take it.…if they have financial barriers to getting that done, they're not going to get it done. So I'd say it has a humungous effect.*
>
> – Rural physician, FQHC

PCPs reported that Healthy Michigan Plan patients, 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 (all, p<.001).

> *It can still take up to six months to see a psychiatrist unless you get admitted to the hospital… the ones that work for the hospital that don't take Medicaid or Medicare. And then at discharge, you really aren't going to see the other psychiatrist any quicker. It's kind of a mess. But I don't blame Medicaid expansion for that. It was a mess before then.*
>
> – Urban physician; Small, private practice

> *He has a job that I think he gets paid $9/hour to work, and he's like a super hard-working guy….I think his son has like…is 14 years old with…mental disabilities,…..So now we're talking about a man that needs to get a super expensive medication….Although I feel like I'm a great primary care doc, sometimes, you know, those medications and the follow-up need to probably…There needs to be a team….some teamwork between the rheumatologist and the primary care doctor, and we couldn't get him back in*.
>
> – Urban physician, FQHC

Table 18. Impact of Healthy Michigan Plan on Previously Uninsured Patients

Please think about what has changed for your patients who were previously uninsured and are now covered by the Healthy Michigan Plan. Rate the extent to which you think HMP has had an impact on each of the following for these patients:	Great impact	Some impact	Little impact	No impact	Don't know
Better control of chronic conditions	701 (35%)	789 (39.4%)	139 (6.9%)	30 (1.5%)	346 (17.3%)
Early detection of serious illness	674 (33.7%)	748 (37.4%)	153 (7.6%)	40 (2%)	387 (19.3%)
Improved medication adherence	568 (28.3%)	817 (40.8%)	215 (10.7%)	54 (2.7%)	350 (17.5%)
Improved health behaviors	323 (16.1%)	811 (40.4%)	378 (18.9%)	106 (5.3%)	387 (19.3%)
Better ability to work or attend school	263 (13.1%)	661 (33%)	399 (19.9%)	114 (5.7%)	566 (28.3%)
Improved emotional wellbeing	328 (16.4%)	813 (40.6%)	348 (17.4%)	76 (3.8%)	439 (21.9%)
Improved ability to live independently	239 (11.9%)	593 (29.6%)	438 (21.9%)	141 (7%)	591 (29.5%)

Table 19. Reported Frequency of Access Difficulty – Healthy Michigan Plan Patients

	Often	Sometimes	Rarely	Never	Don't know
How often do Healthy Michigan Plan patients have difficulty accessing the following?					
Specialists **+	644 (31.3%)	729 (35.4%)	137 (6.7%)	19 (.9%)	530 (25.7%)
Medications **+	322 (15.6%)	886 (43.1%)	330 (16.0%)	37 (1.8%)	483 (23.5%)
Mental Health Care **+	711 (34.5%)	523 (25.4%)	193 (9.4%)	35 (1.7%)	597 (29.0%)
Dental/Oral Health Care **+	623 (30.2%)	361 (17.5%)	131 (6.4%)	23 (1.1%)	923 (44.8%)
Treatment for substance use disorder **+	594 (28.9%)	446 (21.7%)	151 (7.3%)	31 (1.5%)	836 (40.6%)
Counseling and support for health behavior change **+	536 (26.0%)	543 (26.4)	218 (10.6%)	55 (2.7%)	708 (34.4%)
How often do your privately insured patients have difficulty accessing the following?					
Specialists **+	71 (3.4%)	650 (31.3%)	1009 (48.6%)	273 (13.2%)	71 (3.4%)
Medications **+	137 (6.6%)	1053 (50.8%)	719 (34.7%)	97 (4.6%)	68 (3.3%)
Mental Health Care **+	367 (17.7%)	893 (43.1%)	551 (26.6%)	125 (6.0%)	136 (6.6%)
Dental/Oral Health Care **+	156 (7.5%)	632 (30.5%)	624 (30.1%)	132 (6.4%)	528 (25.5%)
Treatment for substance use disorder **+	305 (14.7%)	799 (38.6%)	525 (25.4%)	98 (4.7%)	344 (16.6%)
Counseling and support for health behavior change **+	256 (12.4%)	802 (38.7%)	649 (31.3%)	144 (6.9%)	221 (10.7%)

**p<.001 paired t-test comparing don't know responses for HMP and privately insured patients

+p<.001 Wilcoxon signed-rank test comparing responses for HMP and privately insured patients

Discussing Costs with Patients

Given the cost-sharing features of Healthy Michigan Plan, we asked PCPs about conversations they may have had with patients about out-of-pocket costs.

Key findings:

About one-fifth of PCPs reported discussing out-of-pocket costs with a Healthy Michigan Plan patient. The patient was more likely than the PCP to bring up the topic. About half the time the discussion resulted in a change of management plans.

> *They don't have that stigma any longer of not being insured and there's not that barrier between us about them worrying about the money, even though we really never made a big deal of it, but they could feel that. I don't know. I think they feel more worth.*
>
> – Rural physician; Small, private practice

Have you ever discussed out-of-pocket medical costs with a Healthy Michigan Plan patient? (N=1988)

Yes	No
445(22.4%)	1543 (77.6%)

Thinking of the most recent time you discussed out-of-pocket medical expenses with a Healthy Michigan Plan patient, who brought up the topic? (N=440)

The Patient	Me	Somebody Else in the Practice	Other
247 (56.1%)	171 (38.9%)	16 (3.6%)	6 (1.4%)

Thinking of the most recent time you discussed out-of-pocket medical expenses with a Healthy Michigan Plan patient, did the conversation result in a change in the management plan for the patient? (N=440)

Yes	No	Don't remember	Blank
248 (55.7)(56.4%)	131 (29.4)(29.8%)	61 (13.7)(13.9%)	5 (1.1)

We hypothesized that PCPs' likelihood of having cost conversations would vary by their PCPs' personal, professional and practice characteristics:

Table 20. Association of PCP personal, professional and practice characteristics with Frequency of Cost Conversations and Change in Clinical Management due to Cost Conversations

	N (%)	
	Cost Conversations†	Change in Management due to Cost Conversation‡
Personal characteristics		
Gender		
Male	227 (20.5%)*	118 (52.7%)
Female	218 (24.7%)	130 (60.2%)
Race		
White	367 (24.3%)**	204 (56.0%)
Black/African American	14 (15.4%)	8 (57.1%)
Asian/Pacific Islander	25 (12.3%)	14 (60.9%)

Other/More than one	18 (17.5%)	10 (55.6%)

Table 20 (continued). Association of PCP personal, professional and practice characteristics with Frequency of Cost Conversations and Change in Clinical Management due to Cost Conversations

	N (%)	
	Cost Conversations†	Change in Management due to Cost Conversation‡
Ethnicity		
Hispanic/Latino	15 (33.3%)	8 (53.3%)
Not Hispanic/Latino	416 (22.0%)	234 (56.9%)
Professional characteristics		
Provider type		
Physician	337 (20.4%)**	180 (54.1%)
Non-physician (NP or PA)	108 (32.2%)	68 (63.6%)
Specialty		
Family medicine	230 (21.6%)**	119 (52.2%)*
Internal medicine	96 (17.8%)	58 (61.7%)
Other physician specialty	11 (21.6%)	3 (27.3%)
Non-physician (NP or PA)	108 (32.2%)	68 (63.6%)
Years in practice		
<10 years	126 (25.1%)	87 (69.6%)*
10-20 years	134 (20.8%)	72 (54.1%)
>20 years	172 (22.8%)	84 (49.7%)
Prior care for underserved patients		
Yes	284 (25.8%)**	161 (57.1%)
No	151 (18.1%)	82 (55.4%)
Practice characteristics		
Practice size		
Small (≤5 providers)	252 (23.2%)	141 (56.4%)
Large (>5 providers)	181 (22.1%)	103 (57.9%)
FQHC practice		
Yes	94 (31.4%)**	58 (61.7%)
No	347 (20.8%)	188 (54.8%)
University/teaching hospital practice		
Yes	48 (18.3%)	27 (57.5%)
No	388 (23.0%)	217 (56.5%)
Hospital-based practice (non-teaching)		
Yes	134 (22.0%)	82 (62.1%)
No	302 (22.5%)	162 (54.2%)
Payer mix		
Medicaid/Uninsured predominant	177 (26.4%)*	104 (58.8%)
Private/Medicare/Other predominant	232 (20.0%)	128 (55.7%)
Practice characteristics		
Urbanicity		
Urban	312 (20.9%)*	168 (54.4%)*
Suburban	42 (22.7%)	20 (47.6%)
Rural	91 (29.3%)	60 (67.4%)
Total	445 (22.4%)	248 (56.4%)

†Percent among total respondents
‡Percent among those respondents who had a cost conversation
*p<0.05
**p<0.001

In multivariable analyses, **we found that 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. We also found that PCPs who were younger and in rural practices were more likely to report a change in management due to cost conversations with patients.**

Table 21. Multivariable Association of PCP personal, professional and practice characteristics with Likelihood of Cost Conversations, and Likelihood of Change in Clinical Management due to Cost Conversations

	Adjusted Odds Ratio† (95% CI)	
	Odds of Cost Conversation	Odds of Change in Management due to Cost Conversation
Personal characteristics		
Male gender	0.82 (0.63-1.05)	0.91 (0.58-1.41)
Race		
White	[ref]	[ref]
Black/African American	0.52 (0.28-0.96)*	0.92 (0.29-2.93)
Asian/Pacific Islander	0.43 (0.27-0.70)*	1.37 (0.54-3.46)
Other/More than one	0.65 (0.36-1.17)	1.60 (0.52-4.94)
Ethnicity, Hispanic/Latino	2.11 (1.08-4.12)*	0.93 (0.31-2.77)
Professional characteristics		
Provider type, physician (ref=non-physician)	0.71 (0.51-0.99)*	0.96 (0.54-1.73)
Years in practice		
<10 years	[ref]	[ref]
10-20 years	0.81 (0.60-1.09)	0.52 (0.30-0.89)*
>20 years	1.04 (0.77-1.42)	0.47 (0.27-0.82)*
Practice Characteristics		
Payer Mix		
Medicaid/Uninsured predominant	1.31 (1.02-1.69)*	0.95 (0.60-1.51)
Private/Medicare/Other predominant	[ref]	[ref]

Table 21 (continued). Multivariable Association of PCP personal, professional and practice characteristics with Likelihood of Cost Conversations, and Likelihood of Change in Clinical Management due to Cost Conversations

	Adjusted Odds Ratio† (95% CI)	
	Odds of Cost Conversation	Odds of Change in Management due to Cost Conversation
Practice characteristics		
Urbanicity		
Urban	0.82 (0.60-1.11)	0.62 (0.35-1.11)
Suburban	0.70 (0.45-1.11)	0.41 (0.18-0.95)*
Rural	[ref]	[ref]

†Each column represents a different multivariable model
*p<0.05
**p<0.001

Suggestions for Improvement and Impact of the Healthy Michigan Plan

We provided PCPs open-ended opportunities in the survey to provide additional information, including asking them for suggestions to improve and impact of the Healthy Michigan Plan.

Suggestions from PCPs included the following:

- Ways to increase patient responsibility
- Need for increased patient education about health insurance, health behaviors, primary care, appropriate ER use, and medication adherence
- Improve accessibility to and availability of other practitioners (especially specialists including mental health and addiction providers)
- Increase reimbursement to encourage practitioners to participate
- Need for increased provider education and up-to-date information about what is/is not covered, program features, administrative processes, billing for HRA completion, and costs faced by patients
- Need for better coverage for some specific services (e.g., behavioral health, physical therapy)
- Formularies are too limited, lack transparency, and require too much paperwork to obtain authorization for necessary prescription drugs
- Suggested streamlining formularies between Medicaid plans, keeping an updated list of preferred medications and more transparency around medication rejections
- Reduce the complexity of paperwork
- HRA had mixed responses; some saw it as more paperwork or redundant with existing primary care practice, others saw it as worthwhile
- Patient churn on and off and between types of coverage is challenging, especially because patients are often unaware of the change

Impact of the Healthy Michigan Plan:

- Many respondents reported that Healthy Michigan Plan had a positive impact by allowing patients to get much needed care, improving financial stability, providing a sense of dignity, improving mental health, increasing accessibility to care and compliance (especially with medications), helping people to engage in healthy behaviors like quitting smoking, and saving lives
- Some reported a negative impact, saying that it has "opened a flood gate" and there are not enough practitioners, that too many new patients are seeking [pain] medications, and that it even influenced their decision to change careers or retire

IN-DEPTH INTERVIEWS WITH PRIMARY CARE PRACTITIONERS
RESULTS

The results section begins with a brief description and summary table of the characteristics of 19 primary care providers who care for Medicaid/HMP patients, and who participated in in-depth semi-structured telephone interviews between December 2014 and April 2015. The next section provides key findings from those interviews. The main topics appear in boxes, followed by key findings in bold font, a brief summary explanation in regular font, if indicated, and illustrative quotations, in italics.

Characteristics of Primary Care Practitioners Interviewed

Between December 2014 and April 2015, we conducted 19 semi-structured telephone interviews with sixteen physicians (84%) and three non-physician (16%) primary care practitioners. Of the sixteen physicians interviewed, fourteen specialized in family medicine (88%) and two in internal medicine (12%). Five of these providers practiced in the City of Detroit (26%); four practiced in Marquette, Baraga, or Iron County (21%); four practiced in Kent County (21%); three in Midland, Bay, or Saginaw County (16%); and three in Alcona, Alpena, or Oscoda County (16%). PCPs interviewed came from both urban and rural settings, had a range of years in practice, included private practices, hospital-based practices, Federally Qualified Health Centers, rural clinics and free/low-cost clinics.

Table 22. Personal, Professional and Practice Characteristics of PCP Interviewees (N=19)

Personal characteristics		
Gender	N	%
Male	12	63
Female	7	37
Professional characteristics		
Provider type		
Physician	16	84
Non-Physician (NP/PA)	3	16
Specialty		
Family medicine	14	74
Internal medicine	2	11
Nurse practitioner (NP)	1	5
Physician's Assistant (PA)	2	11
Years in practice		
<10 years	5	26
10-20 years	6	32
>20 years	8	42
Practice characteristics		
Presence of non-physician providers in practice		
Yes	16	84
No	3	16
Practice type		
Federally qualified health center (FQHC)	5	26
Large/hospital-based practice	3	16
Free/low-cost clinic	2	11
Practice type		
Small, private practice	7	37
Rural health clinic	2	11

Table 22 (continued). Personal, Professional and Practice Characteristics of PCP Interviewees

Practice characteristics	N	%
Urbanicity		
Urban	12	63
Rural	7	37

Interview results are presented in the following format:
Key Findings
Representative quote(s)

PCP Understanding of Healthy Michigan Plan and its Features

There was significant variation among the PCPs in their understanding of the Healthy Michigan Plan and its features, and therefore their ability to navigate or help patients obtain services.

> *I had a ton of exposure during the development and the implementation of Healthy Michigan because we were trying to get all of our thousands of enrollees [on the county health plan] onto Healthy Michigan. So that would be back when I first heard about it.*
>
> – Urban physician, FQHC

> *Really the only thing I know about the expansion is in early 2014 we started getting a way lot more requests for a new patient visit than we've ever had before. I was just like, "what is going on? We don't get 25 requests for new patients/month." So when it started really climbing, that's when I figured out, "Okay. It's probably due to the Obamacare Medicaid expansion."*
>
> – Urban physician; Small, private practice

> *I'm not aware of a change in how patients can get access to care with regards to transportation since Healthy Michigan has begun. Is there…I don't know…Is there some additional payment available for patients to get to doctors and dentists with Healthy Michigan?*
>
> – Rural physician; Large, hospital-based practice

Many PCPs perceived that the Healthy Michigan Plan cost-sharing requirements may create some misunderstandings among patients but were supportive of patients making financial contributions to their care.

> *The only significant difficulty that I foresee is with the copay issue. I have a concern that patients see this as free for the first six months, and now all of a sudden are confronted with a bill that they don't understand how they got.*
>
> – Urban physician, Free/low-cost clinic

> *We've got it posted in the front where people exit, and I looked at the amounts and thought, "Well, it's pretty fair actually." You know, it's not break the bank copays, but it gets people to think, "Well, yeah, you know, that's less than the cost of a pack of cigarettes."*
>
> – Rural physician, Rural health clinic

> *For the most part, the patients have it all filled out ahead of time … And then the nurse puts in their vitals, their last cholesterol and things like that on that sheet. We look that over and answer a couple of questions on the back.*
>
> – Rural physician, FQHC

The health risk assessments. So, part of my selling point is, "Okay, you're going to get half off on your copays. We've done it. You're set," you know, kind of thing. While that doesn't totally engage them in the process (LAUGHTER), you know, we continue to work on that.

– Urban physician, FQHC

Some of the plans, and I think these might be the Medicare/Medicaid plans, have offered patients like a gift card or something, and that has prompted a lot of patients to really make sure that we fill those forms out, but I don't recall patients really telling me, "Well, I have to pay a low copay because you fill out this form for me."

– Urban physician; Large, hospital-based practice

PCPs found the Healthy Michigan Plan's Health Risk Assessment useful for identifying health risks, disease detection, discussing risks with patients, and setting health goals.

…In the last month, I've signed up two people [for Weight Watchers]…two or three people to that, and one of them is really sticking to it. She's already lost 10 pounds. She really likes it. She's hoping that she can get an extension on it. The other two I haven't really heard back from yet. They just started it, but I personally think that's a great benefit because a lot of people need education on how to properly eat and what a good diet actually is instead of just Popeye's chicken.

– Urban physician; Small, private practice

There were some people that came in with the Healthy Michigan plan and their health risk assessment, although I don't remember anybody that said, "Hey, you have no issues." It was at least, "You need to stop smoking," or "work on your diet or exercise," and "get a flu shot," if not needing management for diabetes or asthma or other things like that.

– Rural physician, FQHC

PCP Decision Making on Acceptance of Medicaid/Healthy Michigan Plan Patients

PCPs described influences on the Medicaid acceptance decision at the provider level (illness burden and psychosocial needs of Medicaid patients), practice level (capacity to see both new and established patients), health system level (availability of specialists and administrative structures), and the policy environment level (reimbursement).

There are days when we'll look at each other and it's like, "I think we've got enough people like that." It's like the person who takes the energy of dealing with six ordinary people.

– Rural physician assistant, Rural health clinic

It has to do with what our capacity is. So looking at schedules, looking at next appointments, are we able to adequately care for the patients that we're currently responsible for.

– Urban physician, Free/low-cost clinic

In terms of referral and specialty care, it is still tricky. So while our ability to care for them has dramatically expanded, our ability to tap into our disjointed healthcare system in terms of specialty care, I think, maybe hasn't changed a whole lot. I think if I lived closer to [medical center] or closer to some other big training centers, that would probably be different. But like private specialists don't really care if they're uninsured or if they have Healthy Michigan.

– Urban physician, FQHC

I think the actual decision as to whether to accept Healthy Michigan patients … is made ... at a higher level... It's at the health system level... I wouldn't really be involved in making that decision, nor would most of my clinic leadership.

– Urban physician; Large, hospital-based practice

I've been hearing about [the Medicaid/Medicare primary care rate bump], but I don't feel like I've paid attention to details..

–Urban physician; Large, hospital-based practice

For our clinic, [reimbursement amount] plays no role in whether we accept more Medicaid patients … we're gonna serve that population and take care of them … We'll do whatever reasonably we can do to get paid for that, but that doesn't make or break the decision whether we're going to do that.

– Urban physician, Free/low-cost clinic

[A]s long as the rural health center plans still pay me adequately, I don't foresee making any changes. If they were to all of a sudden say, "Okay, we're only going to reimburse 40% or 50% of what we used to," that would be enough to put me out of business. So I would think twice about seeing those patients then, but as long as they continue the way they have been for the last six years that I've owned the clinic, I don't see making any changes. It works just fine.

– Rural nurse practitioner, Rural health clinic

Overall Impact of Healthy Michigan Plan on Beneficiaries

Many of the PCPs interviewed had favorable views of the Healthy Michigan Plan and its overall benefits for patients and health systems.

I think…I hate to tell you, but so far everything has been easier. I don't know that I've had anything that's worse. There might be something with drugs as far as ordering stuff, but across the board that's not just Healthy Michigan. I mean they want us to use generics. We're happy to do that. Once in a while, a generic is not going to do it, but I don't think I've had…I can't think of anything that is really negative about it. It's like…People just…I think they're just…They're thankful for it. People aren't overly demanding. They're not coming in acting like, "I deserve this. I want an MRI of my entire body. Nobody's like that, you know? They just…It's like, you know…It's really…It's kind of a nice working together partnership. It's like I usually tell people, "Let's get you caught up." It has become my motto for that. It's like, "We're gonna get you caught up."

– Rural physician assistant, Free/low-cost clinic

Yes. [E]very single day this law has changed my patients' lives…So I get to be in this special niche where I feel like I have a front row seat to the good things that happen as a result of Healthy Michigan….So for example, half the patients I would see pre-Healthy Michigan had essentially nothing in terms of health insurance, right?...I could almost do no labs. I could do very limited health maintenance. I certainly could do no referrals and had a really difficult time getting any type of imaging or substantive workup apart from a physical exam and some in-house kind of labs because people were petrified of the bills that would accumulate.

– Urban physician, FQHC

You know, the Healthy Michigan part has made a big difference…The idea of more people having insurance is good for everyone. Now we'll see long-term in terms of the cost and everything. I know that's a big challenge, but there's no doubt…Like the reimbursement of specifically the hospitals in the city, they're doing much better knowing that a lot of the patients that never had insurance before, do have insurance and that they can get some reimbursement instead of having to, you know, worry about some of the challenges of, you know, unnecessary care.

– Urban physician, FQHC

This program is helping people. It's helping working people, not the totally indigent people who are on disability who are already getting things. These are people…like a parent, a relative of yours that's been working and can't afford the insurance which is ridiculous.

– Urban physician; Small, private practice

Many of these people are working and so they're going to be able to continue working and paying taxes and contributing to society, where if you ignore your diabetes and you ignore your blood pressure, eventually you might end up losing limbs, losing your kidneys. Now you're on disability and, oh look, now you qualify for Medicaid.

– Urban physician; Small, private practice

PCPs noted that their patients were relieved of the stigma and worry associated with not being able to pay for needed care, and able to get needed services they could not previously afford.

They don't have that stigma any longer of not being insured and there's not that barrier between us about them worrying about the money, even though we really never made a big deal of it, but they could feel that. I don't know. I think they feel more worth.

– Rural physician; Small, private practice

Well, I learned a long time ago if the patient doesn't take the medicine, they don't get better. There are a lot of different reasons they don't take it, but the easy one is that if they don't have insurance to cover it and they don't ever pick it up, then they're not going to take it. So I mean I think it plays into every decision where we're ordering a test or recommending a treatment or medication or a referral because if they have financial barriers to getting that done, they're not going to get it done. So I'd say it has a humungous effect.

– Rural physician, FQHC

People are definitely more receptive to the idea of talking about healthcare maintenance items now as opposed to just wanting to deal with the acute issue. It may be because they feel less stressed about the ability to actually be able to get the test done because they understand that it's a…It's a benefit covered under the insurance.

– Urban physician, FQHC

The positive impact of the Healthy Michigan Plan has had a ripple effect in encouraging people to get covered and seek needed care.

Not only are they maybe talking to other people who are then applying and have applied and have gotten the insurance coverage…It just seems like more people are coming, both uninsured and insured because they maybe heard good things about the ease with which they've been able to get care or they've seen how maybe other peoples' circumstances have seemingly changed. I just feel like there's been kind of…a positive ripple effect of people just pursuing care, whether insured or not.

– Urban physician, FQHC

I know a lot of people that didn't have access to healthcare before are getting it now. The ones who were able to get Medicaid that weren't otherwise qualified for it before are starting to get help now, and we're able to find the conditions that they have never been able to get tested for before and treat them for it.

– Urban physician; Small, private practice

Healthy Michigan Plan is Meeting Many Unmet Health Needs

PCPs reported many examples of patients with unmet health care needs, whose health and well-being greatly improved after enrolling in Healthy Michigan Plan. This was particularly true for patients who were previously uninsured and for those with chronic illness (e.g., diabetes, asthma, hypertension) that were often diagnosed after enrolling in Healthy Michigan Plan.

Upon receiving health insurance and upon his daughter's recommendation, he [patient in his early 60s] pursued care and that was his first …according to him, his first physical evaluation of any sort in 40 years, and he has just…It wasn't a full health maintenance exam. It was a new patient evaluation, and in the time in that initial evaluation he was found to be hypertensive. Upon subsequent labs, you know, ordered on that visit, he was found to be diabetic and upon routine referral at that initial visit for an eye exam, given his hypertension, he was found to have had…hemianopia, which later was determined to be caused by a prior stroke.

– Urban physician, FQHC

A lot of neglected… A lot of chronic diseases that have been neglected. Because before, what would suddenly make that person decide to come in and see the doctor and pay out of pocket if they hadn't been doing that for three years? There's nothing to make them come in and take care of it. They wanted to, but they couldn't afford it. They weren't even seeing anybody. Now suddenly, there's this opportunity to get health insurance or to get Medicaid, and so now they are coming to the doctor because they know that they need to get their diabetes under control.

– Urban physician; Small, private practice

*She's only 33 and I had five diagnoses at the end….. it's even double that if you're 70. They waited all this time. They haven't had a doctor; you have to, at least, touch on everything the first time you see them… you have to know what's wrong with them***.**

-Urban physician; Small, private practice

So yesterday I had a patient… The guy's got totally uncontrolled diabetes….He's like 53. He hadn't been to a doctor, he thinks, since his twenties. The only reason he came in . . .because he got this new insurance. He had his little health risk assessment. He's like, "Alright. I'm going in."

-Urban physician, FQHC

PCPs reported an increased ability to provide preventive services and tests that had previously been an unmet need.

I know a lot of people that didn't have access to healthcare before are getting it now. The ones who were able to get Medicaid that weren't otherwise qualified for it before are starting to get help now, and we're able to find the conditions that they have never been able to get tested for before and treat them for it.

- Urban physician; Small, private practice

I think on one level, it's a sense of relief that they don't have to go to the ER for urgent things, that they can come to us first if it's something that we can handle, and then just having a chance to confirm that either they're healthy or that there are issues that they need to work on. I guess from my perspective is that we finally get the chance to do prevention because if someone doesn't have insurance and doesn't see a doctor, then there's no way we can do any kind of prevention. We're just kind of dealing with the end-stage results of whatever's been going on and hasn't been treated. So I mean what I've heard people say is "I just want to stay healthy or find out if I'm healthy," and to me that says a lot.

– Urban physician; Large, hospital-based practice

We're taking care of the comorbidities before they happen. In the long run, the program is going to pay for itself. We're identifying diabetics. Hypertension is rampant.

-Urban physician; Small, private practice

Coverage for dental services, prescription drugs, and mental health services were specifically noted as unmet needs being addressed by the Healthy Michigan Plan. Access to these services were described "as a lifesaver." PCPs reported increased ability to connect people to needed services, though challenges remain, especially in the area of mental health.

I refer a lot for mental health services and counseling, and a lot of these people just don't know about the services out there. So being able to connect people with the appropriate care that they need or could use in the future, I think, has been really valuable.

– Urban physician; Large, hospital-based practice

For thirteen years, getting dental has been like pulling teeth… It's been very difficult for our patient population. Dental is a huge issue. I would say well over half of our folks have significant dental problems that haven't been cared for in years.

– Urban physician; Free/low-cost clinic

[W]*hile it doesn't allow them to access say whatever specialist they want, by all means, they have access to things that I think are appropriate for them, i.e. this particular study, that particular lab, this particular workup…In addition to that, they also now have access to a pharmaceutical formulary which is, you know, light years better than what they had when they were looking at, "Okay, what's the $4 Wal-Mart offer me?"*

– Urban physician; FQHC

PCPs reported challenges finding local specialists for referrals. In some cases, this was because of a general shortage of specialists in the area, but often it was noted that there are too few practitioners willing to accept patients with Healthy Michigan Plan/Medicaid coverage. Some PCPs also reported that their patients had difficulty accessing counseling services for healthy behavior change.

For the most part. It can still take up to six months to see a psychiatrist unless you get admitted to the hospital. But then if you get admitted to the hospital, the private psychiatrist will see you….the ones that work for the hospital that don't take Medicaid or Medicare. And then at discharge, you really aren't going to see the other psychiatrist any quicker. It's kind of a mess. But I don't blame Medicaid expansion for that. It was a mess before then.

– Urban physician; Small, private practice

Dermatology is a huge issue…Yeah, in this county…In this county we have a huge problem because we have no place to send our Medicaid patients. And obviously they can't afford to do it out of pocket.

– Rural nurse practitioner; Rural health center

The specialty offices that don't accept Medicaid, don't accept Healthy Michigan plan Medicaid either…So, I mean, I don't think that's changed with the Healthy Michigan plan.

– Urban physician; Free/low-cost clinic

[I]n terms of referral and specialty care, it is still tricky. So while our ability to care for them has dramatically expanded, our ability to tap into our disjointed healthcare system in terms of specialty care, I think, maybe hasn't changed a whole lot. I think if I lived closer to [medical center] or closer to some other big training centers, that would probably be different. But like private specialists don't really care if they're uninsured or if they have Healthy Michigan.

– Urban physician; FQHC

We have no dermatologists in this county. So when I try to refer one of my HMP patients to a dermatologist [in another county], there are no offices that will take [healthplan] patients.

-Rural nurse practitioner; Rural health center

We have a Medicaid dental clinic here, but it's a long wait to get in. …up here no one accepts Medicaid … They kind of just pull people's teeth out and not do the usual restorative work.

-Rural physician; Small, private-practice

We do have. . . a smoking cessation program in our health system, but they don't take Medicaid patients. ... we do have a weight management program, but they don't take Medicaid.

-Urban physician; Large, hospital-based practice

PCPs noted that connecting patients to mental health services remains particularly challenging.

[W]e've got community mental health services available but they don't have enough money and they're too busy, and the patients suffer because of that. And Medicaid helps that to a modest degree, but there's still not enough providers and still not enough, I guess, reimbursement from Medicaid.

– Urban physician; Free/low-cost clinic

In our area, due to the limited resources, I think it is difficult that there's not enough psychiatrists and counselors around....and there doesn't seem to be any stability with respect to who is a practicing psychiatrist within the community, meaning individuals might have a psychiatrist for a couple of months, and then somebody else new comes on board. So I do think it's an area that is not being handled well.

– Rural physician; Small, private practice

PCPs noted that barriers to care, such as transportation, are reduced but remain.

You've solved the insurance problem, but then there are certain other parts of their life that makes it hard for them to deal with the healthcare system, and that is they may not follow up with appointments, they may not go to appointments, they may not be so good at communicating their history, they may not follow through with getting medications even if they have insurance. It's kind of like a whole host of behavioral parts to it. So, solving the insurance issue is a really important part, but then really many of these people almost like need a case manager to help make sure all the other little pieces come together because just leaving them on their own, they won't necessarily get the care.

– Urban physician; Small, private practice

Transportation has always been an issue with our patients. We've provided transportation for our uninsured patients, and we know that about one-third of our patients wouldn't have been able to get here or to their specialty appointments without that. Now fortunately [Healthy Michigan Plan health plan] does provide transportation. There's two barriers to their transportation. One is the amount of time patients have to call ahead to get it, which is understandable. But for our patients, sometimes difficult. And the fact that it tends to run late. In some circumstances, it's not a real predictable timeframe. So that's been a challenge. I know I've had one patient who's been so frustrated. We referred her to counseling. She made two counselling appointments, and transportation didn't pick her up for either.

– Urban physician; Free/low-cost clinic

That's a great question. That's a great question. Transportation is huge. That's a huge, huge issue that sort of is under the radar for most people. That's a huge issue for my patients. People just don't have cars, and they don't have family or friends with cars. If you don't have insurance, you are stuck. I just had a guy…I had two guys yesterday who I hadn't seen in, I don't know, maybe six months. Both of them. "I just can't get in to see you, doc." "I can't get in to see you." I said to them yesterday, "Well how did you get in to see me today?" "Oh, I just called my insurance." Fantastic!

– Rural physician; FQHC

ER Use

PCPs discussed a number of factors influencing high rates of ER use including culture or habit, sense of urgency for care and need for afterhours care. Some PCPs noted that some Healthy Michigan Plan beneficiaries use the ER because it's convenient. Even for those practices with extended hours, their office may not be open at convenient time for patients, and their schedules may not coincide with when health issues arise.

I mean those people who use the ER…sometimes it's just the culture. That's just how they've been …they…I don't want to say "conditioned," but maybe long-term circumstances or habit or what have you…They just tend to utilize the ER as a means of…almost like a secondary or a primary care clinic.

– Urban physician assistant, FQHC

You know, to some degree, it is convenience. You know, we have a few days where we're open to 6:00 or 7:00, but not every day, and we're not open on Saturdays or Sundays…People who work day shift… It's easier for them to go to the ER or something for a minor thing because they don't have to take time off work. That's a big deal.

– Rural physician; Small, private practice

Yeah, I know what you mean. The question is it somehow more convenient or timely or something to go to the ER or come to the office? And I think sometimes people have that perception, but they always wait for 3 hours in the ER. They're never in and out in 20 minutes, you know.

– Urban physician, FQHC

The families up here that I know have always done that do it because…Like the one lady, for example, might be sitting and watching television at 6:00, and she gets a little twinge in her abdomen. Because she has an anxiety condition, she talks herself into the fact that she's got colon cancer, and she goes to the ER in about a 20-minute time frame.

– Rural nurse practitioner, Rural health clinic

PCPs also discussed ways to reduce ER use such as educating patients on appropriate use, providing other sources of afterhours care (e.g., urgent care), and imposing a financial penalization or higher cost sharing for inappropriate ER use.

You know, I mean I think it still comes to education and availability…continuing to try to educate patients on, you know, why it is important to kind of…appropriately pursue care. So, you know, kind of having a conversation with patients about…why it's in their best interest to come to their primary care office, though it may take a little longer to do so than to go to the ER, and also making sure that we have available appointments so a patient doesn't feel, you know, as if they have no other alternative. So, you know, having office hours that…evening office hours…having a fair amount of those and getting appropriate…appropriately trained triage staff to be able to adequately address patients' acute care needs and questions when they call in.

– Urban Physician Assistant, FQHC

If you go to the ER and you're not admitted to the hospital, you're charged a significant amount…That tends to deter people, and I think that's the only way things are going to change and whether the ER's have a triage person that can determine this is an ER-appropriate problem and send people elsewhere, but I think it…There has to be some financial consequences …Even if it's a small amount. I know you're dealing with economically disadvantaged people, but even a small amount of money tends to sometimes affect behaviors.

– Rural physician; Small, private practice

I think certainly accessibility because I'm sure part of it has to do with accessibility. So possibly providing extended hours, weekend hours…Clearly the health system does have access, extended hours, weekend hours…They're not really well-located for MY patients in the sense that my patients live in downtown [city], are in the [city] area specifically, and they don't necessarily have access to some of these facilities which tend to be near [city], but not necessarily in [city]. So I think that maybe setting up that kind of an urgent care close to the hospital, right here. If it means co-locating it next to the ER so we can send the urgent care-type patients there; that would be certainly something that we can do.

– Urban physician; Large, hospital-based practice

PCPs noted that the hospitals play a role in rates of ER use.

The hospital is not incentivized to send those people away because they're paying customers. They want to support having a busy ER. There are some places that actively deter people from going to the emergency room where they'll do a medical screen and exam and say, "No. Your problem is not acute. You don't need to be seen in the emergency room today. Go back and make an appointment with your primary care doctor."

– Rural physician, FQHC

Actually I think it's 29 [minutes] right now, and then in mid and Northern Michigan, there are… billboards that tell you exactly what your wait time is right now in their ER. So it will say 8 minutes or 10 minutes or whatever their wait time is.

– Urban physician, Free/low-cost clinic

Impact of Healthy Michigan Plan on PCP Practice

PCPs reported utilizing a variety of practice innovations including co-locating mental health care, case management, community health workers, same-day appointments, extended hours and use of midlevel practitioners.

At our office, we have two behavioral health specialists. I think they're both MSWs. So they do counseling and group therapy and so our clinic is kind of special. We're able to route a lot of people to them.

– Rural physician, FQHC

I think our office has become much more accommodating with phone calls for same-day appointments. So we've done a better job at looking at schedules, at planning for this… for these kinds of patients that fall into the acute care category. So we're able to do that a lot more readily. We're a large clinic than we used to be. We've got more providers, and that certainly makes a difference also. So there's multiple reasons for it.

– Rural physician; Large, hospital-based practice

Yeah. We have a number of people working as caseworkers now. That's been a big change in the last year. I should probably mention that…We're part of MIPIC, and I guess with the start of My Pick, we got financial support for a number of caseworkers, and then we sort of steal their time for basically

any insurance that needs some management. We're having a lot of…We're getting a lot of help with case managers for people coming out of hospitals to coordinate care there.

– Rural physician, FQHC

So, one of the pieces that we are developing now is using our navigator to reach out to those patients. As we see new people assigned to us and we don't see an appointment on the schedule, reaching out to them, helping them get into care.

– Urban physician, Free/low-cost clinic

That [co-location] has been very helpful especially to our Medicaid patients …we can get those people in quickly and get treatment, which was otherwise very difficult. …now it's less of a barrier for them to get behavioral health services.

-Rural physician; Small, private practice

PCPs noted an increase in administrative burden as a result of the Healthy Michigan Plan because of increased paperwork and need for more communication. PCPs reported that pre-authorizations, multiple formularies, patient churn in and out of insurance and (sometimes) HRAs presented challenges for their practice.

Yes. Much more work for the staff. Not much more, but, of course, it's [HRA] more work for the staff because of the long requirements and things have to be dated the same day as this thing or that thing. Yeah, it's much more of a pain in the neck for them. And I understand that we get some $25…some malarkey for doing it, and the patient gets some discount on something.

– Urban physician, Free/low-cost clinic

But this insurance wouldn't let us order a stress test. They felt that we needed to do a separate stress ECG and then order a separate 2D echo. So that was one scenario where, you know, I actually had to do a physician-to-physician contact because I didn't think it made sense, but that was the only way they would cover it. So I had to order two separate tests where one could have probably given me the answer I was seeking.

– Urban physician; Large, hospital-based practice

For me, the bigger issue, I think, for us is that, you know, there are certain insurances that we do accept even in the Healthy Michigan plan, and some we do and some we don't. So what will end up happening is maybe they had an appointment to see me, and they come in and then, of course, we don't accept that one. So then they…I would say for the most part they're not too happy about that. Then they'll get sent to talk with one of the insurance people, and they'll find a way to fix it if it is fixable.

– Urban physician, FQHC

So we've also had an influx of or an increase in the number of medical prior authorizations that have created basically a headache for us because there's no standardization amongst the Medicaid plans…Yeah, and they're flip-flopping fairly regularly with respect to…This drug might be covered for a period of time, and then a short while later, they don't cover that drug. So we've got to go through the process for another medication. That requires more staff time. It doesn't necessarily benefit patient care.

– Rural physician; Small, private practice

PCPs noted their practices were considerably busier since implementation of the Healthy Michigan Plan.

So our plan is to continue accepting more…We're open to those three Medicaids right now… straight Medicaid, Meridian and Priority. So we see new patients every day with those, and that's…That's

what our game plan is at least for the time being. We're not…We're not overwhelmed enough with the patients that we can't do that.

– Urban physician, Free/low-cost clinic

Some PCPs hired new staff to increase their capacity to handle the increase in demand.

So we had to hire…create a position for somebody to basically find out who takes Medicaid and arrange for those referrals, as well as process those prior authorizations for various tests. So it did require us to hire somebody or create a position for somebody to handle that…So, nonetheless that's an increase cost to us.

– Rural physician; Small, private practice

We're going to be able to hire a full-time social worker…. if we didn't have Medicaid expansion, there's no way we'd have the dollars to do that.

- Urban physician, FQHC

For some PCPs, wait times also increased.

We accept all comers. Period. Doors are open. Come on in. But I have to add a comment to that or a clarification…a qualification to that…There are so many patients now that are in the system that even for routine follow-up stuff, we can't get them in." So what's happened is…The results of this great expansion and people now trying to come get primary care…She [site manager] *said to me this week, "We'll probably have to close your panel, although I don't think we're allowed to close your panel per FQHC guidelines."*

– Urban physician, FQHC

Some PCPs noted that the Healthy Michigan Plan has an impact on their relationships with patients.

So I do think by requiring one to come in…it [an initial appointment] helps to facilitate the beginning, hopefully in most cases, of a relationship between the provider and the patient. It helps assign…It helps align them together hopefully with some mutual goals in the interest of the patient. So, yes, I do think bringing them in and kind of making that a requirement is helpful. I think it's just helpful because it works to establish that relationship.

– Urban physician, FQHC

Part of my concern is it's going to decrease trust. From the standpoint that before our patients were getting free care, [so] they knew that our only incentive for caring for them was their best interest. That incentive hasn't changed. The revenue that we get from Healthy Michigan is great, but…it's not even enough to pay our staff. It's not going to change what the providers have in any way, but that may not be the perception our patients have. Especially as people talk about, you know, "Well, if your doctor says no to this, it's because they get more money if they don't refer." And before when we

didn't refer, patients understood it was either we couldn't get it or it wasn't in their best interest or whatever.

– Urban physician, Free/low-cost clinic

Some PCPs noted that reimbursement rates are an important consideration depending on the type/structure of their practice.

Well, we're a rural health clinic. So that means we're reimbursed for Medicaid patients. We get a flat amount for them irrespective of the complexity of the visit, and it's more favorable than if we were just taking straight Medicaid. So right now we can afford to see Medicaid patients as being part of

the rural health clinic initiative, but if we weren't and the reimbursement for primary care reverted back to the old way of doing things with Medicaid, we would probably have to change how we handle things with respect to taking new Medicaid patients and how many Medicaid patients we take. So I know the current Medicaid reimbursement scheme is par with Medicare in Michigan.

– Rural physician; Rural health clinic

You're talking about government reimbursing at the Medicare rates. That was 2013 and 2014 that did that…So far they haven't approved to do that in 2015 or 2016, and the rates that they pay for…the plans pay for Medicaid patients are substandard…you know, are markedly below any other insurances in this country. So they definitely are underpaying primary care providers. There's no two ways about that.

– Urban physician; Small, private practice

So, it hasn't affected our practice because as an FQHC we're reimbursed differently than . . . Medicaid reimburses a hospital practice or a private practice. Because we have to see all comers including all uninsured, and we can't cherry pick…I shouldn't say "cherry pick." We can't self-select what patients we see and won't see…We get "x" dollars for every Medicaid visits. We get "x" dollars for every whatever, with the assumption that we'll see everybody.

– Urban physician, FQHC

It's not affected our practice directly, but it seems that especially in a couple of the counties around us, that the number of private providers who are accepting Medicaid has actually, if anything, gone down, and so what we're finding are patients coming out of other practices, especially private practices with no cost base reimbursement, coming to us or asking to get in line to be with us.

– Rural physician, FQHC

References

[1] Patton MQ. *How to use qualitative methods in evaluation*. Newbury Park, CA: Sage, 1987.
[2] Strauss A and Corbin J. *Basics of Qualitative Research: Grounded theory procedures and techniques* (3rd ed.). Newbury Park, CA: Sage (2008).
[3] Friedberg MW, Chen PG, Van Busum, KR, et al. "Factors affecting physician professional satisfaction and their implications for patient care, health systems, and health policy." Santa Monica, CA: RAND Corporation, 2013. http://www.rand.org/pubs/research_reports/RR439.html
[4] U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics. "National Ambulatory Medical Care Survey 2014 Panel." 2014. http://www.cdc.gov/nchs/data/ahcd/2014_NAMCS_Physician_Induction_Sample_Card.pdf
[5] Newman SE, Udow-Phillips M, and Anderson KC. "2012 Michigan Physician Survey." Ann Arbor, MI: Center for Healthcare Research and Transformation, 2010.
[6] SteelFisher GK, Blendon RJ, Sussman T, et al. "Physicians' views of the Massachusetts health care reform law — a poll." N Engl J Med 2009;361:e39. DOI: 10.1056/NEJMp0909851.
[7] The Commonwealth Fund. "2012 International Survey of Primary Care Doctors." 2012. http://www.commonwealthfund.org/~/media/files/surveys/2012/41083-ihp-2012-questionnaire21712-finalus-3contact-1.pdf
[8] Niess M. "Survey of Specialty Physicians."

Report on the 2016 Healthy Michigan Voices Enrollee Survey

June 21, 2017

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EXECUTIVE SUMMARY

The University of Michigan Institute for Healthcare Policy & Innovation (IHPI) is conducting the evaluation of the Healthy Michigan Plan (HMP) as required by the Centers for Medicare & Medicaid Services (CMS) through a contract with the Michigan Department of Health and Human Services (MDHHS). This report presents selected findings from the responses to the Healthy Michigan Voices (HMV) enrollee survey conducted January-October 2016.

Methods

Sampling for the Healthy Michigan Voices enrollee survey was performed monthly, beginning in January 2016. At time of sample selection, beneficiaries must have had:

- 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 federal poverty level (FPL) fields in the Data Warehouse
- Michigan address
- Preferred language of English, Arabic, or Spanish

Exclusion in one month of sampling did NOT prohibit inclusion in a subsequent month.

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 participated in the HMV survey, and the weighted response rate for the 2016 Healthy Michigan Voices enrollee survey was 53.7%.

Many items on the survey were drawn from large national surveys. When established measures were not available, items specific to HMP (e.g., items about Health Risk Assessments, understanding of HMP) were developed based on findings from 67 semi-structured interviews with HMP beneficiaries conducted by the evaluation team. 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 calculated 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.

Results

Insurance Coverage Prior to HMP

- 57.9% did not have insurance at any time in the year before enrolling in HMP.

Current Health Status/Change in Health with HMP

- 47.8% said their physical health had gotten better since enrolling in HMP.
- 38.2% said their mental and emotional health had gotten better since enrolling in HMP.
- 39.5% said their dental health had gotten better since enrolling in HMP.

Chronic Health Conditions

- 69.2% reported they had a chronic health condition, with 60.8% reporting at least one physical health condition and 32.1% reporting at least one mental health condition.
- 30.6% reported that they had a chronic health condition that was newly diagnosed since enrolling in HMP.
- 18.4% reported they had a functional limitation.

Health Risk Assessment (HRA)

- 49.3% self-reported completing an HRA. While higher than the completion rate in the MDHHS Data Warehouse, this may be due to enrollees completing the patient portion only, recall bias, or misidentifying completion of other forms as completing the HRA.
- 45.9% of those who said they completed an HRA did so because a primary care provider (PCP) suggested it; 33% did so because they received the form in the mail; 12.6% completed it over the phone at time of enrollment.
- Only 0.1% said they completed the HRA to save money on copays and contributions.
- Most of those who reported completing the HRA felt it was valuable for improving their health (83.7%) and was helpful for their PCP to understand their health needs (89.7%). 80.7% of those who said they completed an HRA chose to work on a health behavior.

Health Behaviors and Health Education

- 37.7% of beneficiaries reported smoking or using tobacco in the last 30 days, and 75.2% of these people said they wanted to quit. Of these, 90.7% were working on cutting back or quitting right now.

Regular Source of Care and Primary Care Utilization Prior to HMP

- 73.8% said that in the year before enrolling in HMP they had a place they usually went for health care. Of those, 16.8% said that place was an urgent care center and 16.2% reported the emergency room (ER), while 65.1% reported a doctor's office or clinic.
- 20.6% had not had a primary care visit in five or more years before enrolling in HMP.

Regular Source of Care and Primary Care Utilization with HMP

- 92.2% reported that in the year since enrolling in HMP they had a place they usually went for health care. Of those, 5.8% said that place was an urgent care center and 1.7% reported the emergency room, while 75.2% reported a doctor's office or clinic.
- 85.2% of those who reported having a PCP had a visit with their PCP in the last year. 83.9% of these said it was very easy or easy to get an appointment with their PCP.
- Beneficiaries who were older, white, female, reported worse health, and had any chronic condition were more likely than other beneficiaries to have seen a PCP in the past 12 months.
- Those who reported seeing a PCP in the preceding 12 months were more likely to report improved access to preventive care, completing an HRA, being counseled about health behaviors and being diagnosed with a chronic condition since enrollment.

Foregone Care Prior to and with HMP

- 33% of beneficiaries reported not getting care they needed in the year before enrollment in HMP; 77.5% attributed this to cost concerns. In the year preceding the survey (i.e., since enrolling in HMP), 15.6% reported foregone care; 25.4% attributed that to cost concerns.
- 83.3% agreed or strongly agreed that without HMP they would not be able to go to a doctor.

Changes in Access to Care

- Few beneficiaries (less than 5%) reported their ability to access primary care, specialty care, mental health care, substance use treatment, prescription medication, cancer screening, prevention of health problems and birth control/family planning had worsened since enrolling in HMP; 6.2% reported access to dental care worsened.

Emergency Room Use with HMP

- 28.0% of those who visited the ER in the past year said they called their usual provider's office first. 64% said they were more likely to contact their usual doctor's office before going to the ER than before they had HMP.
- Respondents who used the ER were more likely than those who did not use the ER to report their health as fair/poor (40.1% vs. 23.2%) and to report chronic physical or mental health conditions (79.4% vs. 62.8%).

Impact of HMP on Employment, Education and Ability to Work

- 48.9% reported they were employed/self-employed, 27.6% were out of work, 11.3% were unable to work, and 2.5% were retired.
- HMP enrollees were more likely to be employed if their health status was excellent, very good, or good vs. fair or poor (56.1% vs. 32.3%) or if they had no chronic conditions (59.8% vs. 44.1%).

- Compared to employed enrollees, enrollees who were out of work or unable to work were more likely to be older, male, lower income, veterans, in fair/poor health, and with chronic physical or mental health conditions or limitations.
- Employed respondents missed a mean of 7.2 work days in the past year due to illness. 68.4% said this was the same as before HMP, 17.2% said less and 12.3% said more.
- Among employed respondents, over two-thirds (69.4%) reported that getting HMP insurance helped them to do a better job at work.
- For the 27.6% of respondents who were out of work, 54.5% strongly agreed/agreed that HMP made them better able to look for a job.
- For the 12.8% of respondents who had changed jobs in the past 12 months, 36.9% strongly agreed/agreed that having HMP insurance helped them get a better job.

Knowledge and Understanding of HMP Coverage

- The majority of respondents knew that HMP covers routine dental visits (77.2%), eyeglasses (60.4%), and counseling for mental or emotional problems (56%). Only one-fifth (21.2%) knew that HMP covers name brand as well as generic medications.

Challenges Using HMP Coverage

- Few (15.5%) survey 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.

Out-of-Pocket Healthcare Spending Prior to and with HMP

- 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% said that since enrolling in HMP their problems paying medical bills got better.

Perspectives on Cost-Sharing

- 87.6% strongly agreed or agreed that the amount they pay overall for HMP seems fair.
- 88.8% strongly agreed or agreed that the amount they pay for HMP is affordable.

Knowledge and Understanding of HMP Cost-Sharing Requirements

- Only 26.4% were aware that contributions are charged monthly regardless of health care use. Just 14.4% of respondents were aware that they could not be disenrolled from HMP for not paying their bill. Only 28.1% were aware that they could get a reduction in the amount they have to pay if they complete an HRA. 75.6% of respondents were aware that some kinds of visits, tests, and medicines have no copays.

MI Health Account Statement

- 68.2% said they received a MI Health Account statement. 88.3% strongly agreed/agreed they carefully review each statement to see how much they owe. 88.4% strongly agreed/agreed the statements help them be more aware of the cost of health care.

Information Seeking Behaviors

- 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.

Perceived Discrimination

- Most respondents did not report feeling judged or treated unfairly by medical staff in the past 12 months because of their race or ethnic background (96.4%) or because of how well they spoke English (97.4%); but 11.6% of respondents felt judged or treated unfairly by medical staff in the past 12 months because of their ability to pay for care or the type of health coverage they had.

Social Interactions

- 67.6% of respondents said that they get together socially with friends or relatives who live outside their home at least once a week; 79.8% said that they amount they engage in social interactions is about the same as before they enrolled in HMP.

Reproductive Health

- Among reproductive age female respondents, 38.4% did not know whether there was a change in their access to family planning services, while 35.5% reported better access and 24.8% reported about the same access. Those with inconsistent health insurance or uninsurance prior to HMP were significantly more likely to report improved access.

Impact on Those with Chronic Health Conditions

- Prior to HMP, 77.2% of those with a chronic physical or mental health condition had a regular source of care, 64.7% of whom said that source of care was a doctor's office or clinic. After HMP, 95.2% had a regular source of care, and 93.1% said it was a doctor's office or clinic.
- In the year prior to HMP enrollment, 58.3% of those with a chronic physical or mental health condition did not have insurance, only 42.1% had seen a PCP, and 51.7% had problems paying medical bills.
- Since HMP enrollment, 89.6% of those with a chronic physical or mental health condition reported seeing a PCP, 64.6% reported their ability to fill prescriptions improved, and 86.3% reported their ability to pay medical bills had improved.
- Respondents with a chronic physical or mental health condition reported overall improvements in their physical (51.9%) and mental health (42.4%) after enrolling in HMP; 7.5% and 6.1% reported their physical and mental health status had worsened.

Impact on Those with Chronic Mood Disorder and Substance Use Disorder

- Since enrollment in HMP, 48.9% of respondents with a self-reported mood disorder (MD) and 50.5% with a self-reported substance use disorder (SUD) reported that their mental health had gotten better.
- Most respondents with a MD reported that having HMP has led to a better life (91.9% strongly agreed/agreed) as did respondents with a SUD (95.8% strongly agreed/agreed).

- Prior to HMP, 37% of respondents who self-reported a SUD used the emergency room as a regular source of care; after at least one year of HMP the emergency room as a regular source of care dropped to 3.6%.

Conclusions

- More than half of respondents, including more than half of those with chronic conditions, did not have insurance at any time in the year before enrolling in HMP. Foregone care, usually due to cost, lessened considerably after enrollment. Most respondents said that without HMP they would not be able to go to the doctor. **HMP does not appear to have replaced employment-based insurance and has greatly improved access to care for underserved persons.**
- The percentage of enrollees who had a place they usually went for health care increased with HMP to over 90%, and naming the ER as a regular source of care declined significantly after enrolling in HMP (from 16.2% to 1.7%). **An emphasis on primary care and disease prevention shifts care-seeking away from acute care settings.**
- A significant majority said since enrolling in HMP their problems paying medical bills had gotten better. Most respondents agreed that **the amount they pay overall for HMP seems fair and is affordable, although monthly contributions affected perceptions of affordability**.
- There were some areas in which **beneficiary understanding of coverage** (e.g., dental, vision and family planning) **and cost-sharing requirements needs to improve**.
- About half of respondents reported completing an HRA, bearing in mind the limits to self-reported data. **Most respondents addressed health risks for reasons other than financial incentives.**
- HMP enrollees with mood disorder or substance use disorder reported improved health, improved access to services and treatment, and were less likely to name the emergency room or urgent care as a regular source of care. Those with substance use disorder still report using the emergency room more often than those with other chronic illnesses.
- Many HMP enrollees reported improved functioning, ability to work, and job seeking after obtaining health insurance through Medicaid expansion. **HMP may help its beneficiaries maintain or obtain employment.**
- Chronic health conditions were common among enrollees in Michigan's Medicaid expansion program, even though most enrollees were under 50 years old. Almost half of these conditions were newly diagnosed after enrolling in HMP. **Enrollees with chronic conditions reported improved access to care and medication, all crucial to successfully managing these conditions and avoiding future disabling complications.** Despite the relatively short term of their enrollment in HMP, almost half of respondents said their physical health had gotten better and nearly 40% said their emotional and mental health and dental health had gotten better since enrolling in HMP, **attesting to the health impact of Medicaid expansion**.

INTRODUCTION

The University of Michigan Institute for Healthcare Policy & Innovation (IHPI) is conducting the evaluation of the Healthy Michigan Plan (HMP) as required by the Centers for Medicare & Medicaid Services (CMS) through a contract with the Michigan Department of Health and Human Services (MDHHS). This report presents findings from responses of the Healthy Michigan Voices (HMV) enrollee survey. From January through October 2016, 4,090 beneficiaries completed the Heathy Michigan Voices survey of current HMP beneficiaries. This is an update to the interim report submitted to CMS in September 2016. Findings from the 2016 Healthy Michigan Voices survey of those who have disenrolled from the Healthy Michigan Plan will be available in late 2017.

METHODS

Sampling for the Healthy Michigan Voices survey was performed monthly, beginning in January 2016. At the time of sample selection, beneficiaries must have had:

- 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 federal poverty level (FPL) fields in the Data Warehouse
- Michigan address
- Preferred language of English, Arabic, or Spanish

Exclusion in one month of sampling did not prohibit inclusion in a subsequent month. Each month's sample was drawn to reflect the target sampling plan, proportional to the characteristics of Healthy Michigan Plan beneficiaries as a whole.

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%)

Sampling Plan

	Prosperity Region				
	UP/NW/NE	W/EC/E	SC/SW/SE	DET	Total
Federal Poverty Level					
0-35%	7.0%	12.0%	8.0%	12.8%	39.9%
36-99%	6.0%	10.5%	7.0%	11.2%	34.8%
≥100%	4.9%	7.5%	5.0%	8.0%	25.5%

The 4,090 respondents included in this first report of selected findings closely mirror the sampling plan:

Characteristics of the 4,090 HMV Survey Respondents

	Prosperity Region				
	UP/NW/NE	W/EC/E	SC/SW/SE	DET	Total
Federal Poverty Level					
0-35%	288	503	323	486	1,600
	7.0%	12.3%	7.9%	11.9%	39.1%
36-99%	246	467	309	428	1,450
	6.0%	11.4%	7.6%	10.5%	35.5%
≥100%	212	295	205	328	1,040
	5.2%	7.2%	5.0%	8.0%	25.4%
Total N complete	746	1,265	837	1,242	4,090
Total % complete	18.2%	30.9%	20.5%	30.4%	100.00%

HMP beneficiaries selected for the HMV beneficiary survey sample were mailed an introductory packet that contained a letter explaining the project, a brochure about the project, and a postage-paid postcard that could be used to indicate preferred time/day for interview. A toll-free number was provided for beneficiaries who wished to call in at their convenience; otherwise, Healthy Michigan Voices interviewers placed phone calls to sampled beneficiaries between the hours of 9 am and 9 pm. Surveys were conducted in English, Arabic and Spanish; beneficiaries who could not speak one of those languages were excluded from participation.

Survey Design

The survey included measures of demographics, health, access, insurance status and acute care decision making. Many measures were established measures drawn from national surveys, including the National Health and Nutrition Exam Survey (NHANES)[1], the Health Tracking Household Survey (HTHS)[2], the National Health Interview Survey (NHIS)[3], the Behavioral Risk Factor Surveillance System (BRFSS, and MiBRFSS), the Short Form Health Survey (SF-12)[4], the Food Attitudes and Behaviors Survey, the Consumer Assessment of Healthcare Providers and Systems (CAHPS)[5], the Employee Benefit Research Institute Consumer Engagement in Healthcare Survey (CEHCS)[6], the Health Tracking Household Survey, the Commonwealth Fund Health Quality Survey, and the U.S. Census. New items and scales for which established measures were not available, or which were specific to HMP (e.g., items about Health Risk

[1] NHANES (National Health and Nutrition Exam Survey, CDC)
[2] HTHS (Health Tracking Household Survey)
[3] NHIS (National Health Interview Survey, CDC)
[4] SF-12 (Short Form Health Survey, RAND)
[5] CAHPS (Consumer Assessment of Healthcare Providers and Systems)
[6] Consumer Engagement in Health Care Survey (EBRI: CEHCS)

Assessments, understanding of HMP), were developed based on findings from 67 semi-structured interviews with HMP beneficiaries conducted by the evaluation team. 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 programmed with the HMV survey.

Survey Response Characteristics

Overall, 9,350 Healthy Michigan Program enrollees were sampled throughout the data collection period. Seven cases with non-mailable addresses were excluded from the population; 100 cases were never mailed or called because data collection goals were achieved; 16 cases were never called because we did not have language-specific interviewers available. Thus, 123 of the original 9,350 were never contacted by phone.

Pre-notification letters were sent to the remaining 9,227 cases, which included a postcard to identify best time/number to call or refusal to participate. Phone calls were made to enrollees who did not refuse by postcard. Some numbers did not work, hence, no contact was established; some numbers worked but no contact was ever established, not allowing us to ascertain eligibility; and other numbers worked and contact was established.
We summarize the results briefly as follows:

Table 1. Call Results to Sampled Individuals

Description	n	Call Result
Total sample	9,350	
Nonmailable (e.g., bad address)	7	n/a
Not included – response goals achieved	100	n/a
Not called	16	n/a
Total sample contact attempted	9,227	
Contact never established		
1) Phone number not working	885	Nonworking number
2) Working but no contact made (e.g., left voicemail but never spoke with a person)	1,360	Unknown eligibility (UN)
Contact established		
3) Enrollee verified not at that number	583	Ineligible
4) Out of state	30	Ineligible
5) Deceased	3	Ineligible
6) Non-HMV language	36	Ineligible
7) Jail/Treatment facility	2	Ineligible
8) Refusal (by mail/phone)	945	Refusal (R)

9) Noncontact with enrollee (Spoke with a person other than enrollee) Other nonresponse (Spoke with an enrollee but did not participate for reasons other than clear refusal)	1,247	Noncontact (NC), Other (O)
10) Full completion	4,090	Interview (I)[7]
11) Partial completion	46*	Partial Interview (P)

*Eighteen cases were originally considered full completion but later recoded to partial completion after the weights were calculated because they had more than 20% of items missing.

There are many ways to calculate response rates as outlined by the American Association for Public Opinion Research (AAPOR, 2016[8]). Response rate formula 3 defined below is one of the common formulas used, particularly for telephone surveys.

$$RR3 = \frac{I}{(I+P)+(R+NC+O)+e\times UN}$$

where e is an estimate eligibility rate for the cases for which we cannot ascertain eligibility and the rest are noted in the table above. One way to estimate e is to use our call results among those we established contacts. As shown above, categories 3) through 7) are deemed ineligible, making 8) through 11) eligible among all contacted. Hence,

$$e = \frac{945+1237+4090+46}{9350-7-100-16-885-1360} = 90.6(\%)$$

By applying e as estimated above, we obtain the following response rate:

$$RR3 = \frac{4090}{(4090+46)+(945+1247)+.906\times 1360} = 54.1(\%)$$

The weighted response rate was calculated to ascertain the response rate that is not subject to the sample design. We used the selection weight (w_1 in the weighting steps document) to the RR3 formula and used weights applicable for known eligibility cases (w_3 in the weighting steps document) to e, the estimated eligibility rate. The results are as follows:

$$weighted\ e = 89.9(\%)$$

$$Weighted\ RR3 = 53.7(\%)$$

Thus, the weighted response rate for the 2016 Healthy Michigan Voices enrollee survey was 53.7%.

[7] NOTE: There was one case that responded to HMV but whose data were over-written due to system issues. This case was considered as a respondent in the response rate calculation but there were no survey data for this case.
[8] The American Association for Public Opinion Research. 2016. Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. 9th edition. AAPOR. Access from http://www.aapor.org/AAPOR_Main/media/publications/Standard-Definitions20169theditionfinal.pdf

Analyses

We calculated descriptive statistics for responses to all questions in the survey and these are highlighted in the tables within the body of this report. Weights were calculated and applied to data to adjust for the probability of selection (see Selection Weight, below), nonresponse bias (see Nonresponse Adjustment) and other adjustments (Nonworking Number adjustment, Unknown Eligibility adjustment, Known Eligibility adjustment). **As a result, please note that the proportions included in this report reflect how the results we observed would apply to the eligible population of HMP enrollees** (based on inclusion and exclusion criteria described on page 9). The number of individuals who responded to each survey question is noted in the tables in the report. When N is less than 4,090, this indicates that either some respondents missed that question or the question was part of a skip pattern and was therefore only asked of a subset of respondents according to their previous responses.

For analyses of bivariate and multivariate relationships, the types of analysis, models, variables included and how defined are described in text within this report and are included in the tables in the Appendix of this report. The specific tests are described in the table legends.

In a small number of cases (46), beneficiaries asked to end the survey early or did not follow the intended skip patterns, and their responses were excluded from this analysis. In cases where respondents skipped or refused to answer specific questions, those observations are not included in the analysis for those questions.

Selection Weight

The Healthy Michigan Voices survey sample was drawn each month from January through October 2016 from the HMP enrolled population using stratification which combines FPL and prosperity region. The same stratification sample design determined at the outset of the project was used every month. In each month, the eligible population was defined as HMP enrollees in the Data Warehouse who met the eligibility criteria listed on page 9.
Starting in the second month of sampling, beneficiaries sampled in the previous month(s) were excluded from the population.

Reflecting the sample design, the first step used an inverse of sampling probability and calculated selection weights for sample unit *i* in sampling month *m* in sampling stratum *h* as follows:

$$w_{1,hmi} = \frac{N_{hm}}{n_{hm}}$$

where N_{mh} is the population size and n_{mh} is the sample size.

We made adjustment for nonworking numbers, ineligible cases, unknown eligibility cases and nonresponse (noncontacts and refusal combined) separately as follows.

Nonworking Number Adjustment

Nonworking numbers were considered out of our target population. These numbers were considered out of scope and removed from the sample. We used the following adjustment, $f_{2,hmi}$, factor for this.

$$f_{2,hmi} = \begin{cases} 0, & if\ i\ was\ not\ a\ working\ number \\ \frac{\sum_i w_{1,hmi}}{\sum_i I\_WR_i \times w_{1,hmi}}, & if\ i\ was\ a\ working\ number \end{cases}$$

where I_WR_i was a 1/0 indicator for working number status (1: working number, 0: nonworking number). Essentially, $f_{2,hmi}$ removed the nonworking numbers from the scope and weighted up working numbers proportionally within each sampling stratum and month. The resulting weight was:

$$w_{2,hmi} = f_{2,hmi} \times w_{1,hmi}$$

Unknown Eligibility Adjustment

Besides the nonworking numbers, there were working numbers that were never contacted. With these cases, HMV eligibility could not be ascertained. Moreover, the eligibility rate may have differed systematically across strata and some other observed characteristics in the HMP enrollee data. Thus, a new adjustment factor was applied to the weight from the previous stage:

$$f_{3,hmi} = \begin{cases} 0, & if\ eligibility\ is\ unknown\ for\ i \\ \frac{\sum_i w_{2,hmi}}{\sum_i I\_UE_i \times w_{2,hmi}}, & if\ eligibility\ is\ known\ for\ i \end{cases}$$

where I_UE_i was a 1/0 indicator for unknown eligibility status (1: known eligibility; 0: unknown eligibility. The resulting weight was:

$$w_{3,hmi} = f_{3,hmi} \times w_{2,hmi}$$

Known Eligibility Adjustment

Among those who were contacted, some may not have been eligible for HMV for various reasons related to the eligibility criteria in Section 1. These cases fell outside of the target population and, hence, were removed through the following:

$$f_{4,hmi} = \begin{cases} 0, & if\ i\ is\ ineligible \\ \frac{\sum_i w_{3,hmi}}{\sum_i I\_EL_i \times w_{3,hmi}}, & if\ i\ is\ eligible \end{cases}$$

where I_EL_i was a 1/0 indicator for eligibility status (1: eligible; 0: ineligible). The resulting weight was:

$$w_{4,hmi} = f_{4,hmi} \times w_{3,hmi}$$

Nonresponse Adjustment

Those who are contacted and eligible were retained after the previous step. This did not necessarily mean a direct contact had been made with the enrollee. With some numbers, contact with the sample enrollee was never established. With the remainder, when an interview was solicited, some may have refused or declined participation for various reasons. These were all considered as nonresponse. Overall, there were 6,327 eligible cases; among them, 4,090 were respondents (64.6%).[9]

From the HMV sample frame data, we considered the following characteristics for nonresponse analysis as they were available for both respondents and nonrespondents:

- Sex
- Age (19-34; 35-49; 50-64 years old)
- Race/ethnicity (Hispanic; Non-Hispanic White; Non-Hispanic Black; Non-Hispanic other)
- First HMP month (2 years or more ago; less than 2 years ago)

Additionally, we had the following sampling information available for both respondents and nonrespondents:

- Stratum (FPL x Region)
- FPL
- Region
- Sampling month

Table 2 includes the number of eligible cases by characteristics listed above and the proportion of respondents among eligible cases. Younger and male enrollees were less likely to respond than their counterparts. Based on race/ethnicity, non-Hispanic Black enrollees were most likely to respond, and those in the non-Hispanic other group were least likely to do so. While the proportion of respondents was similar across income levels, among the four regions, Detroit had the lowest proportion. Among 12 strata, UP/NW/NE with 100%+ FPL at 69.5% and W/EC/E with 36-99% FPL at 69.2% had the highest proportion of respondents. Detroit with 36-99% FPL had the lowest proportion at 58.9%. No clear pattern was observed by sampling month. Nonresponse did not occur identically across characteristics as seen in Table 2, which required an adjustment. Following Lee and Valliant (2008)[10], a logistic regression model was used to predict response while controlling for differences in characteristics between respondents and nonrespondents. The predictors included age, sex, race/ethnicity, first month on HMP, sampling strata, sampling month and the interaction between sampling strata and sampling month. The adjustment factor, $f_{5,i}$, was the inverse of response propensity predicted from the logistic regression. The resulting weight was:

$$w_{5,imh} = w_{4,mhi} \times f_{5,i}$$

[9] There was one case that responded to HMV but whose data were over-written due to system issues. This case was considered as a respondent in the response rate calculation but dropped in the weighting as there were no survey data for this case.

[10] Lee S, Valliant R. 2008. Weighting telephone samples using propensity scores. Advances in Telephone Survey Methodology. 170-183.

Table 2. Proportion of Respondents Among Eligible Cases by Sample Characteristics (for Non-Response Adjustments for Weighting Purpose)

Characteristics	Eligible (n)	Respondents (%)	Characteristics	Eligible (n)	Respondents (%)
Total	6,327	64.9	**Sampling Stratum**		
Age			1. UP/NW/NE, 0-35%	443	65.2
19-35 years old	2,304	60.2	2. UP/NW/NE, 36-99%	385	63.9
36-49 years old	1,755	64.4	3. UP/NW/NE, 100%+	305	69.5
50-64 years old	2,268	70.1	4. W/EC/E, 0-35%	742	68.1
Sex			5. W/EC/E, 36-99%	676	69.2
Female	3,562	67.8	6. W/EC/E, 100%+	464	63.8
Male	2,765	61.2	7. SC/SW/SE, 0-35%	481	67.6
Race/Ethnicity			8. SC/SW/SE, 36-99%	468	66.2
Hispanic	174	64.4	9. SC/SW/SE, 100%+	315	65.1
Non-Hispanic White	4,396	64.4	10. DET, 0-35%	799	61.3
Non-Hispanic Black	1,121	68.8	11. DET, 36-99%	733	58.9
Non-Hispanic Other	636	61.6	12. DET, 100%+	516	63.8
First month on HMP			**Sampling Month**		
Less than 2 yrs ago	3,518	62.6	1	422	61.8
2 yrs or more ago	2,809	67.8	2	576	64.9
FPL			3	698	66.5
0-35%	2,465	65.3	4	735	65.4
36-99%	2,262	64.4	5	701	66.9
100%+	1,600	65.1	6	680	67.8
Region			7	866	68.8
UP/NW/NE	1,133	65.9	8	658	63.2
W/EC/E	1,882	67.4	9	654	57.6
SC/SW/SE	1,264	66.5	10	337	61.7
DET	2,048	61.1			

Post-stratification

The target population of the HMV survey is HMP enrollees ever eligible for HMV (as defined in Section 1) between January and October 2016. There were 384,262 such persons. From the sample frame data we had information about the characteristics of this population. Table 3 compares the population and the sample weighted by nonresponse adjustment weight ($w_{5,imh}$) with respect to age, sex, race/ethnicity, first month enrolled in HMP, sampling stratum, FPL and region. Our weighted sample matched the population reasonably well across most characteristics, except for age, sex and first month on HMP. Compared to the population, our sample overrepresented beneficiaries who were older, females or who enrolled in HMP during the first 3 months of HMP. Hence, this known discrepancy was handled through post-stratification. All the characteristics in Table 3 were controlled for in the post-stratification

using an iterative proportional fitting method (Deville et al., 1993)[11]. This process forced the sample to match the population with respect to the controlled characteristics.
Post-stratification may force the weights to be extreme. These extreme weights increase the variability of estimates and, in turn, lower statistical power. In order to minimize the effect of extreme weights, these weights are trimmed. To address this issue we used the Individual and Global Cap Value (IGCV) method introduced by Izrael et al. (2009)[12]. This method sets thresholds for minimum and maximum adjustment factors in relation to the individual weights and to all weights globally. Specifically, our procedure set the global high cap at 7, the global low cap at 0.12, the individual high cap at 5 and the individual low cap at 0.2. The trimmed weights were normalized to the population total of 384,262. The resulting weight is $w_{6,imh}$. Table 3 includes the sample characteristics weighted by $w_{6,imh}$. When using the post-stratified weight, the sample matched perfectly. However, compared to when using the nonresponse adjustment weight, there was a slight increase in standard error due to variability in weights introduced by post-stratification.

[11] Deville JC, Särndal CE, Sautory O. 1993. Generalized raking procedures in survey sampling. *Journal of the American Statistical Association*. 88(423):1013-20.

[12] Izrael D, Battaglia MP, Frankel MR. 2009. Extreme survey weight adjustment as a component of sample balancing (aka raking). In Proceedings from the Thirty-Fourth Annual SAS Users Group International Conference.

Table 3. Comparison of Eligible HMP Population and HMV Sample

Characteristics	Population		Sample				
				Weighted by w_5		Weighted by w_6	
	N	%	n	%	SE	%	SE
Total	384,262		4,090				
Age							
19-35 years old	163,071	42.4	1,380	36.9	0.9	42.3	1.0
36-49 years old	113,660	29.6	1,125	28.1	0.8	29.6	0.9
50-64 years old	107,531	28.0	1,585	34.9	0.9	28.1	0.8
Sex							
Female	197,883	51.5	2,409	54.1	0.9	51.6	1.0
Male	186,379	48.5	1,681	45.9	0.9	48.4	1.0
Race/Ethnicity							
Non-Hispanic White	232,688	60.6	2,784	63.1	0.9	60.4	1.0
Non-Hispanic Black	91,208	23.7	807	23.2	0.8	25.8	0.9
Other	60,366	15.7	499	13.7	0.7	13.8	0.7
First month on HMP							
4-6, 2014	158,983	41.4	2,146	49.7	0.9	41.5	0.9
7-12, 2014	89,945	23.4	1,111	27.6	0.8	23.4	0.8
2015	135,334	35.2	833	22.7	0.8	35.2	1.1
Strata							
1. UP/NW/NE, 0-35%	13,282	3.5	288	3.6	0.2	3.5	0.1
2. UP/NW/NE, 36-99%	11,835	3.1	246	3.3	0.2	3.1	0.1
3. UP/NW/NE, 100%+	9,291	2.4	212	2.6	0.2	2.4	0.0
4. W/EC/E, 0-35%	52,224	13.6	503	13.4	0.6	13.6	0.3
5. W/EC/E, 36-99%	33,157	8.6	467	8.8	0.4	8.6	0.2
6. W/EC/E, 100%+	24,248	6.3	295	6.5	0.4	6.3	0.2
7. SC/SW/SE, 0-35%	34,675	9.0	323	8.7	0.5	9.0	0.3
8. SC/SW/SE, 36-99%	20,909	5.4	309	5.5	0.3	5.5	0.2

9. SC/SW/SE, 100%+	15,569	4.1	205	4.0	0.3	4.1	0.2
10. DET, 0-35%	99,024	25.8	486	25.0	1.0	25.7	0.5
11. DET, 36-99%	43,569	11.3	428	11.7	0.6	11.2	0.4
12. DET, 100%+	26,479	6.9	328	6.9	0.4	6.9	0.2
FPL							
0-35%	199,205	51.8	1,600	50.7	0.9	51.8	0.5
36-99%	109,470	28.5	1,450	29.3	0.8	28.4	0.4
100%+	75,587	19.7	1,040	20.0	0.6	19.8	0.3
Region							
UP/NW/NE	34,408	9.0	746	9.4	0.4	9.0	0.2
W/EC/E	109,629	28.5	1,265	28.8	0.8	28.6	0.4
SC/SW/SE	71,153	18.5	837	18.2	0.6	18.6	0.4
DET	169,072	44.0	1,242	43.6	1.0	43.8	0.5

RESULTS

Demographic Characteristics of Respondents

After weighting, demographic characteristics of respondents closely match characteristics of the eligible HMP population as a whole (see Table 3, above).

Table 4. Demographic Characteristics

	%	95% CI
Gender (n=4,090)		
F (n=2,409)	51.6	[49.6,53.5]
M (n=1,681)	48.4	[46.5,50.4]
Age (n=4,090)		
19-34 (n=1,303)	40.0	[38.0,42.0]
35-50 (n=1,301)	34.0	[32.1,35.9]
51-64 (n=1,486)	26.0	[24.5,27.6]
Race (n=4,039)		
White (n=2,784)	61.2	[59.3,63.0]
Black or African American (n=807)	26.1	[24.3,27.9]
Other (n=306)	8.8	[7.7,10.0]
More than one (n=142)	4.0	[3.3,4.9]

Hispanic/Latino (n=4,056)		
Yes (n=188)	5.2	[4.4,6.2]
No (n=3,856)	94.3	[93.3,95.2]
Don't know (n=12)	0.5	[0.2,0.9]
Arab, Chaldean, Middle Eastern (n=4,055)		
Yes (n=204)	6.2	[5.3,7.2]
No (n=3,842)	93.6	[92.5,94.5]
Don't know (n=9)	0.3	[0.1,0.6]
Region (n=4,090)		
Upper Peninsula/Northwest/Northeast (n=746)	9.0	[8.6,9.4]
West/East Central/East (n=1,265)	28.6	[27.8,29.4]
South Central/Southwest/Southeast (n=837)	18.6	[17.8,19.3]
Detroit Metro (n=1,242)	43.8	[42.8,44.9]
FPL (n=4,090)		
0-35% (n=1,600)	51.8	[50.8,52.8]
36-99% (n=1,450)	28.4	[27.6,29.3]
≥100% (n=1,040)	19.8	[19.1,20.4]
Medicaid Health Plan (n=4,088)		
Aetna (n=58)	1.7	[1.2,2.3]
Blue Cross (n=356)	11.6	[10.2,13.1]
Harbor (n=18)	0.7	[0.4,1.3]
McLaren (n=633)	13.0	[11.9,14.2]
Meridian (n=1,265)	29.8	[28.1,31.6]
Midwest (n=3)	0.1	[0.0,0.2]
Molina (n=701)	18.0	[16.5,19.5]
Priority (n=268)	5.9	[5.2,6.7]
Total Health Care (n=85)	2.8	[2.2,3.7]
United (n=443)	13.2	[11.8,14.7]
Upper Peninsula Health Plan (n=258)	3.2	[2.8,3.6]
Employment Status (n=4,075)		
Employed or self-employed (n=2,079)	48.8	[47.0,50.7]
Out of work ≥1 year (n=707)	19.7	[18.1,21.3]
Out of work <1 year (n=258)	7.9	[6.8,9.1]
Homemaker (n=217)	4.5	[3.8,5.3]
Student (n=161)	5.2	[4.3,6.2]
Retired (n=167)	2.5	[2.1,3.0]
Unable to work (n=479)	11.3	[10.1,12.5]
Don't know (n=7)	0.2	[0.1,0.4]
Veteran (n=4,086)		
Yes (n=125)	3.4	[2.7,4.2]
No (n=3,958)	96.5	[95.7,97.2]
Don't know (n=3)	0.1	[0.0,0.5]

Marital Status (n=4,073)		
Married (n=1,008)	20.4	[19.0,21.8]
Partnered (n=185)	4.3	[3.6,5.1]
Divorced (n=865)	18.2	[16.8,19.6]
Widowed (n=147)	2.8	[2.3,3.4]
Separated (n=119)	2.8	[2.3,3.4]
Never Married (n=1,745)	51.6	[49.6,53.5]
Don't know (n=4)	0.1	[0.0,0.2]
Any chronic health condition present (n=4,090)		
Yes (n=2,986)	69.2	[67.3,71.0]
No (n=1,104)	30.8	[29.0,32.7]
At least one physical health condition present (n=4,090)		
Yes (n=2,689)	60.8	[58.8,62.8]
No (n=1,401)	39.2	[37.2,41.2]
At least one mental health condition present (n=4,090)		
Yes (n=1,351)	32.1	[30.3,33.9]
No (n=2,739)	67.9	[66.1,69.7]
Other household enrollee (n=4,082)		
Yes (n=1,592)	35.7	[34.0,37.5]
No (n=2,289)	58.0	[56.1,59.8]
Don't know (n=201)	6.3	[5.3,7.6]

Insurance Coverage Prior to HMP

More than half (57.9%) of survey respondents did not have health insurance at any time in the 12 months prior to HMP enrollment. Of those who reported having health insurance at some point during the 12 months prior to HMP enrollment, the majority (73.8%) had health insurance for all 12 months. Thus, less than one-third (30.2%) of all respondents reported that they had insurance for all 12 months prior to enrolling in HMP. Approximately half (50.8%) of survey respondents who reported having health insurance at any time in the 12 months prior to HMP enrollment had Medicaid, MiChild, or health coverage through another state health program, while a quarter (26.2%) had private insurance through a job or union. Among those who reported private insurance they purchased themselves or someone else purchased (10.2%), approximately one-third (31.5%) purchased the insurance on the healthcare.gov website, and 61.8% of those respondents who purchased health insurance on the healthcare.gov website reported receiving a subsidy.

	%	95% CI
At any time during the 12 months BEFORE you enrolled in the Healthy Michigan Plan, did you have any type of health insurance? (n=4,087)		
Yes (n=1,667)	40.7	[38.8,42.6]
No (n=2,374)	57.9	[55.9,59.8]
Don't know (n=46)	1.4	[1.0,2.1]

[If Yes] Did you have health insurance for all 12 months, 6-11 months, less than 6 months, or not at all? (n=1,667)		
All 12 months (n=1,235)	73.8	[71.1,76.5]
6-11 months (n=245)	15.2	[13.0,17.6]
Less than 6 months (n=129)	7.6	[6.2,9.3]
Don't know (n=58)	3.4	[2.5,4.7]
What type of health insurance did you have?* (n=1,622)		
Medicaid, MiChild, or other state program (n=834)	50.8	[47.7,53.9]
Private insurance provided through a job or union (n=409)	26.2	[23.6,29.0]
Private insurance purchased by you or someone else (n=157)	10.2	[8.3,12.6]
County health plan (n=127)	6.3	[5.2,7.7]
Veterans Health or VA care (n=21)	1.4	[0.8,2.3]
CHAMPUS, TRICARE, other military coverage (n=3)	0.3	[0.1,1.2]
Medicare (n=5)	0.3	[0.1,0.7]
Indian Health Service (n=3)	0.1	[0.0,0.3]
Other (n=83)	5.6	[4.3,7.3]
Don't know (n=23)	1.2	[0.8,1.9]
[If private insurance purchased by you or someone else] Was this insurance purchased on the HealthCare.gov exchange? (n=152)		
Yes (n=59)	31.5	[22.6,41.9]
No (n=75)	55.4	[44.1,66.2]
Don't know (n=18)	13.1	[7.6,21.7]
[If Yes] Did you receive a subsidy? (n=59)		
Yes (n=37)	61.8	[43.9,76.9]
No (n=18)	29.0	[18.1,43.1]
Don't know (n=4)	9.3	[2.2,31.3]

**Respondents were able to provide more than one response for this question; As a result, percentages may exceed 100%.*

Impact of Prior Year Insurance Status on Improvements in Foregone Care, Access and Health

Respondents who were uninsured all 12 months in the year prior to enrolling in HMP were more likely than those who were insured all 12 months, and those who were insured part of the year, to report foregoing care during that year, and more likely to report foregoing care due to cost concerns (See Appendix Table 1).

Those who were insured all 12 months prior to enrolling in HMP were less likely to report improvements in access to care or improvements in physical, mental or oral health (See Appendix Table 1).

Those who were insured all 12 months prior to HMP agreed less that HMP had reduced stress and they worried less about something bad happening to their health (See Appendix Table 1).

Current Health Status/Change in Health with HMP

More than one-third of respondents rated their health as either excellent or very good (36.3%). Since enrolling in the Healthy Michigan Plan, most respondents reported their physical health had improved (47.8%) or stayed the same (46.1%), their mental health had improved (38.2%) or stayed the same (56.8%) and their dental health had improved (39.5%) or stayed the same (45.5%). About one-third (31.7%) of survey respondents reported losing weight in the past year.

	Mean or %	95% CI
In general, would you say your health is... (n=4,088)		
Excellent (n=337)	9.5	[8.4,10.8]
Very good (n=1,041)	26.8	[25.0,28.7]
Good (n=1,448)	33.8	[32.0,35.7]
Fair (n=931)	22.2	[20.7,23.8]
Poor (n=324)	7.5	[6.6,8.6]
Don't know (n=7)	0.1	[0.0,0.4]
For how many days in the past 30 days was your physical health not good? (n=4,033)		
<14 of past 30 days (n=3,055)	77.2	[75.5,78.7]
≥14 of past 30 days (n=978)	22.8	[21.3,24.5]
For how many days in the past 30 days was your physical health not good? (n=4,033)	Mean 6.8	[6.4,7.2]
Overall, since you enrolled in the Healthy Michigan Plan, would you say your physical health has gotten better, stayed the same, OR gotten worse? (n=4,086)		
Gotten better (n=1,961)	47.8	[45.8,49.8]
Stayed the same (n=1,851)	46.1	[44.2,48.1]
Gotten worse (n=256)	5.5	[4.8,6.4]
Don't know (n=18)	0.5	[0.3,1.0]
For how many days in the past 30 days was your mental health not good? (n=4,002)		
<14 of past 30 days (n=3,226)	80.1	[78.5,81.7]
≥14 of past 30 days (n=776)	19.9	[18.3,21.5]
For how many days in the past 30 days was your mental health not good? (n=4,002)	Mean 6.0	[5.6,6.4]
Overall, since you enrolled in Healthy Michigan Plan, would you say your mental and emotional health has gotten better, stayed the same, OR gotten worse? (n=4,080)		
Gotten better (n=1,550)	38.2	[36.3,40.1]
Stayed the same (n=2,318)	56.8	[54.8,58.7]
Gotten worse (n=186)	4.6	[3.9,5.5]
Don't know (n=26)	0.5	[0.3,0.7]

During the past 30 days, for how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation? (n=4,079)		
0-13 days (n=3,277)	80.6	[79.1,82.1]
14-30 days (n=749)	18.2	[16.8,19.8]
Don't know (n=53)	1.1	[0.8,1.6]
During the past 30 days, for how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation? (n=4,026) [Note: Same as above but excludes "Don't know"]		
<14 of past 30 days (n=3,277)	81.6	[80.0,83.0]
≥14 of past 30 days (n=749)	18.4	[17.0,20.0]
During the past 30 days, for how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation? (n=4,026)	Mean 5.3	[4.9,5.7]
Since you enrolled in the Healthy Michigan Plan, has the health of your teeth and gums gotten better, stayed the same, OR gotten worse? (n=4,084)		
Gotten better (n=1,641)	39.5	[37.6,41.5]
Stayed the same (n=1,809)	45.5	[43.5,47.5]
Gotten worse (n=443)	10.4	[9.3,11.6]
Don't know (n=191)	4.6	[3.9,5.5]
Compared to 12 months ago, how would you describe your weight? (n=4,084)		
Lost weight (n=1,300)	31.7	[29.9,33.6]
Gained weight (n=1,036)	26.4	[24.7,28.2]
Stayed about the same (n=1,732)	41.5	[39.6,43.4]
Don't know (n=16)	0.4	[0.2,0.7]

Chronic Health Conditions

More than two-thirds (69.2%) reported any chronic health condition with 60.8% reporting at least one physical health condition and 32.1% reporting at least one mental health condition. About one-fourth (23.7%) reported having both a physical health condition and a mental health condition. Nearly one-third (30.3%) reported that they had a chronic health condition that was newly diagnosed since enrolling in HMP. Almost one-fifth (18.4%) of respondents reported a functional limitation.

	Col %	95% CI
At least one physical health condition present (n=4,090)		
Yes (n=2,689)	60.8	[58.8,62.8]
No (n=1,401)	39.2	[37.2,41.2]
At least one mental health condition present (n=4,090)		
Yes (n=1,351)	32.1	[30.3,33.9]
No (n=2,739)	67.9	[66.1,69.7]

Any chronic health condition present (n=4,090)		
Yes (n=2,986)	69.2	[67.3,71.0]
No (n=1,104)	30.8	[29.0,32.7]
Any physical health condition AND any mental health condition		
Yes (n=1,054)	23.7	[22.2,25.3]
No (n=3,036)	76.3	[74.7,77.8]
Any new diagnoses since HMP enrollment (n=4,090)		
Yes (n=1,318)	30.6	[28.8,32.4]
No (n=2,772)	69.4	[67.6,71.2]
Functional limitations (n=4,026)		
Yes (n=749)	18.4	[17.0,20.0]
No (n=3,277)	81.6	[80.0,83.0]

The most common chronic conditions reported were hypertension (31.3%), mood disorder (30.4%), and other health conditions (29.2%). Respondents frequently found out about these chronic conditions after enrollment in HMP.

	%	95% CI
Has a doctor or other health professional every told you that you had any of the following?		
Hypertension (n=4,089)		
Yes (n=1,411)	31.3	[29.6,33.1]
No (n=2,661)	68.2	[66.4,69.9]
Don't know (n=17)	0.5	[0.3,0.9]
[If Yes] Did you find out you had [Hypertension] before or after you enrolled in the Healthy Michigan Plan? (n=1,411)		
Before (n=960)	66.6	[63.4,69.7]
After (n=441)	32.4	[29.4,35.6]
Don't know (n=10)	0.9	[0.4,2.0]
Heart disease (n=4,089)		
Yes (n=426)	9.7	[8.6,10.9]
No (n=3,645)	90.0	[88.8,91.1]
Don't know (n=18)	0.3	[0.2,0.5]
[If Yes] Did you find out you had [Heart disease] before or after you enrolled in the Healthy Michigan Plan? (n=426)		
Before (n=290)	65.6	[59.3,71.4]
After (n=135)	34.3	[28.5,40.6]
Don't know (n=1)	0.1	[0.0,0.8]
Diabetes (n=4,089)		
Yes (n=499)	10.8	[9.7,12.0]
No (n=3,574)	88.8	[87.6,89.9]
Don't know (n=16)	0.4	[0.2,0.7]

[If Yes] Did you find out you had [Diabetes] before or after you enrolled in the Healthy Michigan Plan? (n=499)		
Before (n=331)	63.8	[58.1,69.1]
After (n=163)	35.4	[30.1,41.1]
Don't know (n=5)	0.8	[0.3,2.4]
Cancer (non-skin) (n=4,089)		
Yes (n=203)	3.7	[3.2,4.4]
No (n=3,876)	96.0	[95.3,96.6]
Don't know (n=10)	0.3	[0.1,0.6]
[If Yes] Did you find out you had [Cancer (non-skin)] before or after you enrolled in the Healthy Michigan Plan? (n=203)		
Before (n=130)	60.3	[51.8,68.3]
After (n=72)	39.2	[31.3,47.8]
Don't know (n=1)	0.5	[0.1,3.2]
Mood disorder (n=4,084)		
Yes (n=1,288)	30.4	[28.7,32.2]
No (n=2,786)	69.2	[67.4,71.0]
Don't know (n=10)	0.4	[0.2,0.8]
[If Yes] Did you find out you had [Mood disorder] before or after you enrolled in the Healthy Michigan Plan? (n=1,288)		
Before (n=941)	70.9	[67.5,74.0]
After (n=342)	28.8	[25.7,32.2]
Don't know (n=5)	0.3	[0.1,0.9]
Stroke (n=4,089)		
Yes (n=88)	1.9	[1.5,2.5]
No (n=3,997)	97.9	[97.3,98.4]
Don't know (n=4)	0.2	[0.0,0.5]
[If Yes] Did you find out you had [Stroke] before or after you enrolled in the Healthy Michigan Plan? (n=88)		
Before (n=53)	59.8	[46.7,71.7]
After (n=35)	40.2	[28.3,53.3]
Don't know (n=0)	0.0	
Asthma (n=4,088)		
Yes (n=725)	17.1	[15.7,18.6]
No (n=3,353)	82.7	[81.2,84.1]
Don't know (n=10)	0.2	[0.1,0.4]
[If Yes] Did you find out you had [Asthma] before or after you enrolled in the Healthy Michigan Plan? (n=725)		
Before (n=637)	86.6	[83.0,89.5]
After (n=84)	12.9	[10.0,16.4]
Don't know (n=4)	0.6	[0.2,2.0]

Chronic bronchitis, COPD, emphysema (n=4,089)		
Yes (n=479)	10.5	[9.4,11.7]
No (n=3,594)	89.1	[87.9,90.2]
Don't know (n=16)	0.4	[0.2,0.8]
[If Yes] Did you find out you had [Chronic bronchitis, COPD, emphysema] before or after you enrolled in the Healthy Michigan Plan? (n=479)		
Before (n=304)	65.0	[59.5,70.2]
After (n=173)	34.8	[29.6,40.3]
Don't know (n=2)	0.2	[0.0,0.8]
Substance use disorder (n=4,088)		
Yes (n=165)	4.1	[3.4,5.0]
No (n=3,916)	95.7	[94.8,96.4]
Don't know (n=7)	0.2	[0.1,0.5]
[If Yes] Did you find out you had [Substance use disorder] before or after you enrolled in the Healthy Michigan Plan? (n=165)		
Before (n=148)	88.9	[81.6,93.5]
After (n=15)	9.5	[5.3,16.3]
Don't know (n=2)	1.6	[0.4,7.1]
Other chronic condition (n=4,087)		
Yes (n=1,317)	29.2	[27.5,30.9]
No (n=2,759)	70.5	[68.8,72.2]
Don't know (n=11)	0.3	[0.1,0.5]
[If Yes] Did you find out you had [Other chronic condition] before or after you enrolled in the Healthy Michigan Plan? (n=1,317)		
Before (n=829)	63.8	[60.6,67.0]
After (n=451)	33.6	[30.5,36.8]
Don't know (n=37)	2.6	[1.7,3.9]

Health Risk Assessment (HRA)

Approximately half (49.3%) of survey respondents reported that they remembered completing the HRA. This is higher than the completion rate obtained using data from the MDHHS Data Warehouse. One potential explanation for this discrepancy between the self-reported rate and the State reported rate is that some respondents may have completed only the patient portion of the HRA but reported HRA completion in the survey; without also turning in the provider portion of the HRA such partial completions would be marked incomplete in the Data Warehouse. Other potential reasons include recall bias or misunderstanding about the HRA as a special form developed for Healthy Michigan Plan enrollees (e.g., some respondents may be unable to differentiate between the HRA and other health questionnaires they had completed). Among those who reported completing the HRA, the most common reasons for completion were that their primary care provider (PCP) suggested it (45.9%), they got it in the mail (33%),

and/or that they completed it during enrollment on the phone (12.6%). Among respondents who reported getting the HRA in the mail, 71.9% said they took the form to their PCP.

	%	95% CI
Do you remember completing the Health Risk Assessment? (n=4,089)		
Yes (n=2,102)	49.3	[47.3,51.2]
No (n=1,681)	42.7	[40.8,44.7]
Don't know (n=306)	8.0	[6.9,9.2]
[If Yes] What led you to complete it?* (n=2,102)		
PCP suggested (n=996)	45.9	[43.2,48.7]
Got it in the mail (n=693)	33.0	[30.4,35.6]
At enrollment on the phone (n=253)	12.6	[10.9,14.6]
Health plan suggested (n=149)	7.3	[6.0,8.9]
To stay on top of my health (n=64)	2.9	[2.1,3.9]
Gift card/money/reward (n=57)	2.5	[1.8,3.4]
To save money on copays/cost-sharing (n=2)	0.1	[0.0,0.3]
Other (n=50)	2.7	[1.8,4.0]
Don't know (n=79)	3.9	[3.0,5.2]
[If 'Got it in the mail'] Did you take the form to your primary care provider? (n=622)		
Yes (n=481)	71.9	[66.5,76.7]
No (n=106)	22.4	[17.8,27.7]
Don't know (n=35)	5.7	[3.7,8.8]

**Respondents were able to provide more than one response for this question. As a result, percentages may exceed 100%.*

A majority of those who reported completing the HRA felt that the HRA was valuable for improving their health (83.7%) and was helpful for their PCP to understand their health needs (89.7%). About one-third (31.5%) of those who said they completed the HRA felt that the HRA was not that helpful because they already knew what they needed to do to be healthy.

	%	95% CI
I think doing the Health Risk Assessment was valuable for me to improve my health. (n=2,100)		
Strongly agree (n=399)	19.0	[16.8,21.3]
Agree (n=1,354)	64.7	[62.0,67.4]
Neutral (n=222)	10.2	[8.7,12.1]
Disagree (n=104)	4.8	[3.8,6.1]
Strongly disagree (n=10)	0.6	[0.3,1.2]
Don't know (n=11)	0.6	[0.3,1.5]

I think doing the Health Risk Assessment was helpful for my primary care provider to understand my health needs. (n=2,099)		
Strongly agree (n=515)	24.9	[22.6,27.4]
Agree (n=1,369)	64.8	[62.1,67.4]
Neutral (n=121)	6.1	[4.9,7.6]
Disagree (n=62)	2.4	[1.8,3.4]
Strongly disagree (n=8)	0.4	[0.2,0.8]
Don't know (n=24)	1.3	[0.8,2.2]
I know what I need to do to be healthy, so the Health Risk Assessment wasn't that helpful. (n=2,100)		
Strongly agree (n=92)	4.5	[3.5,5.7]
Agree (n=567)	27.0	[24.7,29.5]
Neutral (n=308)	16.8	[14.7,19.2]
Disagree (n=1,024)	46.2	[43.5,48.9]
Strongly disagree (n=87)	4.2	[3.2,5.6]
Don't know (n=22)	1.2	[0.7,2.1]

Among those who reported completing the HRA, 80.7% reported choosing to work on at least one health behavior. The most common behaviors that respondents reported selecting were related to nutrition/diet (57.2%) and exercise/activity (52.6%). Among respondents who chose to work on a health behavior, 61.3% said their health care provider or health plan helped them work on this behavior. Some (8%) said there was help they wanted that they did not get.

	%	95% CI
After going through the Health Risk Assessment, or at a primary care visit, did you choose to work on a healthy behavior or do something good for your health? (n=2,100)		
Yes (n=1,690)	80.7	[78.5,82.8]
No (n=393)	18.6	[16.6,20.9]
Don't know (n=17)	0.6	[0.3,1.1]
[If Yes] What did you choose to do?* (n=1,690)		
Nutrition/diet (n=947)	57.2	[54.2,60.2]
Exercise/activity (n=915)	52.6	[49.5,55.7]
Reduce/quit tobacco use (n=317)	18.4	[16.2,20.9]
Lose weight (n=191)	10.1	[8.5,11.9]
Reduce/quit alcohol consumption (n=55)	3.4	[2.5,4.8]
Take medicine regularly (n=32)	2.3	[1.5,3.5]
Monitor my blood pressure/blood sugar (n=33)	1.5	[1.0,2.2]
Flu shot (n=20)	0.9	[0.5,1.4]
Follow-up appointment for chronic disease (n=11)	0.6	[0.3,1.1]
Go to the dentist (n=7)	0.4	[0.2,1.1]
Treatment for substance use disorder (n=3)	0.2	[0.0,0.5]
Other (n=98)	5.4	[4.3,6.8]
Don't know (n=11)	0.8	[0.4,1.7]

Did your health care provider or health plan help you work on this healthy behavior? (n=1,677)		
Yes (n=1,088)	61.3	[58.2,64.4]
No (n=382)	26.3	[23.5,29.3]
NA (n=200)	11.9	[10.1,14.0]
Don't know (n=7)	0.4	[0.2,1.0]
[If Yes or No] Was there help that you wanted that you didn't get? (n=1,470)		
Yes (n=131)	8.0	[6.6,9.7]
No (n=1,313)	90.0	[88.0,91.7]
NA (n=18)	1.2	[0.6,2.3]
Don't know (n=8)	0.8	[0.3,2.0]

**Respondents were able to provide more than one response for this question; As a result, percentages may exceed 100%.*

Forty percent of survey respondents agreed that information about healthy behavior rewards led them do something they might not have done otherwise. A quarter (26.1%) disagreed, and one-fifth (21.3%) said they did not know.

	%	95% CI
Information about the healthy behavior rewards that I can earn has led me to do something I might not have done otherwise. (n=4,084)		
Strongly agree (n=204)	5.2	[4.4,6.3]
Agree (n=1,431)	35.4	[33.5,37.3]
Neutral (n=487)	12.0	[10.8,13.3]
Disagree (n=969)	24.1	[22.4,25.8]
Strongly disagree (n=75)	2.0	[1.5,2.6]
Don't know (n=918)	21.3	[19.8,22.9]

Health Behaviors and Health Education

More than one-third (36.7%) of survey respondents reported getting a flu shot last fall or winter. Almost one-third (31.9%) of survey respondents reported exercising every day for at least 20 minutes, 48.8% of respondents reported drinking sugary drinks two or fewer days per week, and 37.5% of respondents reported eating three or more servings of fruits or vegetables every day.

	%	95% CI
Did you get a flu shot last fall or winter? (n=4,090)		
Yes (n=1,592)	36.7	[34.8,38.6]
No (n=2,463)	62.4	[60.4,64.3]
Don't know (n=35)	0.9	[0.6,1.5]

In the last 7 days, how many days did you exercise for at least 20 minutes? (n=4,089)		
Every day (n=1,392)	31.9	[30.1,33.7]
3-6 days (n=1,334)	33.5	[31.6,35.4]
1-2 days (n=606)	15.9	[14.4,17.4]
0 days (n=746)	18.4	[17.0,20.0]
Don't know (n=11)	0.3	[0.1,0.6]
In the last 7 days, how many days did you drink sugary drinks, like soda or pop, sweetened fruit drinks, sports drinks, or energy drinks? (n=4,088)		
Every day (n=1,281)	32.4	[30.6,34.3]
3-6 days (n=688)	18.7	[17.2,20.4]
1-2 days (n=886)	21.4	[19.8,23.0]
0 days (n=1,231)	27.4	[25.8,29.2]
Don't know (n=2)	0.1	[0.0,0.3]
In the last 7 days, how many days did you eat 3 or more servings of fruits or vegetables in a day? (n=4,087)		
Every day (n=1,609)	37.5	[35.6,39.4]
3-6 days (n=1,374)	33.6	[31.8,35.5]
1-2 days (n=603)	16.4	[15.0,18.0]
0 days (n=476)	11.8	[10.5,13.1]
Don't know (n=25)	0.7	[0.4,1.1]

About half of respondents reported talking with a health professional about exercise (48.6%) and diet and nutrition (49.8%) in the past 12 months. Among those who reported binge drinking behavior in the past seven days, 30.3% reported talking to a health professional about safe alcohol use.

	%	95% CI
In the last 12 months, has a doctor, nurse, or other health professional talked with you about exercise? (n=4,090)		
Yes (n=2,091)	48.6	[46.7,50.6]
No (n=1,983)	50.9	[48.9,52.9]
Don't know (n=16)	0.4	[0.2,1.0]
In the last 12 months, has a doctor, nurse, or other health professional talked with you about diet and nutrition? (n=4,089)		
Yes (n=2,107)	49.8	[47.8,51.8]
No (n=1,966)	49.7	[47.7,51.7]
Don't know (n=16)	0.5	[0.2,1.1]
In the last 7 days, on how many days did you have 5 or more alcoholic drinks (males) or 4 or more alcoholic drinks (females)? (n=4,087)		
Every day (n=43)	1.1	[0.8,1.6]
3-6 days (n=145)	4.0	[3.3,4.9]
1-2 days (n=556)	14.5	[13.1,16.0]
0 days (n=3,341)	80.3	[78.7,81.9]
Don't know (n=2)	0.1	[0.0,0.4]

[If response other than 0 days] In the last 12 months, has a doctor, nurse, or other health professional talked with you about safe alcohol use? (n=747)		
Yes (n=234)	30.3	[26.3,34.6]
No (n=511)	69.6	[65.2,73.6]
Don't know (n=2)	0.1	[0.0,0.6]

More than one-third (37.7%) of survey respondents reported smoking or using tobacco in the past thirty days. Among those who smoked or used tobacco in the past thirty days, 75.2% reported wanting to quit. Of those who said they would like to quit smoking or using tobacco, 90.7% reported working on cutting back or quitting right now. Among those currently working on quitting or reducing tobacco use, over half (54%) of respondents reported receiving advice or assistance from a health professional or health plan on how to quit in the past 12 months.

	%	95% CI
In the last 30 days, have you smoked or used tobacco? (n=4,089)		
Yes (n=1,533)	37.7	[35.9,39.7]
No (n=2,556)	62.3	[60.3,64.1]
[If Yes] Do you want to quit smoking or using tobacco? (n=1,530)		
Yes (n=1,186)	75.2	[72.0,78.1]
No (n=319)	23.3	[20.4,26.4]
Don't know (n=25)	1.5	[0.9,2.5]
[If Yes] Are you working on cutting back or quitting right now? (n=1,186)		
Yes (n=1,059)	90.7	[88.7,92.4]
No (n=124)	9.1	[7.4,11.1]
Don't know (n=3)	0.2	[0.1,0.8]
In the past 12 months, did you receive any advice or assistance from a health professional or your health plan on how to quit smoking? (n=1,531)		
Yes (n=877)	54.0	[50.8,57.3]
No (n=644)	45.4	[42.2,48.7]
Don't know (n=10)	0.5	[0.3,1.1]

Few (5.9%) survey respondents reported using drugs or medications in the past 30 days to affect mood or aid in relaxation. Among those who reported using drugs or medications for mood or to aid in relaxation, 52.9% used these drugs or medications almost every day. More than one-third (37.1%) of respondents who used these drugs sometimes or every day reported speaking with a health professional about the use of these drugs or medications.

	%	95% CI
In the last 30 days, have you used drugs or medications to affect your mood or help you relax? This includes prescription drugs taken differently than how you were told to take them, as well as street drugs. (n=4,086)		
Yes (n=222)	5.9	[5.1,7.0]
No (n=3,862)	94.0	[92.9,94.9]
Don't know (n=2)	0.1	[0.0,0.3]

[If Yes] How often? Would you say Almost every day, Sometimes, Rarely, or Never? (n=222)		
Almost every day (n=115)	52.9	[44.4,61.2]
Sometimes (n=64)	28.6	[21.6,36.9]
Rarely (n=41)	17.6	[12.0,25.0]
Never (n=2)	0.9	[0.2,3.8]
[If 'Sometimes' or 'Almost every day'] In the last 12 months, has a doctor, nurse, or other health professional talked with you about your use of these drugs or medications? (n=179)		
Yes (n=77)	37.1	[29.2,45.7]
No (n=102)	62.9	[54.3,70.8]

Regular Source of Care and Primary Care Utilization Prior to HMP

In the 12 months prior to HMP enrollment, about three-quarters (73.8%) of survey respondents reported having a place they would usually go for a checkup, when they felt sick, or when they wanted advice about their health and 24% of survey respondents reported not having a regular source of care. Among respondents who reported having a place that they would go for health care in the 12 months prior to HMP enrollment, a doctor's office (47.9%) was the most common place reported, while 16.2% reported the emergency room as their usual place for care. Many (40.1%) survey respondents had not had a primary care visit in the year before HMP enrollment and more than one-fifth (20.6%) had not had a primary care visit in five years or more.

	%	95% CI
In the 12 months before enrolling in the Healthy Michigan Plan, was there a place that you usually would go to for a checkup, when you felt sick, or when you wanted advice about your health? (n=4,084)		
Yes (n=3,051)	73.8	[72.0,75.5]
No (n=955)	24.0	[22.4,25.8]
NA (n=73)	2.1	[1.5,2.8]
Don't know (n=5)	0.1	[0.1,0.4]
[If Yes] What kind of place was it? (n=3,051)		
Doctor's office (n=1,498)	47.9	[45.7,50.2]
Clinic (n=557)	17.2	[15.5,18.9]
Urgent care/walk-in (n=529)	16.8	[15.2,18.6]
Emergency room (n=409)	16.2	[14.6,18.1]
Other place (n=56)	1.8	[1.3,2.4]
Don't know (n=2)	0.1	[0.0,0.2]
Before you enrolled in the Healthy Michigan Plan, about how long had it been since you had a primary care visit? (n=4,086)		
Less than 1 year before HMP (n=1,647)	40.1	[38.2,42.1]
1 to 5 years (n=1,577)	37.8	[35.9,39.7]
More that 5 years (n=813)	20.6	[19.0,22.2]
Don't know (n=49)	1.5	[1.0,2.1]

Regular Source of Care and Primary Care Utilization with HMP

Most (92.2%) survey respondents indicated that in the past 12 months of HMP enrollment there is a place they usually go when they need a checkup, feel sick, or want advice about their health. A doctor's office (75.2%) was the most common place respondents went to for health care in the 12 months enrolled in HMP and just 1.7% reported the emergency room. Among those who usually go to a doctor's office or clinic for health care, 60.6% reported that this is not the same place they went prior to HMP enrollment. Among respondents who reported going to a doctor's office or clinic for their health care, most (96.7%) respondents said this was their primary care provider (PCP) through their HMP coverage. Among the respondents who chose urgent care or the emergency room as their usual place for care while enrolled in HMP, 32.4% said they did not have a PCP through HMP. Among those respondents who used urgent care or the emergency room as their usual place of care and who had a PCP through HMP, about half (49.1%) chose their provider and about half (49.4%) said their plan assigned one.

	%	95% CI
In the last 12 months, is there a place you usually go when you need a checkup, feel sick, or want advice about your health? (n=4,088)		
Yes (n=3,850)	92.2	[90.8,93.4]
No (n=194)	6.2	[5.2,7.4]
NA (n=44)	1.6	[1.0,2.4]
[If Yes] What kind of a place was it? (n=3,850)		
Doctor's office (n=2,934)	75.2	[73.4,77.0]
Clinic (n=640)	16.5	[15.0,18.1]
Urgent care/walk-in (n=181)	5.8	[4.8,6.9]
Emergency room (n=65)	1.7	[1.3,2.2]
Other place (n=29)	0.8	[0.5,1.2]
Don't know (n=1)	0.0	[0.0,0.2]
[If Doctor's Office or Clinic] Is this the same place where you went before you enrolled in Healthy Michigan? (n=3,551)		
Yes (n=1,438)	39.3	[37.3,41.4]
No (n=2,111)	60.6	[58.5,62.6]
Don't know (n=2)	0.1	[0.0,0.3]
[If Doctor's Office or Clinic] And is this your primary care provider for your Healthy Michigan Plan Coverage? (n=3,552)		
Yes (n=3,438)	96.7	[95.8,97.4]
No (n=103)	3.1	[2.4,3.9]
Don't know (n=11)	0.2	[0.1,0.5]
[If the place they usually go for care is NOT their PCP --OR-- usual source of care is urgent care/walk-in clinic or the ER] Do you have a primary care provider through your Healthy Michigan Plan coverage? (n=652)		
Yes (n=418)	63.6	[58.7,68.3]
No (n=208)	32.4	[27.9,37.3]
Don't know (n=26)	3.9	[2.5,6.2]

[If Yes] Did you choose your primary care provider or did your plan assign you to one? (n=216)		
Chose my PCP (n=103)	49.1	[40.3,58.0]
Plan assigned my PCP (n=109)	49.4	[40.5,58.3]
Don't know (n=4)	1.5	[0.5,4.5]

The majority (85.2%) of respondents who reported having a PCP indicated that they saw their PCP in the past 12 months. For survey respondents who reported not seeing their PCP in the previous 12 months while enrolled in HMP, the most common reason given was that they were healthy and did not need to see a provider. Most (91.1%) respondents who had seen their PCP reported talking about things they can do to be healthy and prevent medical problems. Among those who had seen their PCP, 83.9% said it was easy or very easy to get an appointment to see their PCP. For those who said it was difficult or very difficult to schedule an appointment, the most common reason for this difficulty was not getting an appointment soon enough.

	%	95% CI
Have you seen your primary care provider in the past 12 months? (n=3,851)		
Yes (n=3,386)	85.2	[83.5,86.7]
No (n=453)	14.5	[13.0,16.2]
Don't know (n=12)	0.3	[0.2,0.6]
[If Yes] Did you and the primary care provider talk about things you can do to be healthy and prevent medical problems? (n=3,386)		
Yes (n=3,131)	91.1	[89.6,92.3]
No (n=243)	8.5	[7.3,9.9]
Don't know (n=12)	0.4	[0.2,0.9]
In the last 12 months, how easy or difficult was it to get an appointment to see your primary care provider? (n=3,386)		
Very easy (n=1,432)	41.9	[39.8,44.0]
Easy (n=1,443)	42.0	[39.9,44.1]
Neutral (n=274)	8.9	[7.7,10.3]
Difficult (n=166)	4.8	[4.0,5.8]
Very Difficult (n=69)	2.3	[1.7,3.1]
Don't know (n=2)	0.1	[0.0,0.4]
[If Difficult or Very Difficult] What made it difficult? (n=235)		
Couldn't get an appointment soon enough (n=195)	84.0	[77.8,88.8]
Inconvenient hours (n=46)	18.5	[13.3,25.2]
Couldn't get through on the telephone (n=21)	7.7	[4.6,12.7]
Transportation (n=12)	3.7	[1.9,6.9]
Other (n=15)	9.0	[4.8,16.4]

[If No - Have not seen PCP in past 12 months] Why not?* (n=452)		
Healthy/didn't need to see doctor (n=274)	63.4	[57.6,68.8]
Couldn't get appointment (n=37)	7.0	[4.8,10.0]
Transportation difficulties/too far (n=23)	5.5	[3.3,9.1]
See a specialist instead (n=19)	4.2	[2.2,7.6]
Don't like my PCP/staff (n=18)	3.9	[2.3,6.5]
Inconvenient hours (n=10)	3.0	[1.3,6.8]
Don't like doctors in general (n=8)	1.5	[0.6,3.4]
Other (n=149)	30.6	[25.6,36.3]
Don't know (n=3)	0.5	[0.1,1.5]

**Respondents were able to provide more than one response for this question; As a result, percentages may exceed 100%.*

Primary Care Utilization and Experience

Beneficiaries who were older, white, female, reported worse health, and had any chronic condition were more likely than other beneficiaries to have seen a PCP in the past 12 months. Ethnicity, employment, income and marital status were not associated with likelihood of PCP visit in past 12 months (See Appendix Table 2).

Respondents who reported a PCP visit within the previous 12 months, compared to those who did not, were more likely to report improvement in access to specialty care, help with staying healthy, and cancer screening. Respondents who reported a PCP visit within the previous 12 months, compared to those who did not, were more likely to report completing an HRA, being counseled about exercise, nutrition, tobacco cessation (for those who used tobacco) and being counseled about safe alcohol use (for those who reported unsafe alcohol intake). Respondents who reported a PCP visit within the previous 12 months, compared to those who did not, were more likely to report being diagnosed with a chronic condition since enrollment in HMP (See Appendix Table 3).

Foregone Care Prior to HMP

One-third (33%) of respondents reported not getting the health care they needed in the 12 months prior to HMP enrollment. The most common reasons for not getting the care they needed prior to HMP were being worried about the cost (77.5%) and not having health insurance (67.4%).

	%	95% CI
In the 12 months before enrolling in the Healthy Michigan Plan, was there any time when you didn't get the health care services you needed? (n=4,084)		
Yes (n=1,409)	33.0	[31.2,34.8]
No (n=2,638)	65.9	[64.0,67.7]
Don't know (n=37)	1.1	[0.8,1.7]

[If Yes] Why didn't you get the care you needed?* (n=1,409)		
You were worried about the cost (n=1,121)	77.5	[74.5,80.2]
You did not have health insurance (n=927)	67.4	[64.2,70.4]
Your health plan wouldn't pay for the treatment (n=105)	7.9	[6.3,9.8]
The doctor or hospital wouldn't accept your health insurance (n=60)	4.0	[3.0,5.4]
You couldn't get an appointment soon enough (n=54)	3.5	[2.6,4.8]
You didn't have transportation (n=36)	2.7	[1.9,4.0]
Other (n=99)	7.3	[5.7,9.4]
Don't know (n=6)	0.5	[0.2,2.0]
Other (write-in): Respondent did not have a doctor (n=24)	1.2	[0.8,1.9]
Other (write-in): Respondent was not satisfied with the care they received (n=19)	1.1	[0.6,1.9]

**Respondents were able to provide more than one response for this question; As a result, percentages may exceed 100%.*

Foregone Care with HMP

Over one-fifth (22%) of survey respondents reported that there was a time when they needed help or advice when their usual clinic or doctor's office was closed. Among these respondents, 46.8% said they tried to contact their provider's office after they were closed to get help or advice. Among those who tried to contact their provider's office after it was closed, 56.5% said they were able to talk to someone. Among respondents who did not contact their provider's office when they needed help or advice, the main reason for not contacting them was because the office was closed.

	%	95% CI
In the last 12 months was there a time when you needed help or advice when your usual clinic or doctor's office was closed? (n=4,063)		
Yes (n=916)	22.0	[20.4,23.6]
No (n=3,132)	77.6	[76.0,79.1]
Don't know (n=15)	0.4	[0.2,0.9]
[If Yes] In the most recent case, did you try to contact your provider's office after they were closed to get help or advice? (n=916)		
Yes (n=429)	46.8	[42.8,50.7]
No (n=484)	52.7	[48.7,56.7]
[If Yes] Were you able to talk to someone? (n=428)		
Yes (n=243)	56.5	[50.6,62.2]
No (n=184)	43.0	[37.3,48.9]
Don't know (n=1)	0.5	[0.1,3.2]

[If No-Did not try to contact provider's office] Why didn't you try to contact your provider's office?* (n=488)		
It was closed (n=347)	69.5	[64.2,74.3]
I felt it was an emergency and went to ER/ called 911 (n=78)	15.6	[12.1,19.9]
Decided to wait to see if condition resolved (n=31)	6.5	[4.3,9.8]
Unsure how to contact provider (n=3)	1.2	[0.3,4.5]
Other (n=99)	21.8	[17.5,26.9]
Don't know (n=9)	1.8	[0.8,3.6]

**Respondents were able to provide more than one response for this question; As a result, percentages may exceed 100%.*

Among all survey respondents, 15.6% said that in the past 12 months there was a time when they did not get the medical or dental care they needed. The most common reasons for not getting the care they needed with HMP were because their health plan would not pay for the treatment (39.6%) and being worried about the cost (25.4%). Those who cited a reason other than the options supplied for not getting the medical or dental care they needed often reported that dental procedures such as crowns and root canals are not covered and indicated that it was difficult to find a dentist who accepted their insurance. Among respondents who did not get needed care because they could not afford it, 63.2% reported dental care as the type of care they wanted.

	%	95% CI
In the last 12 months, was there any time when you didn't get the medical or dental care you needed? (n=4,084)		
Yes (n=629)	15.6	[14.3,17.1]
No (n=3,433)	84.0	[82.5,85.3]
Don't know (n=22)	0.4	[0.2,0.6]
[If Yes] Why didn't you get the care you needed?* (n=629)		
Your health plan wouldn’t pay for the treatment (n=251)	39.6	[34.9,44.5]
You were worried about the cost (n=155)	25.4	[21.3,29.9]
The doctor or hospital wouldn’t accept your health insurance (n=141)	23.9	[19.8,28.5]
You couldn’t get an appointment soon enough (n=73)	11.5	[8.7,14.9]
You did not have health insurance (n=41)	8.5	[5.8,12.4]
You didn’t have transportation (n=30)	6.1	[3.9,9.4]
Other (n=199)	29.8	[25.6,34.4]

[If Yes - 'Your health plan wouldn't pay for the treatment', 'You were worried about the cost', 'The doctor or hospital wouldn't accept your health insurance', OR 'You did not have health insurance'] Was there any time in the last 12 months when you needed or wanted any of the following but could not afford it?* (n=393)		
Dental care (including check-ups) (n=252)	63.2	[57.0,69.0]
To see a specialist (n=79)	21.7	[16.8,27.5]
Prescription medication [not over the counter] (n=72)	19.9	[15.3,25.5]
A checkup, physical or wellness visit (n=47)	13.3	[9.6,18.2]
Mental health care or counseling (n=30)	8.9	[5.8,13.3]
Substance use treatment services (n=2)	0.7	[0.2,2.6]
Other (n=49)	13.0	[9.2,17.9]
NONE (n=28)	5.6	[3.8,8.3]
Don't know (n=1)	0.2	[0.0,1.7]

**Respondents were able to provide more than one response for this question; As a result, percentages may exceed 100%.*

Changes in Access to Care

Many respondents reported greater ability to get prescription medications (59.3%), primary care (57.8%), help staying healthy or preventing health problems (52%), dental care (46.1%), specialist care (44.4%), mental health care (27.5%), and cancer screening (25.7%) after enrolling in HMP compared to before they had HMP coverage. About half (46.7%) of respondents did not know if their ability to get mental health care through HMP was better, worse, or about the same as compared to before enrolling in HMP, though only 2.5% reported that it was worse. The majority (80.7%) of respondents did not know if their ability to get substance use treatment services through HMP was better, worse, or about the same compared to before enrolling in HMP though only 0.2% reported that it was worse. While most (58.6%) respondents did not know if their ability to get cancer screening though HMP was better, worse, or about the same compared to before HMP, 25.7% said it was better. The majority (71%) of respondents also said they did not know if their ability to get birth control/family planning services through HMP is better, worse, or the about the same compared to before HMP.

	%	95% CI
Would you say that your ability to get primary care through the Healthy Michigan Plan is better, worse, or about the same, compared to before? (n=4,085)		
Better (n=2,381)	57.8	[55.8,59.7]
Worse (n=93)	2.4	[1.9,3.1]
About the same (n=1,483)	35.9	[34.0,37.8]
Don't know (n=128)	3.9	[3.1,4.9]

Would you say that your ability to get specialist care through the Healthy Michigan Plan is better, worse, or about the same, compared to before? (n=4,085)		
Better (n=1,901)	44.4	[42.5,46.4]
Worse (n=177)	4.2	[3.5,5.1]
About the same (n=911)	22.6	[21.0,24.3]
Don't know (n=1,096)	28.7	[26.9,30.6]
Would you say that your ability to get dental care through the Healthy Michigan Plan is better, worse, or about the same, compared to before? (n=4,084)		
Better (n=1,930)	46.1	[44.1,48.0]
Worse (n=255)	6.2	[5.4,7.3]
About the same (n=1,138)	29.3	[27.5,31.2]
Don't know (n=761)	18.4	[16.9,19.9]
Would you say that your ability to get mental health care through the Healthy Michigan Plan is better, worse, or about the same, compared to before? (n=4,084)		
Better (n=1,077)	27.5	[25.8,29.3]
Worse (n=97)	2.5	[1.9,3.2]
About the same (n=923)	23.3	[21.6,25.0]
Don't know (n=1,987)	46.7	[44.8,48.7]
Would you say that your ability to get substance use treatment services through the Healthy Michigan Plan is better, worse, or about the same, compared to before? (n=4,083)		
Better (n=341)	9.8	[8.6,11.1]
Worse (n=9)	0.2	[0.1,0.4]
About the same (n=319)	9.3	[8.1,10.6]
Don't know (n=3,414)	80.7	[79.0,82.3]
Would you say that your ability to get prescription medications through the Healthy Michigan Plan is better, worse, or about the same, compared to before? (n=4,085)		
Better (n=2,497)	59.3	[57.4,61.3]
Worse (n=121)	3.1	[2.5,3.9]
About the same (n=1,017)	25.9	[24.2,27.7]
Don't know (n=450)	11.6	[10.4,13.0]
Would you say that your ability to get cancer screening through the Healthy Michigan Plan is better, worse, or about the same, compared to before? (n=4,084)		
Better (n=1,156)	25.7	[24.1,27.5]
Worse (n=26)	0.6	[0.4,1.0]
About the same (n=627)	15.0	[13.7,16.5]
Don't know (n=2,275)	58.6	[56.7,60.5]

Would you say that your ability to get help with staying healthy or preventing health problems through the Healthy Michigan Plan is better, worse, or about the same, compared to before? (n=4,084)		
Better (n=2,142)	52.0	[50.0,53.9]
Worse (n=48)	1.1	[0.8,1.5]
About the same (n=1,338)	32.5	[30.7,34.3]
Don't know (n=556)	14.5	[13.2,16.0]
Would you say that your ability to get birth control/family planning services through the Healthy Michigan Plan is better, worse, or about the same, compared to before? (n=4,082)		
Better (n=568)	16.1	[14.6,17.7]
Worse (n=16)	0.5	[0.3,0.8]
About the same (n=472)	12.4	[11.1,13.8]
Don't know (n=3,026)	71.0	[69.1,72.8]

Emergency Room Use with HMP

Over one-third (37.6%) of survey respondents reported going to a hospital emergency room (ER) for care in the past 12 months. Of those who went to the ER in the past 12 months, 83.8% felt that the problem needed to be handled in the ER. Over one-quarter (28.0%) of respondents with an ER visit in the past 12 months said they tried to contact their usual provider's office to get help or advice before going to the ER. Among those who tried to contact their provider, 76.6% reported talking to someone. Among those who talked to someone from their provider's office before going to the ER, the most common reason for going to the ER was because the provider said to go (75.7%).

	%	95% CI
During the past 12 months, did you go to a hospital emergency room about your own health (whether or not you were admitted overnight)? (n=4,090)		
Yes (n=1,456)	37.6	[35.7,39.6]
No (n=2,611)	61.8	[59.8,63.7]
Don't know (n=23)	0.6	[0.3,1.0]
[If Yes] Thinking about the last time you were at the emergency room, did you think your problem needed to be handled in the emergency room? (n=1,455)		
Yes (n=1,249)	83.8	[81.1,86.2]
No (n=186)	14.9	[12.6,17.6]
Don't know (n=20)	1.2	[0.8,2.0]
Thinking about the last time you were at the emergency room, did you try to contact your usual provider's office to get help or advice before going to the emergency room? (n=1,456)		
Yes (n=424)	28.0	[25.2,30.9]
No (n=1,025)	71.7	[68.7,74.5]
Don't know (n=7)	0.3	[0.1,0.8]

[If Yes] Did you talk to someone? (n=424)		
Yes (n=319)	76.6	[71.3,81.2]
No (n=105)	23.4	[18.8,28.7]
[If Yes] Why did you end up going to the ER?* (n=319)		
Provider said to go to the ER (n=250)	75.7	[68.9,81.5]
Symptoms didn't improve or got worse (n=36)	14.3	[9.6,20.9]
You could get an appointment soon enough (n=33)	8.0	[5.4,11.8]
Provider advice wasn't helpful (n=12)	3.0	[1.6,5.5]
No response from the provider (n=5)	2.1	[0.7,6.2]
Other (n=51)	16.5	[11.9,22.5]
Don't know (n=2)	0.3	[0.1,1.2]

**Respondents were able to provide more than one response for this question; As a result, percentages may exceed 100%.*

Among respondents who did not try to contact their provider before going to the ER: 20% arrived to the ER by ambulance, 74.8% went to the ER because it was the closest place to receive care, 18.5% went because they get most of their care at the ER, 64.3% felt the problem was too serious for a doctor's office or clinic, 63.6% reported their usual clinic was closed, and 25.4% said they needed to get care at a time that would not make them to miss school or work.

	%	95% CI
[If No - Did not try to contact usual provider's office before going to the ER] Which of these were true of this particular ER visit? (n=978)		
You arrived by ambulance or other emergency vehicle		
Yes (n=191)	20.0	[17.0,23.3]
No (n=787)	80.0	[76.7,83.0]
You went to the ER because it´s your closest place to receive care		
Yes (n=724)	74.8	[71.4,78.0]
No (n=245)	24.3	[21.2,27.7]
You went to the ER because you get most of your care at the emergency room		
Yes (n=156)	18.5	[15.5,22.0]
No (n=818)	80.8	[77.4,83.9]
Don't know (n=4)	0.6	[0.2,1.8]
The problem was too serious for a doctor's office or clinic		
Yes (n=657)	64.3	[60.3,68.1]
No (n=294)	32.9	[29.2,36.8]
Don't know (n=27)	2.8	[1.6,4.9]
Your doctor´s office or clinic was not open		
Yes (n=628)	63.6	[59.8,67.3]
No (n=297)	30.8	[27.3,34.5]
Don't know (n=52)	5.6	[3.9,7.8]

You needed to get care at a time that would not make you miss work or school		
Yes (n=240)	25.4	[22.1,29.1]
No (n=721)	72.7	[68.9,76.1]
Don't know (n=17)	1.9	[1.1,3.4]

About two-thirds (64.0%) of all respondents said they are more likely to contact their usual provider before going to the ER compared to before HMP.

	%	95% CI
In general, compared to before you had the Healthy Michigan Plan, are you more likely, less likely, or about as likely to contact your usual doctor's office before going to the emergency room? (n=4,081)		
More likely (n=2,722)	64.0	[62.1,65.9]
Less likely (n=289)	8.3	[7.2,9.6]
About as likely (n=910)	23.5	[21.8,25.2]
Don't know (n=160)	4.2	[3.4,5.0]

**Respondents were able to provide more than one response for this question; As a result, percentages may exceed 100%.*

Impact of HMP on Acute Care Seeking

Respondents who used the ER were more likely than those who did not use the ER to report their health as fair/poor (40.1% vs. 23.2%) and less likely to report excellent/very good health (59.9% vs. 76.8%) (See Appendix Table 4). Respondents who used the ER reported chronic physical or mental health conditions more often than those who did not use the ER (79.4% vs. 62.8%) (See Appendix Table 5).

Impact of HMP on Employment, Education and Ability to Work

While most (78.3%) respondents who were students indicated that the number of days they missed school in the past year was about the same compared to the 12 months before HMP enrollment, 16.5% reported that they missed fewer days in the past year compared to the 12 months before. Among employed or self-employed respondents, 69.4% felt that getting health coverage through HMP helped them do a better job at work. Among respondents who were employed or self-employed, 27.6% reported changing jobs in the past 12 months. Among those who changed jobs in the past 12 months, 36.9% felt that having health coverage through HMP helped them get a better job. For those out of work for less than or more than a year, 54.5% of respondents felt that having HMP made them better able to look for a job.

	Mean or %	95% CI
[If a student] In the past 12 months, about how many days did you miss school because of illness or injury (do not include maternity leave)? (n=159)	Mean 2.9	[1.5,4.3]
Compared to the 12 months before this time, was this more, less, or about the same? (n=160)		
More (n=8)	4.4	[2.0,9.7]
Less (n=27)	16.5	[10.2,25.5]
About the same (n=124)	78.3	[69.1,85.4]
Don't know (n=1)	0.8	[0.1,5.3]
[If employed/self-employed or out of work for less than a year] In the past 12 months, about how many days did you miss work at a job or business because of illness or injury (do not include maternity leave)? (n=2,309)	Mean 7.5	[6.1,9.0]
Compared to the 12 months before this time, was this more, less, or about the same? (n=2,331)		
More (n=299)	12.7	[11.1,14.4]
Less (n=384)	16.6	[14.7,18.6]
About the same (n=1,611)	68.7	[66.2,71.0]
Don't know (n=37)	2.1	[1.3,3.2]
[If employed or self-employed] Has getting health insurance through the Healthy Michigan Plan helped you do a better job at work? (n=2,077)		
Yes (n=1,431)	69.4	[66.8,71.8]
No (n=549)	25.9	[23.6,28.4]
Don't know (n=97)	4.7	[3.7,6.0]
Have you changed jobs in the last 12 months? (n=1,979)		
Yes (n=447)	27.6	[24.9,30.4]
No (n=1,531)	72.3	[69.5,75.0]
Don't know (n=1)	0.1	[0.0,0.6]
[If Yes] Having health insurance through the Healthy Michigan Plan helped me get a better job. (n=447)		
Strongly agree (n=33)	7.7	[5.0,11.6]
Agree (n=123)	29.2	[23.6,35.4]
Neutral (n=103)	21.5	[17.1,26.7]
Disagree (n=150)	33.5	[27.8,39.6]
Strongly disagree (n=30)	6.4	[4.2,9.6]
Don't know (n=8)	1.8	[0.8,4.0]

[If out of work for less than or more than a year] Having healthy insurance through the Healthy Michigan Plan has made me better able to look for a job. (n=957)		
Strongly agree (n=158)	16.2	[13.5,19.3]
Agree (n=389)	38.3	[34.6,42.2]
Neutral (n=185)	19.3	[16.1,22.9]
Disagree (n=143)	17.2	[14.0,20.8]
Strongly disagree (n=35)	3.5	[2.4,5.2]
Don't know (n=47)	5.5	[3.9,7.7]
[If homemaker, retired, or unable to work] In the past 12 months, about how many days were you unable to do your activities because of illness or injury? (n=809)	Mean 135.4	[122.2,148.6]
Compared to the 12 months before this time, was this more, less, or about the same? (n=859)		
More (n=151)	18.6	[15.4,22.2]
Less (n=131)	16.8	[13.7,20.6]
About the same (n=551)	61.2	[56.8,65.3]
Don't know (n=26)	3.4	[2.1,5.5]

Compared to employed enrollees, enrollees who were out of work or unable to work were more likely to be older (27.5% of out of work enrollees and 42.1% unable to work enrollees vs. 20.0% of employed enrollees were aged 51-64), male (57.2% of out of work enrollees and 53.9% of unable to work enrollees vs. 45.5% of employed enrolles were male), lower income (79.1% of out of work enrollees and 73.8% of unable to work enrollees vs. 33.7% of employed enrollees had incomes that were 0-35% FPL), veterans (3.9% of out of work enrollees and 5.9% of unable to work enrollees vs. 2.3% of employed enrollees), in fair/poor health (33.7% of out of work enrollees and 73.4% of unable to work enrollees vs. 19.6% of employed enrollees), and with chronic physical or mental health conditions (65.1% of out of work enrollees and 87.5% of unable to work enrollees vs. 53.8% of employed enrollees had physical health conditions; 35.3% of out of work enrollees and 61.7% of unable to work enrollees vs. 25.2% of employed enrollees had mental health conditions) or limitations (24.4% of out of work enrollees and 68.8% of unable to work enrollees vs. 13.3% of employed enrollees had physical impariments; 25.0% of out of work enrollees and 48.4% of unable to work enrollees vs. 11.6% of employed enrollees had mental impairments) (See Appendix Table 9).

HMP enrollees were more likely to be employed if their health status was excellent, very good, or good vs. fair or poor (56.1% vs. 32.3%) or if they had no chronic conditions (59.8% vs. 44.1%) (See Appendix Tables 11 and 12). Employed respondents missed a mean of 7.2 work days in the past year due to illness. 68.4% said this was about the same as before HMP, 17.2% said less and 12.3% said more (See Appendix Table 13).

Enrollees were 1.7 times more likely to report being out of work if aged 51-64, 1.8 times as likely if male, 1.9 times as likely if African-American, 1.5 times as likely if in fair/poor health, 1.5 times as likely if with mental health conditions, or functional limitations (1.4 times as likely if

with physical limitation; 2.0 times as likely if with mental limitation). Enrollees were more likely to report being unable to work if older (2.3 times more likely for 35-50-year-olds, 4.2 times more likely for 51-64-year-olds), 1.9 times as likely if male, 3.5 times as likely if in fair/poor health, 1.7 times as likely if with with chronic physical health conditions, 2.6 times as likely if with chronic mental health condition, or functional limitations (5.1 times as likely if they reported a physical limitation; 2.3 times as likely if they reported a mental limitation) (See Appendix Table 14).

Employed enrollees with improved physical or mental health since HMP enrollment were 4.1 times more likely to report that HMP helped them to do a better job at work (See Appendix Table 15). Enrollees who were out of work with improved physical or mental health since HMP enrollment were 2.8 times more likely to report that HMP made them better able to look for a job. Enrollees who had a recent job change and improved physical or mental health since HMP enrollment were 3.2 times more likely to report that HMP helped them get a better job (See Appendix Table 16).

Impact of HMP on Access to Dental Care and Oral Health

Better access to dental care since HMP was reported by 46.1% of respondents, with students and younger respondents less likely to report better access (See Appendix Table 18). Improved oral health of their teeth and gums was reported by 39.5% of respondents, with students and younger respondents most likely to report no change in their oral health (See Appendix Table 20).

Survey respondents who were aware of their HMP dental coverage were significantly more likely to report improved access to dental care and improved oral health since HMP compared to those who were unaware (See Appendix Table 21). Among survey respondents who reported foregoing needed medical or dental care due to cost since HMP, 63.2% reported foregoing dental care. Foregone care varied by both employment status and region (See Appendix Table 19).

Among those who reported better access to dental care, 51.2% strongly agreed or agreed that HMP helped them to get a better job, 61.5% strongly agreed or agreed that HMP helped them to look for a job; and 77.8% reported doing a better job at work; all of these were significantly greater than responses for those who reported no change or worse access to dental care. Among those who reported better access to dental care, 67.9% reported improved oral health, significantly greater than those who reported no change or worse access to dental care. There was no significant impact of better access to dental care with HMP on ER use in the past year (See Appendix Table 22).

Perspectives on HMP Coverage

The majority of survey respondents agreed that it is very important for them personally to have health insurance (97.4%), that they do not worry as much about something bad happening to

their health since HMP enrollment (69%), that having HMP has taken a lot of stress off of them (87.9%), that without HMP they would not be able to go to the doctor (83.3%), and that having HMP has helped them live a better life (89.2%).

	%	95% CI
It is very important for me personally to have health insurance. (n=4,084)		
Strongly agree (n=1,892)	44.6	[42.6,46.5]
Agree (n=2,101)	52.8	[50.8,54.8]
Neutral (n=43)	1.3	[0.9,2.0]
Disagree (n=43)	1.2	[0.8,1.8]
Strongly disagree (n=4)	0.1	[0.0,0.3]
Don't know (n=1)	0.0	[0.0,0.1]
I don't worry as much about something bad happening to my health since enrolling in the Healthy Michigan Plan. (n=4,081)		
Strongly agree (n=700)	17.0	[15.6,18.5]
Agree (n=2,142)	52.0	[50.0,54.0]
Neutral (n=352)	8.8	[7.8,9.9]
Disagree (n=764)	18.8	[17.3,20.3]
Strongly disagree (n=78)	2.2	[1.6,2.8]
Don't know (n=45)	1.3	[0.9,1.9]
Having the Healthy Michigan Plan has taken a lot of stress off me. (n=4,087)		
Strongly agree (n=1,147)	26.0	[24.4,27.7]
Agree (n=2,495)	61.9	[60.0,63.7]
Neutral (n=220)	6.5	[5.5,7.6]
Disagree (n=195)	4.7	[4.0,5.6]
Strongly disagree (n=15)	0.4	[0.2,0.7]
Don't know (n=15)	0.5	[0.3,0.9]
Without the Healthy Michigan Plan, I wouldn't be able to go to the doctor. (n=4,085)		
Strongly agree (n=1,212)	28.2	[26.5,29.9]
Agree (n=2,211)	55.1	[53.2,57.1]
Neutral (n=166)	4.1	[3.4,5.0]
Disagree (n=450)	11.2	[10.0,12.5]
Strongly disagree (n=31)	1.0	[0.7,1.5]
Don't know (n=15)	0.4	[0.2,0.7]
Having the Healthy Michigan Plan has helped me live a better life. (n=4,083)		
Strongly agree (n=1,067)	25.0	[23.4,26.8]
Agree (n=2,609)	64.2	[62.3,66.1]
Neutral (n=255)	6.9	[6.0,8.0]
Disagree (n=119)	3.0	[2.4,3.7]
Strongly disagree (n=13)	0.3	[0.2,0.5]
Don't know (n=20)	0.6	[0.3,1.1]

Knowledge and Understanding of HMP Coverage

There were some gaps in knowledge among survey respondents about the health care services covered by HMP. The majority of respondents knew that HMP covers routine dental visits (77.2%), eyeglasses (60.4%), and counseling for mental or emotional problems (56%). Only one-fifth (21.2%) were aware that HMP covers name brand as well as generic medications.

	%	95% CI
My Healthy Michigan Plan covers routine dental visits. (n=4,086)		
Yes (n=3,170)	77.2	[75.4,78.8]
No (n=175)	3.9	[3.3,4.7]
Don't know (n=741)	18.9	[17.3,20.6]
My Healthy Michigan Plan covers eyeglasses. (n=4,086)		
Yes (n=2,590)	60.4	[58.5,62.4]
No (n=314)	7.8	[6.8,9.0]
Don't know (n=1,182)	31.8	[29.9,33.7]
My Healthy Michigan Plan covers counseling for mental or emotional problems. (n=4,086)		
Yes (n=2,318)	56.0	[54.0,57.9]
No (n=104)	3.1	[2.4,3.9]
Don't know (n=1,664)	40.9	[39.0,42.9]
Only generic medicines are covered by my Healthy Michigan Plan. (n=4,085)		
Yes (n=1,451)	35.8	[33.9,37.7]
No (n=892)	21.2	[19.7,22.9]
Don't know (n=1,742)	43.0	[41.0,44.9]

The majority (83.2%) of respondents reported rarely or never needing help reading instructions, pamphlets, or other written material from a doctor, pharmacy or health plan.

	%	95% CI
How often do you need to have someone help you read instructions, pamphlets, or other written materials from a doctor, pharmacy, or health plan? (n=4,088)		
Never (n=3,031)	72.6	[70.8,74.3]
Rarely (n=413)	10.6	[9.5,12.0]
Sometimes (n=390)	10.6	[9.4,11.9]
Often (n=94)	2.4	[1.8,3.1]
Always (n=157)	3.7	[3.1,4.5]
Don't know (n=3)	0.0	[0.0,0.1]

Challenges Using HMP Coverage

Few (15.5%) survey respondents reported that they had questions or problems using their HMP coverage. Among those who had questions or problems, about half (47.7%) reported getting

help or advice. The most commonly reported sources of help were from a health plan hotline, someone at the doctor's office, and an option outside of the provided responses. Among those who reported an option other than the ones provided, common responses were getting help from a case worker or someone at the pharmacy. Most (74.2%) of those who reported receiving help said that they got an answer or solution to their question.

	%	95% CI
Have you had any questions or problems using your Healthy Michigan Plan insurance? (n=4,089)		
Yes (n=632)	15.5	[14.2,17.0]
No (n=3,449)	84.3	[82.8,85.7]
Don't know (n=8)	0.2	[0.1,0.3]
[If Yes] Did anyone give you help or advice? (n=632)		
Yes (n=324)	47.7	[42.8,52.5]
No (n=302)	51.2	[46.4,56.1]
Don't know (n=6)	1.1	[0.4,3.2]
[If Yes] Who helped you?* (n=324)		
Health Plan Hotline (n=100)	32.2	[26.3,38.8]
Someone at my doctor's office (n=83)	22.4	[17.6,28.2]
HMP Beneficiary Hotline (n=46)	14.7	[10.6,20.0]
Helpline (n=39)	13.9	[9.4,20.1]
Friend/Relative (n=9)	2.8	[1.4,5.5]
Community health worker (n=6)	1.4	[0.5,3.6]
Other (n=96)	29.8	[24.2,36.1]
Don't know (n=5)	2.1	[0.8,5.9]
Did you get an answer or solution to your question(s)? (n=324)		
Yes (n=238)	74.2	[68.0,79.5]
No (n=83)	24.7	[19.4,30.8]
Don't know (n=3)	1.1	[0.4,3.5]

**Respondents were able to provide more than one response for this question; As a result, percentages may exceed 100%.*

Out-of-Pocket Healthcare Spending Prior to HMP

In the 12 months prior to HMP enrollment, almost one-quarter (23.3%) of respondents spent more than $500 out of pocket for their own medical and dental care. In the 12 months prior to HMP enrollment, 44.7% of respondents reported having problems paying medical bills. Of those who reported having problems paying their medical bills, 67.1% reported being contacted by a collections agency and 30.7% thought about filing for bankruptcy. Among those who thought about it, 21.4% filed for bankruptcy.

	%	95% CI
During the 12 months BEFORE you were enrolled in HMP, about how much did you spend out-of-pocket for your own medical and dental care? (n=4,082)		
Less than $50 (n=1,696)	42.4	[40.4,44.3]
$51-100 (n=376)	8.9	[7.9,10.1]
$101-500 (n=954)	22.8	[21.2,24.6]
$501-2,000 (n=605)	14.3	[13.0,15.7]
$2,001-3,000 (n=153)	4.0	[3.3,5.0]
$3,001-5,000 (n=119)	2.7	[2.2,3.4]
More than $5,000 (n=91)	2.3	[1.8,3.0]
Don't know (n=88)	2.5	[1.9,3.3]
In the 12 months before enrolling in the Healthy Michigan Plan, did you have problems paying medical bills? (n=4,085)		
Yes (n=1,869)	44.7	[42.7,46.6]
No (n=2,196)	54.9	[52.9,56.8]
Don't know (n=20)	0.4	[0.3,0.7]
[If Yes] Because of these problems paying medical bills, have you or your family been contacted by a collections agency? (n=1,869)		
Yes (n=1,235)	67.1	[64.4,69.8]
No (n=618)	31.8	[29.2,34.6]
Don't know (n=16)	1.0	[0.5,2.0]
Because of these problems paying medical bills, have you or your family thought about filing for bankruptcy? (n=1,869)		
Yes (n=559)	30.7	[28.1,33.5]
No (n=1,304)	68.9	[66.2,71.6]
Don't know (n=6)	0.3	[0.1,0.8]
[If Yes] Did you file for bankruptcy? (n=559)		
Yes (n=128)	21.4	[17.6,25.9]
No (n=429)	77.7	[73.1,81.8]
Don't know (n=2)	0.8	[0.2,4.4]

Out-of-Pocket Healthcare Spending with HMP

In the past 12 months, the majority (63.2%) of respondents reported spending less than $50 out-of-pocket for their own medical or dental care. Among survey respondents who previously had problems paying their medical bills (in the 12 months prior to HMP), most (85.9%) felt that their problems paying medical bills have gotten better since enrolling in HMP.

	%	95% CI
During the last 12 months, about how much did you spend out-of-pocket for your own medical and dental care? (n=4,076)		
Less than $50 (n=2,540)	63.2	[61.3,65.1]
$51-100 (n=503)	11.8	[10.6,13.1]
$101-500 (n=705)	17.2	[15.7,18.8]
$501-2,000 (n=210)	4.7	[4.0,5.6]
$2,001-3,000 (n=33)	0.8	[0.5,1.3]
$3,001-5,000 (n=15)	0.3	[0.1,0.6]
More than $5,000 (n=10)	0.3	[0.1,0.6]
Don't know (n=60)	1.6	[1.2,2.3]
[If Yes - Had problems paying medical bills in the 12 months before HMP] Since enrolling in Healthy Michigan, have your problems paying medical bills gotten worse, stayed the same, or gotten better? (n=1,869)		
Gotten better (n=1,629)	85.9	[83.7,87.9]
Stayed the same (n=176)	10.6	[8.9,12.6]
Gotten worse (n=51)	2.6	[1.9,3.7]
Don't know (n=13)	0.9	[0.4,1.8]

Perspectives on Cost-Sharing

The majority (87.6%) of survey respondents agreed that the amount they have to pay for HMP coverage seems fair. Most (88.8%) respondents agreed that the amount they pay for HMP coverage is affordable. Almost three-quarters (72.1%) of respondents agreed that they would rather take some responsibility to pay something for their health care than not pay anything.

	%	95% CI
The amount I have to pay overall for the Healthy Michigan Plan seems fair. (n=4,082)		
Strongly agree (n=1,065)	24.8	[23.2,26.5]
Agree (n=2,568)	62.8	[60.9,64.7]
Neutral (n=145)	4.2	[3.4,5.2]
Disagree (n=153)	4.0	[3.3,4.8]
Strongly disagree (n=28)	0.8	[0.5,1.3]
Don't know (n=123)	3.4	[2.7,4.2]
The amount I pay for the Healthy Michigan Plan is affordable. (n=4,084)		
Strongly agree (n=1,073)	25.1	[23.4,26.8]
Agree (n=2,606)	63.7	[61.8,65.6]
Neutral (n=132)	3.9	[3.2,4.9]
Disagree (n=139)	3.5	[2.9,4.3]
Strongly disagree (n=28)	0.7	[0.4,1.2]
Don't know (n=106)	3.0	[2.4,3.8]

I'd rather take some responsibility to pay something for my health care than not pay anything. (n=4,073)		
Strongly agree (n=653)	14.8	[13.5,16.2]
Agree (n=2,396)	57.3	[55.3,59.2]
Neutral (n=326)	8.7	[7.6,10.0]
Disagree (n=541)	14.6	[13.2,16.0]
Strongly disagree (n=77)	2.1	[1.6,2.8]
Don't know (n=80)	2.5	[1.9,3.3]

Knowledge and Understanding of HMP Cost-Sharing Requirements

Only one-quarter (26.4%) of respondents were aware that contributions are charged monthly regardless of health care use. Approximately one-fifth (20.7%) of respondents were aware that there is a limit or maximum on the amount they might have to pay. Few (14.4%) respondents were aware that they could not be disenrolled from HMP for not paying their bill. Just over one-quarter (28.1%) of respondents were aware that they could get a reduction in the amount they have to pay if they complete a health risk assessment. The majority (75.6%) of respondents were aware that some kinds of visits, tests, and medicines have no copays.

	%	95% CI
Contributions are what I am charged every month for Healthy Michigan Plan coverage even if I do not use any health care. (n=4,081)		
Yes (n=1,149)	26.4	[24.7,28.1]
No (n=986)	23.4	[21.8,25.1]
Don't know (n=1,946)	50.2	[48.3,52.2]
There is no limit or maximum on the amount I might have to pay in copays or contributions. (n=4,083)		
Yes (n=856)	20.7	[19.2,22.3]
No (n=952)	23.0	[21.4,24.7]
Don't know (n=2,275)	56.3	[54.3,58.2]
I could be dropped from the Healthy Michigan Plan for not paying my bill. (n=4,084)		
Yes (n=1,371)	34.2	[32.3,36.1]
No (n=571)	14.4	[13.0,15.8]
Don't know (n=2,142)	51.5	[49.5,53.5]
I may get a reduction in the amount I might have to pay if I complete a health risk assessment. (n=4,081)		
Yes (n=1,161)	28.1	[26.3,30.0]
No (n=438)	10.7	[9.6,12.0]
Don't know (n=2,482)	61.1	[59.2,63.1]
Some kinds of visits, tests, and medicines have no copays. (n=4,084)		
Yes (n=3,176)	75.6	[73.8,77.3]
No (n=161)	4.6	[3.8,5.5]
Don't know (n=747)	19.8	[18.2,21.5]

MI Health Account

The majority (68.2%) of respondents reported that they received a MI Health Account statement.

	%	95% CI
Have you received a bill or statement from the state that showed the services you received and how much you owe for the Healthy Michigan Plan? It's called your MI Health Account Statement. (n=4,090)		
Yes (n=3,011)	68.2	[66.3,70.1]
No (n=951)	28.5	[26.6,30.4]
Don't know (n=128)	3.3	[2.7,4.1]

Among respondents who reported receiving a MI Health Account statement, 88.3% agreed that they carefully review each statement to see how much they owe, 88.4% agreed that the statements help them be more aware of the cost of health care, 30.8% agreed that the information in the statement led them to change some of their health care decisions.

	%	95% CI
I carefully review each MI Health Account statement to see how much I owe. (n=3,005)		
Strongly agree (n=765)	25.3	[23.4,27.4]
Agree (n=1,910)	63.0	[60.8,65.1]
Neutral (n=97)	3.5	[2.8,4.5]
Disagree (n=193)	6.9	[5.8,8.1]
Strongly disagree (n=30)	0.9	[0.6,1.5]
Don't know (n=10)	0.3	[0.2,0.6]
The MI Health Account statements help me be more aware of the cost of health care. (n=3,005)		
Strongly agree (n=654)	22.0	[20.2,24.0]
Agree (n=1,981)	66.4	[64.2,68.5]
Neutral (n=134)	4.4	[3.6,5.4]
Disagree (n=185)	5.6	[4.7,6.7]
Strongly disagree (n=21)	0.5	[0.3,0.8]
Don't know (n=30)	1.0	[0.6,1.5]
Information I saw in a MI Health Account statement led me to change some of my decisions about health care. (n=3,006)		
Strongly agree (n=134)	5.2	[4.2,6.3]
Agree (n=749)	25.6	[23.7,27.6]
Neutral (n=420)	14.9	[13.2,16.7]
Disagree (n=1,513)	48.0	[45.8,50.3]
Strongly disagree (n=104)	3.3	[2.6,4.2]
Don't know (n=86)	3.0	[2.3,4.0]

Information Seeking Behaviors

More than half (58.9%) of all survey respondents agreed that the amount they might have to pay for prescriptions influences their decisions about filling prescriptions.

	%	95% CI
The amount I might have to pay for my prescriptions influences my decisions about filling prescriptions. (n=4,084)		
Strongly agree (n=625)	15.7	[14.3,17.2]
Agree (n=1,736)	43.2	[41.2,45.2]
Neutral (n=282)	7.0	[6.0,8.0]
Disagree (n=1,162)	28.0	[26.3,29.8]
Strongly disagree (n=154)	3.5	[2.9,4.2]
Don't know (n=125)	2.8	[2.2,3.5]

Among all respondents, 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 it, 67.9% reported being somewhat or very likely to talk with their doctor about how much different health care options would cost them, 75.3% reported that they were somewhat or very likely to ask their doctor to recommend a less costly prescription drug, and 78.1% reported that they were somewhat or very likely to check reviews or ratings of quality before choosing a doctor or hospital.

	%	95% CI
Find out how much you might have to pay for a health service before you go to get it. (n=4,076)		
Very likely (n=1,816)	45.0	[43.0,46.9]
Somewhat likely (n=1,096)	26.6	[24.9,28.4]
Somewhat unlikely (n=490)	12.1	[10.9,13.4]
Very unlikely (n=589)	14.4	[13.1,15.8]
Don't know (n=85)	2.0	[1.5,2.6]
Talk with your doctor about how much different health care options would cost you. (n=4,076)		
Very likely (n=1,611)	40.8	[38.9,42.8]
Somewhat likely (n=1,135)	27.1	[25.4,28.8]
Somewhat unlikely (n=551)	13.8	[12.4,15.2]
Very unlikely (n=682)	15.9	[14.5,17.3]
Don't know (n=97)	2.4	[1.9,3.1]
Ask your doctor to recommend a less costly prescription drug. (n=4,074)		
Very likely (n=2,153)	50.9	[48.9,52.8]
Somewhat likely (n=990)	24.4	[22.7,26.1]
Somewhat unlikely (n=331)	9.7	[8.4,11.0]
Very unlikely (n=496)	12.8	[11.5,14.1]
Don't know (n=104)	2.4	[1.9,3.0]

Check reviews or ratings of quality before choosing a doctor or hospital. (n=4,074)		
Very likely (n=2,169)	53.8	[51.8,55.7]
Somewhat likely (n=973)	24.3	[22.7,26.1]
Somewhat unlikely (n=344)	8.3	[7.3,9.5]
Very unlikely (n=473)	11.0	[9.9,12.3]
Don't know (n=115)	2.5	[2.0,3.1]

Impact of HMP Premium Contributions on Cost-Conscious Behaviors

Beneficiaries with incomes 100 to 133% of the FPL, and therefore subject to monthly contributions, were no more likely then beneficiaries with incomes 36 to 99% of the FPL who are not subject to monthly premium contributions to agree they carefully review their MI Health Account statements (86.0% vs. 88.7%), inquire about costs of services before getting them (70.4% vs. 72.9%), talk to providers about costs of health services (67.8 vs. 68.6%), or ask for less costly medications (77.0% vs.78.2%) (See Appendix Table 24).

Beneficiaries with incomes 100 to 133% of the FPL were less likely than beneficiaries with incomes 36 to 99% of the FPL without monthly premium contributions to agree their health care payments were affordable (84.9% vs. 90.8%; P = 0.001), but were no more likely to report foregoing needed care due to cost in the previous 12 months of HMP enrollment (10.4% vs. 12.0%) (See Appendix Table 25).

Perceived Discrimination

Most respondents did not report feeling judged or treated unfairly by medical staff in the past 12 months because of their race or ethnic background (96.4%) or because of how well they spoke English (97.4%); however, 11.6% of respondents felt judged or treated unfairly by medical staff in the past 12 months because of their ability to pay for care or the type of health coverage they had.

	%	95% CI
In the last 12 months, have you ever felt that the doctor or medical staff judged you unfairly or treated you with disrespect because of your race or ethnic background. (n=4,076)		
Yes (n=114)	2.9	[2.3,3.6]
No (n=3,928)	96.4	[95.6,97.0]
Don't know (n=34)	0.8	[0.5,1.1]
In the last 12 months, have you ever felt that the doctor or medical staff judged you unfairly or treated you with disrespect because of how well you speak English. (n=4,075)		
Yes (n=64)	1.7	[1.3,2.3]
No (n=3,975)	97.4	[96.6,97.9]
Don't know (n=36)	0.9	[0.6,1.5]

In the last 12 months, have you ever felt that the doctor or medical staff judged you unfairly or treated you with disrespect because of your ability to pay for care or the type of health insurance you have. (n=4,077)		
Yes (n=465)	11.6	[10.4,12.9]
No (n=3,551)	87.0	[85.7,88.3]
Don't know (n=61)	1.4	[1.1,1.9]

Respondents who reported using the emergency room in the past year were more likely than those who did not use the emergency room to report being judged/treated unfairly by race (4.7% vs 1.7%), and ability to pay (15.5% vs. 9.2%) (See Appendix Tables 6 and 7).

Social Interactions

Two-thirds (67.6%) of respondents said that they get together socially with friends or relatives who live outside their home at least once a week. Most (79.8%) respondents reported that the amount they are involved with their family, friends, and/or community is about the same as before they enrolled in HMP.

	%	95% CI
How often do you get together socially with friends or relatives who live outside your home? (n=4,076)		
Every day (n=543)	14.0	[12.7,15.5]
Every few days (n=999)	23.7	[22.0,25.3]
Every week (n=1,217)	29.9	[28.1,31.7]
Every month (n=850)	21.0	[19.4,22.6]
Once a year or less (n=437)	10.9	[9.7,12.2]
Don't know (n=30)	0.6	[0.4,1.0]
Since enrolling in the Healthy Michigan Plan are you involved with your family, friends or community more, less, or about the same? (n=4,077)		
More (n=590)	15.1	[13.7,16.6]
Less (n=184)	4.4	[3.7,5.3]
About the same (n=3,284)	79.8	[78.2,81.4]
Don't know (n=19)	0.6	[0.4,1.1]

Selected Sub-Population Analyses

Reproductive Health

Among reproductive age women respondents age 19-45, 38.4% “did not know” whether there was a change in their access to family planning services, while 35.5% reported better access, 24.8% reported about the same access, and 1.4% reported worse access. Reproductive age women with inconsistent health insurance or that were uninsured in the year prior to HMP coverage were significantly more likely to report improved access to family planning services compared to those who were fully insured in the prior year (See Appendix Table 27).

Impact on Those with Chronic Health Conditions

A total of 68.1% of respondents reported that they had any chronic disease or mood disorder. More than half (59.9%) of respondents reported at least one chronic physical condition (ranging from 9.7% for heart disease to 31.3% for hypertension), 30.9% reported a chronic mental health condition (depression, anxiety, or bipolar disorder), and 22.6% reported both a physical and mental health chronic condition. Forty-four percent (44%) of those reporting a chronic condition reported they were newly diagnosed since enrolling in HMP. About one-third (30.6%) of all respondents were diagnosed with a new chronic physical condition or mood disorder since enrolling in HMP. This ranged from 32.4-35.4% of those with common physical health conditions (hypertension, heart disease, diabetes, COPD), 40.2% of those with stroke, and 28.8% of those with mood disorder.

	%	95% CI
Physical Chronic Disease[13] (n=4,090)		
Yes (n=2,640)	59.9	[57.9,61.8]
No (n=1,450)	40.1	[38.2,42.1]
Mood Disorder or Mental Health Condition (n=4,090)		
Yes (n=1,301)	30.9	[29.1,32.7]
No (n=2,789)	69.1	[67.3,70.9]
Any Chronic Disease or Mood Disorder (n=4,090)		
Yes (n=2,939)	68.1	[66.2,70.0]
No (n=1,151)	31.9	[30.0,33.8]
[If Any Chronic Disease or Mood Disorder] Any New Diagnoses since HMP Enrollment (n=2,939)		
Yes (n=1,297)	44.0	[41.7,46.3]
No (n=1,642)	56.0	[53.7,58.3]
Physical Chronic Disease and Mood or Mental Disorder (n=4,090)		
Yes (n=1,002)	22.6	[21.1,24.2]
No (n=3,088)	77.4	[75.8,78.9]
Any New Diagnoses since HMP Enrollment (n=4,090)		
Yes (n=1,318)	30.6	[28.8,32.4]
No (n=2,772)	69.4	[67.6,71.2]
Functional Limitations (n=4,026)		
Yes (n=749)	18.4	[17.0,20.0]
No (n=3,277)	81.6	[80.0,83.0]

Among those with a chronic physical or mental health condition in the year prior to HMP enrollment, 58.3% did not have insurance, only 42.1% had seen a primary care provider, and 51.7% had problems paying medical bills (See Appendix Table 30). Since HMP enrollment, 89.6% of those with a chronic physical or mental health condition reported seeing a primary

[13] For these analyses, chronic illness does not include cancer.

care doctor, 64.6% reported their ability to fill prescription medications improved, and 86.3% reported their ability to pay medical bills had improved (See Appendix Tables 31 and 32). Prior to HMP 77.2% of those with a chronic physical or mental health condition had a regular source of care, 64.7% of whom said that source of care was a doctor's office or clinic. After HMP, 95.2% had a regular source of care, and 93.1% said it was a doctor's office or clinic (See Appendix Table 32).

Respondents with a chronic physical or mental health condition reported overall improvements in their physical (51.9%) and mental health (42.4%) status after enrolling in HMP, while 7.5% and 6.1% reported their physical and mental health status had worsened (See Appendix Table 31).

During HMP coverage, 18.4% of those with a chronic physical or mental health condition reported not getting medical or dental care they needed, with perceived health plan non-coverage (38.5%), cost (25.7%) and insurance not accepted (23.7%) the most common reasons (See Appendix Table 32).

Impact on Those with Mood Disorder and Substance Use Disorder

Nearly half (46.2%) of respondents who said they had a mood disorder stated that they had better access to mental health care, however, 20.3% did not know (See Appendix Table 39). Nearly half (48.3%) of respondents with SUD stated that they had better access to treatment, however 33.6% did not know. Most respondents without a self-reported SUD (82.8%) did not know how having HMP impacted their ability to get substance use treatment services (See Appendix Table 40). Since enrollment in HMP, 48.9% of respondents with a self-reported mood disorder (MD) and 50.7% with a self-reported substance use disorder (SUD) reported that their mental health had gotten better (See Appendix Table 41).

Respondents with a mood disorder reported that having HMP has led to a better life (92% strongly agreed or agreed) with more social connection and involvement with family and friends (21% stated more) and at higher rates than all HMP beneficiaries (12.6%). For respondents with a SUD, 95.8% strongly agreed or agreed that having HMP led to a better life and reported HMP led to more social connection and involvement with family and friends (23.2%) at higher rates than among respondents without a substance use disorder at 14.8% (See Appendix Tables 42 and 43).

Prior to HMP, 37% respondents who self-reported a SUD used the emergency room as a regular source of care, while after having HMP coverage, the percentage of those with a self-reported SUD who said they used the emergency room as a regular source of care dropped to 3.6% (See Appendix Tables 34 and 36). However, in the last 12 months (on HMP) those with a mood disorder and those with SUD were more likely to go to the ER than those without a mood disorder or SUD (50.5% MD v. 31.9% without a MD; 60.4% SUD v. 36.6% without a SUD) (See Appendix Table 37).

Respondents with SUD chose the ER due to proximity over other reasons (87.6% with a SUD v. 73.9% without a SUD) (See Appendix Table 44). For ER visits in general, respondents with a SUD have a higher odds of going to the emergency room (odds ratio 2.4) compared to all HMP beneficiaries (See Appendix Table 38).

CONCLUSIONS

- More than half of respondents, including more than half of those with chronic conditions, did not have insurance at any time in the year before enrolling in HMP. More than one-third of respondents reported not getting the care they needed in the year before enrolling in HMP and most respondents reported that their ability to get care had improved since enrolling in HMP. Foregone care, usually due to cost, lessened considerably after enrollment. Over half of respondents reported better access to primary care, help with staying healthy, and cancer screening. **HMP does not appear to have replaced employment-based insurance and has greatly improved access to care for most enrollees.**
- The percentage of enrollees who had a place they usually went for health care increased with HMP to over 90%, and naming the emergency room as a regular source of care declined significantly after enrolling in HMP (from 16.2% to 1.7%). For unscheduled health needs, some HMP beneficiaries sought advice from their regular source of care prior to seeking care, and the majority were referred to the emergency room. Those who used the emergency room had a higher chronic disease burden, and poorer health status. **The HMP emphasis on primary care and disease prevention appears to have shifted much care-seeking from acute care settings to primary care settings.**
- A significant majority of respondents agreed or strongly agreed that without HMP they would not be able to go to the doctor, that HMP helped them live a better life, and since enrolling in HMP their problems paying medical bills had gotten better. Premium contributions did not seem to have initially increased engagement in cost-conscious behaviors or to have increased foregone care due to cost, but did affect the perceived affordability of HMP. **Most respondents agreed that the amount they pay overall for HMP seems fair and is affordable, although enrollees subject to monthly contributions were somewhat less likely to perceive HMP as being affordable**.
- There were some areas in which beneficiaries showed a limited knowledge of HMP and its covered benefits (e.g., dental, vision and family planning) and misunderstanding about the cost-sharing requirements under HMP. A small number of respondents reported questions or problems using their HMP coverage. **These areas provide opportunities to improve beneficiaries' understanding of their coverage.**
- About half of respondents reported completing an HRA, bearing in mind the limits to self-reported data. Most HMP enrollees who completed the HRA believed it was beneficial. They rarely reported completing it because of incentives to reduce their cost-sharing. Most respondents who completed the HRA reported receiving help from their PCP or health plan on a healthy behavior. **Most respondents who recalled completing an HRA found this beneficial and received support to engage in a healthy behavior.**

- Dental coverage for HMP beneficiaries improved access to dental care and improved oral health for many, although many beneficiaries were unaware of dental coverage and were were less likely to report improved access and oral health. **Increasing beneficiary awareness of coverage for dental services has the potential to improve oral and overall health.**
- Many HMP enrollees reported improved functioning, ability to work, and job seeking after obtaining health insurance through Medicaid expansion. HMP enrollees who reported improved physical or mental health since HMP were more likely to report that HMP helped them to do a better job at work, made them better able to look for a job, and helped them get a better job. While many HMP enrollees attributed improvements in employment and ability to work to improved physical, mental and dental health due to covered services, some had ongoing barriers to employment. **HMP may influence beneficiaries' ability to obtain or maintain employment.**
- About half of reproductive-aged women HMP beneficiaries did not know whether there was a change in their access to family planning services compared to before HMP coverage. Those who previously had no or inconsistent health insurance, compared to those with consistent health insurance, reported improved access to family planning services. **Improved dissemination of the family planning services covered by HMP could help beneficiaries better meet their reproductive health needs.**
- Chronic health conditions were common among enrollees in Michigan's Medicaid expansion program, even though most respondents were under 50 years old. Almost half of these conditions were newly diagnosed after enrolling in HMP. Prior to HMP enrollment, a majority of enrollees with chronic illness lacked health insurance and could not access needed care. In particular, HMP enrollees with mood disorder or substance use disorder reported improved health, improved access to services and treatment, and were less likely to name the emergency room or urgent care as a regular source of care. **Enrollees with chronic conditions reported improved access to care and medications, all crucial to successfully managing these conditions and avoiding future disabling complications.**
- Overall, since enrolling in HMP almost half of respondents said their physical health had gotten better, and nearly 40% said their emotional and mental health and their dental health had improved. **These improvements underscore the impact of HMP on enrollees' health and well-being in addition to its effects on their ability to access needed care.**

APPENDIX

Impact of Prior Year Insurance Status on Improvements in Foregone Care, Access, and Health

Table 1. Insurance Status Prior to HMP: Impact on Outcomes

Outcomes[1]	All	Uninsured all 12 months [REF] (n=2,374)	Insured part of 12 months (n=374)	Insured all 12 months (n=1,235)
	Mean or %	% [95% CI]	% [95% CI]	% [95% CI]
Foregone care in 12 months prior to HMP enrollment	33.0	42.2 [39.7,44.7]	31.2 ** [25.7,36.8]	17.3 *** [14.8,19.8]
Foregone care due to cost in 12 months prior to HMP enrollment[2]	25.9	34.4 [31.9,36.8]	24.3 ** [19.2,29.4]	10.6 *** [8.6,12.6]
Improved access to prescription medicines	59.3	67.9 [65.4,70.3]	62.1 [55.9,68.4]	43.0 *** [39.6,46.5]
Improved access to primary care	57.8	68.7 [66.2,71.2]	57.4 ** [51.0,63.8]	37.9 *** [34.3,41.4]
Improved access to help with staying healthy	52.0	60.3 [57.8,62.8]	55.4 [49.0,61.7]	36.2 *** [32.8,39.6]
Improved access to dental care	46.1	54.1 [51.5,56.7]	48.0 [41.6,54.3]	32.3 *** [28.9,35.7]
Improved access to specialist care	44.4	51.8 [49.3,54.4]	44.1 * [37.8,50.4]	31.6 *** [28.2,34.9]
Improved access to mental health care	27.5	32.0 [29.6,34.4]	26.4 [20.4,32.3]	18.5 *** [15.7,21.3]
Improved access to cancer screening	25.7	31.3 [28.9,33.6]	23.4 * [18.2,28.7]	17.2 *** [14.8,19.6]
Improved physical health	47.8	54.3 [51.8,56.9]	50.6 [44.0,57.2]	34.6 *** [31.1,38.0]
Improved mental health	38.2	42.2 [39.6,44.7]	36.3 [30.0,42.7]	30.9 *** [27.3,34.4]
Improved oral health	39.5	44.4 [41.8,47.0]	40.1 [34.0,46.1]	31.5 *** [28.2,34.9]
I don't worry so much…[mean score, 0-4]	Mean 2.64	2.73 [2.67,2.78]	2.71 [2.56,2.86]	2.49 *** [2.41,2.57]
Having HMP has taken a lot of stress off me [mean score, 0-4]	Mean 3.09	3.16 [3.12,3.19]	3.17 [3.09,3.24]	2.99 *** [2.94,3.05]

NOTE: * denotes $P < 0.05$, ** denotes $P < 0.01$, and *** denotes $P < 0.001$.

[1]Results are adjusted for sex, age, income (0-33%FPL, 33-100%, 100-133%) race/ethnicity (NHW, AA, Hispanic, Arab/Chaldean, Others), urbanicity, health status and presence of any chronic condition.

[2]Going without health care because 'you were worried about the cost,' 'you did not have health insurance,' 'the doctor or hospital wouldn't accept your health insurance,' or 'your health plan wouldn't pay for the treatment.'

Primary Care Utilization and Experience

Table 2. Healthy Michigan Plan Beneficiary Characteristics, by PCP Visit in the Past 12 Months

	PCP visit in the past 12 months				
	Yes		No		*P*-value[1]
	Row %	95% CI	Row %	95% CI	
All[2] (n=4,090)	79.3	[77.5,80.9]	20.7	[19.1,22.5]	
Age					<0.001
19-34 (n=1,303)	72.1	[68.8,75.1]	27.9	[24.9,31.2]	
35-50 (n=1,301)	81.0	[78.0,83.7]	19.0	[16.3,22.0]	
51-64 (n=1,486)	88.1	[85.8,90.0]	11.9	[10.0,14.2]	
Gender					<0.001
Male (n=1,681)	73.6	[70.6,76.4]	26.4	[23.6,29.4]	
Female (n=2,409)	84.6	[82.7,86.4]	15.4	[13.6,17.3]	
FPL					0.364
0-35% (n=1,600)	78.7	[75.9,81.3]	21.3	[18.7,24.1]	
36-99% (n=1,450)	81.0	[78.3,83.5]	19.0	[16.5,21.7]	
≥100% (n=1,040)	78.2	[74.9,81.2]	21.8	[18.8,25.1]	
Race					<0.001
White (n=2,784)	82.5	[80.5,84.4]	17.5	[15.6,19.5]	
Black or African American (n=807)	74.4	[70.2,78.3]	25.6	[21.7,29.8]	
Other (n=306)	73.9	[67.4,79.5]	26.1	[20.5,32.6]	
More than one (n=142)	73.4	[62.5,82.0]	26.6	[18.0,37.5]	
Hispanic/Latino					0.331
Yes (n=188)	74.4	[66.4,81.0]	25.6	[19.0,33.6]	
No (n=3,856)	79.5	[77.7,81.3]	20.5	[18.7,22.3]	
DK (n=12)	68.2	[30.8,91.2]	31.8	[8.8,69.2]	
Arab, Chaldean, Middle Eastern					0.387
Yes (n=204)	82.4	[74.6,88.2]	17.6	[11.8,25.4]	
No (n=3,842)	79.0	[77.2,80.8]	21.0	[19.2,22.8]	
DK (n=9)	61.9	[24.4,89.1]	38.1	[10.9,75.6]	
Health status					<0.001
Excellent (n=337)	67.9	[61.3,73.8]	32.1	[26.2,38.7]	
Very good (n=1,041)	71.9	[67.9,75.7]	28.1	[24.3,32.1]	
Good (n=1,448)	81.3	[78.3,84.0]	18.7	[16.0,21.7]	
Fair (n=931)	86.3	[83.3,88.9]	13.7	[11.1,16.7]	
Poor (n=324)	90.7	[86.4,93.8]	9.3	[6.2,13.6]	
Any chronic health condition present					<0.001
Yes (n=2,986)	85.1	[83.2,86.8]	14.9	[13.2,16.8]	
No (n=1,104)	66.2	[62.5,69.8]	33.8	[30.2,37.5]	
Employment status					0.103
Yes (n=2,079)	77.8	[75.2,80.2]	22.2	[19.8,24.8]	
No (n=2,011)	80.7	[78.2,82.9]	19.3	[17.1,21.8]	

Married or partnered					0.102
Yes (n=1,193)	81.6	[78.4,84.5]	18.4	[15.5,21.6]	
No (n=2,880)	78.5	[76.4,80.5]	21.5	[19.5,23.6]	

[1] Pearson chi-square analyses

[2] Overall percentage of enrollees who had a PCP visit in the past year, regardless of whether or not they reported having a PCP

Table 3. Impact of PCP Visit in the Past 12 Months on Access, HRA, Counseling for Healthy Behavior and Diagnosis of New Chronic Condition

NOTE: Reported n is the number of observations in the logistic regression model

	Saw PCP in past 12 months		*P*-value[5]
	Yes (%)	No (%)	
Improved access to help with staying healthy[1] (n=4,004)	55.1 [52.8, 57.3]	40.1 [35.3, 44.9]	<0.001
Improved access to dental care[1] (n=4,011)	47.5 [45.3, 49.8]	41.1 [36.4, 45.9]	0.021
Improved access to specialty care[1] (n=4,012)	46.8 [44.6, 49.0]	35.6 [30.8, 40.4]	<0.001
Improved access to mental health care[1] (n=4,011)	28.0 [26.0, 30.1]	25.1 [20.7, 29.4]	0.242
Improved access to cancer screening[1] (n=3,997)	27.6 [25.7, 29.6]	18.0 [14.3, 21.6]	<0.001
Remembered completing an HRA (n=4,014)	52.8 [50.6, 55.1]	36.4 [31.7, 41.1]	<0.001
Reported being counseled about exercise (n=4,015)	55.4 [53.1, 57.6]	22.3 [18.4, 26.2]	<0.001
Reported being counseled about nutrition (n=4,014)	56.4 [54.1, 58.6]	24.7 [20.6, 28.7]	<0.001
Reported being counseled about tobacco cessation[2] (n=1,506)	61.6 [57.9, 65.2]	27.1 [20.2, 34.0]	<0.001
Reported being counseled about alcohol[3] (n=734)	36.2 [30.9, 41.5]	15.7 [8.4, 23.0]	<0.001
Reported being counseled about drug use[4] (n=173)	40.0 [30.4, 49.6]	30.1 [13.7, 46.5]	0.300
New diagnosis of chronic condition (n=4,015)	32.0 [30.1, 34.0]	22.7 [18.3, 27.0]	<0.001

[1]Participants reported that access to these health care resources had gotten better since enrollment in HMP

[2]Those who reported tobacco use

[3]Those who reported unsafe alcohol intake

[4]Those who reported unsafe drug use

[5] Logistic regression models included covariates age, gender, race, health status, FPL, employment, married/partnered and chronic condition

Impact of HMP on Acute Care Seeking

Table 4. Emergency Room Use in the Past 12 Months, by Health Status

	Health Status				
	Excellent, very good, or good		Fair or poor		*P*-value[1]
	Row %	95% CI	Row %	95% CI	
Any ER visits past 12 months (n=4,081)					<0.001
Yes (n=1,454)	59.9	[56.8,63.0]	40.1	[37.0,43.2]	
No (n=2,604)	76.8	[74.7,78.8]	23.2	[21.2,25.3]	

[1] Pearson chi-square analyses

Table 5. Emergency Room Use in the Past 12 Months, by Presence of Chronic Condition

	Any Chronic Health Condition Present				
	Yes		No		*P*-value[1]
	Row %	95% CI	Row %	95% CI	
Any ER visits past 12 months (n=4,090)					<0.001
Yes (n=1,456)	79.4	[76.4,82.1]	20.6	[17.9,23.6]	
No (n=2,611)	62.8	[60.3,65.2]	37.2	[34.8,39.7]	

[1] Pearson chi-square analyses

Table 6. Emergency Room Use in the Past 12 Months, by Perceived Discrimination Because of Race

	Discrimination: Race/Ethnicity				
	Yes		No		*P*-value[1]
	Row %	95% CI	Row %	95% CI	
Any ER visits past 12 months (n=4,076)					<0.001
Yes (n=1,451)	4.7	[3.5,6.3]	95.0	[93.4,96.3]	
No (n=2,603)	1.8	[1.3,2.5]	97.2	[96.4,97.8]	

[1] Pearson chi-square analyses

Table 7. Emergency Room Use in the Past 12 Months, by Perceived Discrimination Because of Ability to Pay

	Discrimination: Health Insurance/Ability to Pay				
	Yes		No		*P*-value[1]
	Row %	95% CI	Row %	95% CI	
Any ER visits past 12 months (n=4,077)					<0.001
Yes (n=1,452)	15.5	[13.4,17.9]	83.1	[80.6,85.3]	
No (n=2,603)	9.2	[7.8,10.8]	89.4	[87.8,90.9]	

[1] Pearson chi-square analyses

Table 8. Emergency Room Use in the Past 12 Months, by Perceived Discrimination Because of Ability to Speak English

	Discrimination: Ability to Speak English				
	Yes		No		*P*-value[1]
	Row %	95% CI	Row %	95% CI	
Any ER visits past 12 months (n=4,075)					0.003
Yes (n=1,451)	2.3	[1.5,3.4]	97.5	[96.3,98.3]	
No (n=2,602)	1.4	[0.9,2.0]	97.3	[96.3,98.1]	

[1] Pearson chi-square analyses

Impact of HMP on Beneficiary Employment, Education and Ability to Work

Table 9. Demographic and Health Characteristics for HMP Enrollees by Employment Status

	All	Employed or self-employed	Out of work, Total	Homemaker	Student	Retired	Unable to work	*P*-value
	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	% [95% CI]	
Age								
19-34	39.9 [37.9,41.9]	45.8 [43.0,48.6]	34.8 [30.9-38.9]	37.9 [30.1,46.3]	87.5 [81.4,91.8]	0	14.8 [10.6,20.2]	<0.001
35-50	34.0 [32.2,36.0]	34.2 [31.6,36.8]	37.7 [33.8-41.8]	35.1 [27.5,43.6]	8.5 [5.0,14.2]	1.1 [0.3,4.5]	43.1 [37.6,48.8]	
51-64	26.1 [24.6,27.6]	20.0 [18.3,21.9]	27.5 [24.4-30.8]	27.0 [20.7,34.3]	4.0 [2.1,7.7]	98.9 [95.5,99.7]	42.1 [36.8,47.5]	
Male Gender	48.5 [46.5,50.4]	45.5 [42.7,48.3]	57.2 [53.3,61.1]	6.8 [3.7,12.1]	53.3 [43.8,62.4]	51.3 [41.7,60.8]	53.9 [48.3,59.4]	<0.001
Race								
White or Caucasian	61.3 [59.4,63.2]	62.2 [59.5,64.9]	55.2 [51.1-59.2]	66.2 [58.0,73.5]	53.9 [44.3,63.2]	74.3 [63.0,83.1]	70.3 [64.7,75.4]	<0.001
Black or African-American	25.9 [24.2,27.7]	24.2 [21.8,26.8]	34.4 [30.6-38.5]	10.4 [6.3,16.7]	24.8 [17.9,33.4]	16.4 [9.3,27.2]	21.9 [17.3,27.3]	
Other	8.8 [7.7,10.0]	9.4 [7.9,11.2]	5.9 [4.4-7.9]	21.2 [15.3,28.7]	18.3 [11.2,28.6]	5.0 [2.0,11.9]	4.3 [2.5,7.3]	
More than one race	4.0 [3.3,4.9]	4.1 [3.1,5.5]	4.4 [3.0-6.5]	2.2 [1.0,5.1]	3.0 [1.0,8.2]	4.3 [1.1,15.4]	3.6 [2.1,6.1]	
Ethnicity								
Hispanic/Latino	5.2 [4.4,6.2]	6.1 [4.9,7.6]	4.6 [3.1-6.6]	4.9 [2.5,9.3]	6.5 [2.5,15.5]	2.8 [1.2,6.5]	3.3 [1.8,6.0]	0.429
Arab/Chaldean/Middle Eastern	6.2 [5.3,7.2]	7.3 [5.9,9.0]	2.7 [1.7-4.1]	21.1 [14.8,29.1]	14.6 [8.8,23.3]	0	1.2 [0.3,4.9]	<0.001
FPL								
0-35%	51.7 [50.7,52.7]	33.7 [31.3,36.3]	79.1 [76.5-81.5]	27.4 [19.8,36.8]	57.6 [48.4,66.3]	32.2 [23.0,42.9]	73.8 [69.4,77.8]	<0.001
36-99%	28.5 [27.6,29.3]	38.1 [36.1,40.1]	15.0 [12.9-17.3]	46.6 [38.7,54.6]	21.5 [15.5,29.0]	35.4 [26.9,44.9]	13.9 [10.9,17.6]	
≥100%	19.8 [19.2,20.5]	28.1 [26.5,29.8]	5.9 [4.7-7.4]	26.0 [20.0,33.0]	20.9 [14.4,29.3]	32.4 [25.0,40.9]	12.2 [9.6,15.4]	
Veteran	3.4 [2.7,4.2]	2.3 [1.6,3.3]	3.9 [2.6-5.8]	0.5 [0.1,2.0]	3.0 [1.0,8.7]	13.4 [7.6,22.5]	5.9 [3.7,9.2]	0.001
Health Status								
Excellent, very good, or good	70.1 [68.4,71.9]	80.3 [78.1,82.4]	66.1 [62.3-69.6]	77.5 [70.2,83.5]	81.1 [72.5,87.6]	75.9 [67.8,82.5]	26.2 [21.5,31.5]	<0.001
Fair or poor	29.7 [28.0,31.5]	19.6 [17.5,21.9]	33.7 [30.1-37.4]	22.5 [16.5,29.8]	18.9 [12.4,27.5]	24.1 [17.5,32.2]	73.4 [68.1,78.1]	
Chronic Health Condition	69.2 [67.3,71.0]	62.3 [59.5,65.0]	74.0 [69.9-77.6]	66.0 [57.5,73.7]	52.6 [43.1,62.0]	77.8 [67.5,85.6]	94.0 [90.6,96.2]	<0.001
Physical Health Condition	60.8 [58.8,62.8]	53.8 [51.0,56.6]	65.1 [60.9-69.0]	58.4 [49.9,66.3]	40 [31.4,49.3]	76.3 [66.0,84.1]	87.5 [82.6,91.2]	<0.001
Diabetes	10.8 [9.7,12.0]	8.8 [7.5,10.4]	11.4 [9.3-13.9]	9.9 [5.8,16.3]	4.1 [1.8,9.3]	9.3 [5.4,15.6]	22.3 [17.9,27.4]	<0.001
Hypertension	31.3 [29.6,33.1]	24.9 [22.7,27.3]	37.6 [33.8-41.5]	20.6 [15.2,27.2]	10.7 [6.7,16.5]	46.2 [36.7,55.9]	54.2 [48.5,59.8]	<0.001
Cardiovascular Disease	9.8 [8.7,11.0]	7.1 [5.9,8.6]	10.4 [8.2-13.2]	6.6 [4.0,10.6]	3.7 [1.7,7.9]	12.5 [8.2,18.7]	22.9 [18.3,28.2]	<0.001
Asthma	17.1 [15.7,18.6]	14.7 [12.9,16.6]	16.1 [13.5-19.1]	22.8 [16.5,30.8]	21.2 [14.4,30.1]	14.2 [8.0,24.0]	26.6 [21.9,31.9]	<0.001
COPD	10.5 [9.5,11.7]	7.6 [6.2,9.1]	11.2 [9.2-13.6]	10.6 [5.9,18.2]	2.9 [1.2,7.2]	17.4 [11.8,25.0]	23.7 [19.3,28.8]	<0.001
Cancer	3.7 [3.2,4.4]	2.8 [2.1,3.6]	2.7 [1.8-4.1]	5.2 [3.1,8.6]	1.8 [0.5,6.5]	7.6 [4.5,12.5]	10.2 [7.4,14.0]	<0.001
Mental Health Condition	32.2 [30.4,34.0]	25.2 [22.9,27.7]	35.3 [31.7-39.1]	24.2 [18.0,31.5]	30.2 [22.1,39.8]	20.3 [13.3,29.8]	61.7 [56.1,66.9]	<0.001
Mood disorder	30.5 [28.7,32.3]	23.5 [21.2,25.9]	33.7 [30.1-37.4]	23.9 [17.8,31.3]	26.6 [19.1,35.8]	19.9 [12.9,29.5]	59.6 [54.1,65.0]	<0.001
Other	0.8 [0.4,1.3]	0.8 [0.4,1.8]	0.2 [0.0-1.1]	0.3 [0.0,1.8]	3.7 [1.0,12.6]	0.4 [0.1,2.8]	1.2 [0.5,2.8]	0.008

Functional Impairment (≥14 of past 30 days)								
Physical	22.9 [21.3,24.5]	13.3 [11.6,15.3]	24.4 [21.2-27.9]	21.3 [15.0,29.1]	7.6 [4.3,13.1]	24.0 [17.3,32.2]	68.8 [63.2,73.8]	<0.001
Mental	19.9 [18.3,21.5]	11.6 [10.1,13.4]	25.0 [21.7-28.7]	15.1 [9.8,22.4]	16.2 [9.8,25.4]	13.6 [8.8,20.4]	48.4 [42.7,54.1]	<0.001

Table 10. Demographic and Health Characteristics for HMP Enrollees who are Out of Work, ≥ 1 year vs. <1 year

	Out of work ≥ 1 year		Out of work <1 year		Out of work, Total	
	%	[95% CI]	%	[95% CI]	%	[95% CI]
Age						
19-34	28.8	[24.6,33.4]	49.8	[42.2,57.4]	34.8	[30.9-38.9]
35-50	40.0	[35.3,44.9]	32.1	[25.9,39.0]	37.7	[33.8-41.8]
51-64	31.2	[27.4,35.3]	18.1	[13.2,24.3]	27.5	[24.4-30.8]
Male Gender	58.4	[53.7,62.9]	54.5	[46.9,61.9]	57.2	[53.3,61.1]
Race						
White or Caucasian	58.0	[53.2,62.6]	48.2	[40.7,55.8]	55.2	[51.1-59.2]
Black or African-American	31.9	[27.5,36.7]	40.8	[33.1,48.9]	34.4	[30.6-38.5]
Other	6.1	[4.3,8.5]	5.7	[3.2,9.8]	5.9	[4.4-7.9]
More than one race	4.1	[2.5,6.6]	5.4	[2.8,9.9]	4.4	[3.0-6.5]
Ethnicity						
Hispanic/Latino	5.0	[3.2,7.7]	3.5	[1.7,7.2]	4.6	[3.1-6.6]
Arab/Chaldean/Middle Eastern	2.6	[1.6,4.1]	3.0	[1.3,7.2]	2.7	[1.7-4.1]
FPL						
0-35%	81.8	[78.7,84.6]	72.4	[66.6,77.6]	79.1	[76.5-81.5]
36-99%	13.9	[11.4,16.9]	17.6	[13.7,22.3]	15.0	[12.9-17.3]
≥100%	4.3	[3.1,5.8]	10.0	[7.0,14.0]	5.9	[4.7-7.4]
Veteran	4.7	[3.0,7.2]	2.0	[0.8,4.8]	3.9	[2.6-5.8]
Health Status						
Excellent, very good, or good	63.6	[59.1,67.9]	72.2	[65.3,78.2]	66.1	[62.3-69.6]
Fair or poor	36.1	[31.8,40.6]	27.8	[21.8,34.7]	33.7	[30.1-37.4]
Chronic Health Condition	75.9	[71.3,80.0]	69.1	[60.6,76.4]	74.0	[69.9-77.6]
Physical Health Condition	68.2	[63.4,72.6]	57.4	[49.4,65.0]	65.1	[60.9-69.0]
Diabetes	13.8	[11.1,17.1]	5.2	[3.0,8.7]	11.4	[9.3-13.9]
Hypertension	39.8	[35.3,44.5]	32.0	[25.6,39.2]	37.6	[33.8-41.5]
Cardiovascular Disease	11.3	[8.6,14.8]	8.2	[5.1,12.9]	10.4	[8.2-13.2]
Asthma	16.3	[13.2,19.9]	15.6	[11.2,21.3]	16.1	[13.5-19.1]
COPD	12.6	[10.1,15.6]	7.8	[5.0,12.0]	11.2	[9.2-13.6]
Cancer	2.4	[1.5,3.9]	3.5	[1.6,7.2]	2.7	[1.8-4.1]
Mental Health Condition	35.1	[30.8,39.6]	35.9	[29.3,43.0]	35.3	[31.7-39.1]
Mood disorder	33.5	[29.3,38.0]	33.9	[27.5,41.0]	33.7	[30.1-37.4]
Other	0.2	[0.0,1.6]	0		0.2	[0.0-1.1]

Functional Impairment (≥14 of past 30 days)						
Physical	26.2	[22.3,30.5]	19.8	[14.7,26.3]	24.4	[21.2-27.9]
Mental	26.3	[22.3,30.8]	21.8	[16.2,28.7]	25.0	[21.7-28.7]

Table 11. Employment Status Among Healthy Michigan Plan Enrollees, by Health Status

	Health Status						
	Excellent, very good, or good		Fair or poor		Total		*P*-value[1]
	Col %	95% CI	Col %	95% CI	Col %	95% CI	
Employment Status (n=4,059)							<0.001
Employed or self-employed (n=2,076)	56.1	[53.7,58.4]	32.3	[29.1,35.5]	48.9	[47.0,50.8]	
Out of work ≥1 year (n=705)	17.9	[16.0,19.9]	23.9	[21.0,27.0]	19.7	[18.1,21.3]	
Out of work <1 year (n=258)	8.1	[6.8,9.7]	7.4	[5.7,9.4]	7.9	[6.8,9.1]	
Homemaker (n=217)	5.0	[4.2,6.0]	3.4	[2.5,4.7]	4.5	[3.8,5.3]	
Student (n=161)	6.0	[4.9,7.4]	3.3	[2.1,5.1]	5.2	[4.3,6.2]	
Retired (n=167)	2.7	[2.2,3.4]	2.0	[1.5,2.8]	2.5	[2.1,3.0]	
Unable to work (n=475)	4.2	[3.4,5.2]	27.8	[24.8,31.0]	11.3	[10.1,12.5]	

[1] Pearson chi-square analyses

Table 12. Employment Status Among Healthy Michigan Plan Enrollees, by Presence of Chronic Condition

	Any Chronic Health Condition Present						
	Yes		No		Total		*P*-value[1]
	Col %	95% CI	Col %	95% CI	Col %	95% CI	
Employment Status (n=4,068)							<0.001
Employed or self-employed (n=2,079)	44.1	[41.9,46.3]	59.8	[55.9,63.5]	48.9	[47.0,50.8]	
Out of work ≥1 year (n=707)	21.6	[19.7,23.6]	15.4	[12.7,18.5]	19.7	[18.1,21.3]	
Out of work <1 year (n=258)	7.9	[6.7,9.2]	7.9	[5.7,10.8]	7.9	[6.8,9.1]	
Homemaker (n=217)	4.3	[3.6,5.2]	5.0	[3.7,6.7]	4.5	[3.8,5.3]	
Student (n=161)	3.9	[3.1,5.0]	8.0	[6.0,10.4]	5.2	[4.3,6.2]	
Retired (n=167)	2.8	[2.3,3.5]	1.8	[1.1,2.9]	2.5	[2.1,3.0]	
Unable to work (n=479)	15.3	[13.8,17.0]	2.2	[1.4,3.5]	11.3	[10.1,12.5]	

[1] Pearson chi-square analyses

Table 13. Ability to Work Among Healthy Michigan Plan Enrollees Who Are Employed/Self-Employed

	Mean or %	95% CI
[If employed or self-employed] In the past 12 months, about how many days did you miss work at a job or business because of illness or injury (do not include maternity leave)?	Mean 7.2	[5.6,8.7]
Compared to the 12 months before this time, was this more, less, or about the same? (n=2,074)		
More (n=261)	12.3	[10.7,14.1]
Less (n=345)	17.2	[15.2,19.5]
About the same (n=1,437)	68.4	[65.8,70.9]
Don't know (n=31)	2.1	[1.2,3.4]

Table 14. Multivariable Logistic Regression Analysis of Association between HMP Enrollee Demographic and Health Characteristics and being Out of Work or Unable to Work

	Outcomes[1]			
	Out of Work		Unable to Work	
Characteristic	aOR (95% CI)	*P*-value	aOR (95% CI)	*P*-value
Age				
19-34	[ref]	[ref]	[ref]	[ref]
35-50	1.29 (0.99-1.67)	0.056	2.34 (1.45-3.75)	<0.001
51-64	1.67 (1.29-2.17)	<0.001	4.20 (2.64-6.65)	<0.001
Male gender	1.80 (1.45-2.23)	<0.001	1.88 (1.35-2.63)	<0.001
Race				
White or Caucasian	[ref]	[ref]	[ref]	[ref]
Black or African-American	1.93 (1.50-2.49)	<0.001	1.16 (0.76-1.78)	0.483
Other	0.75 (0.50-1.11)	0.148	0.51 (0.25-1.06)	0.072
More than one race	1.25 (0.72-2.18)	0.423	1.02 (0.49-2.15)	0.954
Fair or poor health	1.47 (1.15-1.89)	0.003	3.52 (2.42-5.11)	<0.001
Chronic Health Condition [reference = none]				
Physical	1.11 (0.88-1.42)	0.378	1.73 (1.08-2.79)	0.023
Mental	1.47 (1.16-1.87)	0.001	2.61 (1.82-3.73)	<0.001
Functional Limitation [reference = none]				
Physical	1.43 (1.07-1.92)	0.016	5.10 (3.54-7.33)	<0.001
Mental	1.95 (1.46-2.60)	<0.001	2.29 (1.56-3.37)	<0.001

aOR = adjusted odds ratio; CI = confidence interval

[1]Each column represents a different multivariable logistic regression model.

Table 15. Factors Associated with Employment and Ability to Work, Among Healthy Michigan Plan Enrollees who were Employed/Self-employed

Characteristic	Outcomes[1]			
	Employed or Self-Employed (Weighted N=106,619)		Better Job at Work (Weighted N=75,282)	
	aOR (95% CI)	*P*- value	aOR (95% CI)	*P*-value
Physical or mental health better since HMP enrollment	1.08 (0.89, 1.30)	0.44	4.08 (3.11, 5.35)	<0.001
Age				
19-34	Reference		Reference	
35-50	0.98 (0.78, 1.24)	0.89	0.96 (0.70, 1.31)	0.78
51-64	0.56 (0.45, 0.70)	<0.001	1.10 (0.80, 1.51)	0.57
Female gender	1.00 (0.83, 1.21)	0.98	1.42 (1.08, 1.85)	0.01
Race				
White or Caucasian	Reference		Reference	
Black or African American	0.96 (0.77, 1.21)	0.74	1.55 (1.10, 2.19)	0.01
Other	0.87 (0.61, 1.23)	0.44	1.24 (0.69, 2.21)	0.47
More than one race	1.10 (0.67, 1.82)	0.71	1.70 (0.79, 3.67)	0.18
FPL				
0-35%	Reference		Reference	
36-99%	3.72 (3.02, 4.58)	<0.001	0.79 (0.54, 1.15)	0.22
100-133%	4.40 (3.51, 5.52)	<0.001	0.62 (0.42, 0.90)	0.01
Fair or poor health	0.67 (0.53, 0.83)	<0.001	1.09 (0.76, 1.57)	0.64
Chronic health condition	0.84 (0.67, 1.06)	0.14	1.57 (1.18, 2.09)	0.002
Functional limitation, physical or mental	0.26 (0.19, 0.34)	<0.001	1.20 (0.69, 2.09)	0.53

aOR = adjusted odds ratio; CI = confidence interval; HMP = Healthy Michigan Plan

[1]Each column represents a different multivariable logistic regression model. In the first model, employment status was dichotomized as employed/self-employed vs. all other responses. We checked for collinearity of variables, including health status/chronic condition/function and there was no collinearity in the model.

Table 16. Factors Associated with Job Seeking Ability, Among Healthy Michigan Plan Enrollees who Had a Recent Job Change or were Out of Work

Characteristic	Outcomes[1]			
	Better able to look for job[2] (Weighted N=35,711)		Helped get a better job[3] (Weighted N=9,275)	
	aOR (95% CI)	*P*- value	aOR (95% CI)	*P*-value
Physical or mental health better since HMP enrollment	2.82 (1.93, 4.10)	<0.001	3.20 (1.69, 6.09)	<0.001
Age				
19-34	Reference		Reference	
35-50	1.36 (0.87, 2.11)	0.17	1.01 (0.55, 1.87)	0.97
51-64	1.76 (1.14, 2.72)	0.01	1.30 (0.65, 2.59)	0.46
Female gender	0.73 (0.50, 1.07)	0.10	0.72 (0.41, 1.25)	0.24
Race				
White or Caucasian	Reference		Reference	
Black or African American	0.80 (0.53, 1.22)	0.30	1.31 (0.68, 2.55)	0.42
Other	1.52 (0.73, 3.19)	0.27	1.69 (0.65, 4.41)	0.28
More than one race	0.51 (0.22, 1.23)	0.13	0.46 (0.13, 1.67)	0.24
FPL				
0-35%	Reference		Reference	
36-99%	0.83 (0.53, 1.29)	0.40	0.90 (0.47, 1.73)	0.76
100-133%	0.74 (0.41, 1.36)	0.33	0.60 (0.31, 1.17)	0.13
Fair or poor health	1.17 (0.79, 1.74)	0.42	1.17 (0.56, 2.45)	0.67
Chronic health condition	0.87 (0.54, 1.40)	0.57	1.31 (0.72, 2.36)	0.37
Functional limitation, physical or mental	0.85 (0.56, 1.30)	0.46	1.51 (0.47, 4.89)	0.49

aOR = adjusted odds ratio; CI = confidence interval; HMP = Healthy Michigan Plan

[1]Each column represents a different multivariable logistic regression model.

[2]Strongly agree or agree that "Having health insurance through the Healthy Michigan Plan has made me better able to look for a job."

[3]Strongly agree or agree that "Having health insurance through the Healthy Michigan Plan helped me get a better job."

Impact of HMP on Access to Dental Care and Oral Health

Table 17. Healthy Michigan Plan Beneficiary Characteristics, by Awareness of Dental Care Coverage

	My Healthy Michigan Plan covers routine dental visits.						
	Yes		No		Don't know		*P*-value[1]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Age							0.524
19-34 (n=1,303)	76.9	[73.8,79.8]	4.6	[3.4,6.2]	18.5	[15.8,21.4]	
35-50 (n=1,300)	76.7	[73.6,79.5]	3.4	[2.5,4.6]	20.0	[17.3,23.0]	
51-64 (n=1,483)	78.2	[75.6,80.6]	3.7	[2.7,5.0]	18.1	[15.9,20.6]	
Total (n=4,086)	77.2	[75.4,78.8]	3.9	[3.3,4.7]	18.9	[17.3,20.6]	
FPL							0.016
0-35% (n=1,599)	77.1	[74.3,79.7]	2.9	[2.1,4.1]	20.0	[17.5,22.7]	
36-99% (n=1,448)	78.5	[75.9,80.9]	4.9	[3.7,6.4]	16.6	[14.5,18.9]	
≥100% (n=1,039)	75.3	[72.0,78.3]	5.2	[3.9,7.1]	19.4	[16.7,22.5]	
Total (n=4,086)	77.2	[75.4,78.8]	3.9	[3.3,4.7]	18.9	[17.3,20.6]	
Region							0.087
UP/NW/NE (n=745)	78.6	[75.0,81.7]	2.9	[1.9,4.4]	18.5	[15.5,22.0]	
W/EC/E (n=1,264)	79.0	[76.2,81.5]	3.3	[2.4,4.6]	17.7	[15.3,20.3]	
SC/SW/SE (n=836)	72.5	[68.5,76.2]	4.6	[3.3,6.4]	22.9	[19.3,26.9]	
DET (n=1,241)	77.7	[74.6,80.5]	4.2	[3.1,5.7]	18.1	[15.5,21.0]	
Total (n=4,086)	77.2	[75.4,78.8]	3.9	[3.3,4.7]	18.9	[17.3,20.6]	
Employment status							0.364
Employed or self-employed (n=2,078)	77.9	[75.5,80.2]	4.0	[3.1,5.2]	18.0	[15.9,20.4]	
Out of work ≥1 year (n=705)	74.4	[69.7,78.6]	3.4	[2.0,5.7]	22.2	[18.2,26.8]	
Out of work <1 year (n=258)	78.9	[72.1,84.4]	3.8	[2.1,7.0]	17.3	[12.2,24.0]	
Homemaker (n=217)	79.3	[72.3,84.9]	6.1	[3.1,11.7]	14.6	[10.1,20.6]	
Student (n=161)	75.3	[66.1,82.6]	5.4	[2.9,10.0]	19.3	[12.6,28.5]	
Retired (n=167)	80.1	[72.8,85.8]	3.8	[1.8,7.7]	16.1	[11.0,23.1]	
Unable to work (n=479)	77.1	[72.4,81.2]	2.2	[1.3,3.7]	20.7	[16.7,25.3]	
Don't know (n=7)	53.2	[15.8,87.3]	0		46.8	[12.7,84.2]	
Total (n=4,072)	77.2	[75.4,78.8]	3.8	[3.2,4.6]	19.0	[17.4,20.7]	

[1] Pearson chi-square analyses

Table 18. Healthy Michigan Plan Beneficiary Characteristics, by Perceived Dental Care Access

	Would you say that your ability to get dental care through the Healthy Michigan Plan is better, worse, or about the same, compared to before?								
	Better		Worse		About the same		Don't know		*P*-value[1]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Age									<0.001
19-34 (n=1,302)	44.4	[41.1,47.8]	6.4	[4.8,8.4]	35.2	[31.9,38.6]	14.1	[11.9,16.6]	
35-50 (n=1,298)	47.7	[44.3,51.1]	5.9	[4.6,7.6]	26.1	[23.2,29.1]	20.3	[17.5,23.4]	
51-64 (n=1,484)	46.4	[43.3,49.6]	6.5	[5.1,8.3]	24.7	[22.1,27.5]	22.4	[19.9,25.0]	
Total (n=4,084)	46.1	[44.1,48.0]	6.2	[5.4,7.3]	29.3	[27.5,31.2]	18.4	[16.9,19.9]	
FPL									0.104
0-35% (n=1,596)	46.8	[43.7,49.9]	5.3	[4.1,7.0]	28.2	[25.4,31.2]	19.7	[17.3,22.2]	
36-99% (n=1,448)	46.3	[43.2,49.4]	6.8	[5.4,8.7]	29.6	[26.7,32.6]	17.3	[15.0,19.8]	
≥100% (n=1,040)	43.6	[40.2,47.2]	7.8	[6.0,10.1]	32.1	[28.8,35.5]	16.5	[14.0,19.3]	
Total (n=4,084)	46.1	[44.1,48.0]	6.2	[5.4,7.3]	29.3	[27.5,31.2]	18.4	[16.9,19.9]	
Region									0.566
UP/NW/NE (n=746)	48.8	[44.7,52.9]	6.5	[4.9,8.5]	28.0	[24.3,32.0]	16.8	[14.1,19.8]	
W/EC/E (n=1,263)	47.3	[44.2,50.5]	5.9	[4.4,7.8]	28.1	[25.3,31.1]	18.6	[16.2,21.3]	
SC/SW/SE (n=835)	45.4	[41.4,49.5]	5.8	[4.2,8.0]	27.9	[24.1,31.9]	20.9	[17.9,24.3]	
DET (n=1,240)	44.9	[41.5,48.4]	6.6	[5.1,8.5]	31.0	[27.9,34.4]	17.4	[14.9,20.3]	
Total (n=4,084)	46.1	[44.1,48.0]	6.2	[5.4,7.3]	29.3	[27.5,31.2]	18.4	[16.9,19.9]	
Employment status									<0.001
Employed or self-employed (n=2,077)	48.2	[45.5,51.0]	5.5	[4.5,6.7]	30.1	[27.6,32.7]	16.2	[14.3,18.2]	
Out of work ≥1 year (n=704)	45.7	[41.0,50.4]	4.9	[3.1,7.7]	25.3	[21.4,29.6]	24.2	[20.2,28.7]	
Out of work <1 year (n=258)	43.0	[35.8,50.5]	9.0	[4.9,15.8]	28.8	[22.1,36.4]	19.3	[13.8,26.2]	
Homemaker (n=217)	48.0	[39.8,56.3]	5.7	[3.2,9.8]	33.8	[26.5,41.9]	12.6	[8.6,18.1]	
Student (n=160)	32.3	[24.6,41.0]	12.8	[7.6,20.9]	43.8	[34.5,53.6]	11.1	[6.6,18.0]	
Retired (n=167)	48.6	[39.0,58.3]	7.4	[3.8,13.9]	24.8	[17.3,34.3]	19.2	[13.1,27.1]	
Unable to work (n=479)	44.1	[38.6,49.7]	6.8	[4.4,10.4]	27.1	[22.2,32.5]	22.0	[17.8,27.0]	
Don't know (n=7)	58.7	[17.6,90.4]	0		0		41.3	[9.6,82.4]	
Total (n=4,069)	46.1	[44.1,48.0]	6.2	[5.3,7.2]	29.4	[27.6,31.3]	18.3	[16.9,19.9]	

[1] Pearson chi-square analyses

Table 19. Healthy Michigan Plan Beneficiary Characteristics, by Forgone Dental Care

	Forgone dental care due to cost[1]				
	Yes		No		*P*-value[2]
	Row %	95% CI	Row %	95% CI	0.537
Age					
19-34 (n=136)	65.3	[55.1,74.3]	34.7	[25.7,44.9]	
35-50 (n=132)	58.5	[47.9,68.3]	41.5	[31.7,52.1]	
51-64 (n=125)	66.1	[54.1,76.3]	33.9	[23.7,45.9]	
Total (n=393)	63.2	[57.0,69.0]	36.8	[31.0,43.0]	
FPL					0.282
0-35% (n=156)	59.9	[50.6,68.5]	40.1	[31.5,49.4]	
36-99% (n=142)	64.1	[53.2,73.7]	35.9	[26.3,46.8]	
≥100% (n=95)	72.0	[60.8,81.0]	28.0	[19.0,39.2]	
Total (n=393)	63.2	[57.0,69.0]	36.8	[31.0,43.0]	
Region					0.047
UP/NW/NE (n=55)	57.2	[42.3,70.9]	42.8	[29.1,57.7]	
W/EC/E (n=115)	61.1	[50.8,70.6]	38.9	[29.4,49.2]	
SC/SW/SE (n=92)	50.6	[38.9,62.2]	49.4	[37.8,61.1]	
DET (n=131)	70.5	[59.6,79.5]	29.5	[20.5,40.4]	
Total (n=393)	63.2	[57.0,69.0]	36.8	[31.0,43.0]	
Employment status					0.008
Employed or self-employed (n=196)	61.5	[52.6,69.8]	38.5	[30.2,47.4]	
Out of work ≥1 year (n=67)	68.6	[53.9,80.3]	31.4	[19.7,46.1]	
Out of work <1 year (n=26)	82.5	[64.3,92.5]	17.5	[7.5,35.7]	
Homemaker (n=18)	79.2	[52.8,92.8]	20.8	[7.2,47.2]	
Student (n=19)	78.9	[55.9,91.7]	21.1	[8.3,44.1]	
Retired (n=9)	70.3	[31.8,92.3]	29.7	[7.7,68.2]	
Unable to work (n=58)	41.3	[25.6,59.1]	58.7	[40.9,74.4]	
Total (n=393)	63.2	[57.0,69.0]	36.8	[31.0,43.0]	

[1] Going without dental care because 'you were worried about the cost,' 'you did not have health insurance,' 'the doctor or hospital wouldn't accept your health insurance,' or 'your health plan wouldn't pay for the treatment.'

[2] Pearson chi-square analyses

Table 20. Healthy Michigan Plan Beneficiary Characteristics, by Oral Health

	Since you enrolled in the Healthy Michigan Plan, has the health of your teeth and gums gotten better, stayed the same, or gotten worse?								
	Gotten better		Stayed the same		Gotten worse		Don't know		*P*-value[1]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Age									<0.001
19-34 (n=1,302)	38.8	[35.6,42.1]	50.1	[46.7,53.6]	8.1	[6.5,10.1]	2.9	[2.0,4.2]	
35-50 (n=1,299)	39.9	[36.6,43.3]	42.1	[38.7,45.5]	12.5	[10.5,14.9]	5.5	[4.1,7.4]	
51-64 (n=1,483)	40.1	[37.1,43.3]	42.9	[39.8,46.0]	11.0	[9.2,13.0]	6.0	[4.7,7.8]	
Total (n=4,084)	39.5	[37.6,41.5]	45.5	[43.5,47.5]	10.4	[9.3,11.6]	4.6	[3.9,5.5]	
FPL									0.198
0-35% (n=1,597)	40.0	[37.0,43.1]	44.0	[40.9,47.2]	11.1	[9.4,13.0]	4.9	[3.8,6.4]	
36-99% (n=1,448)	40.7	[37.7,43.8]	44.9	[41.8,48.0]	9.9	[8.1,12.0]	4.6	[3.4,6.0]	
≥100% (n=1,039)	36.6	[33.3,40.0]	50.3	[46.8,53.9]	9.2	[7.4,11.3]	3.9	[2.7,5.6]	
Total (n=4,084)	39.5	[37.6,41.5]	45.5	[43.5,47.5]	10.4	[9.3,11.6]	4.6	[3.9,5.5]	
Region									0.053
UP/NW/NE (n=745)	40.9	[36.9,45.0]	44.4	[40.3,48.5]	9.3	[7.3,11.8]	5.5	[3.9,7.5]	
W/EC/E (n=1,263)	38.2	[35.2,41.3]	46.9	[43.7,50.1]	9.0	[7.4,10.8]	6.0	[4.5,7.9]	
SC/SW/SE (n=836)	36.4	[32.7,40.4]	46.6	[42.5,50.8]	13.0	[10.5,15.9]	4.0	[2.8,5.6]	
DET (n=1,240)	41.4	[38.0,44.9]	44.4	[40.9,47.9]	10.4	[8.6,12.6]	3.8	[2.7,5.4]	
Total (n=4,084)	39.5	[37.6,41.5]	45.5	[43.5,47.5]	10.4	[9.3,11.6]	4.6	[3.9,5.5]	
Employment status									<0.001
Employed or self-employed (n=2,077)	40.1	[37.4,42.8]	46.9	[44.2,49.7]	9.2	[7.8,10.8]	3.8	[2.9,5.0]	
Out of work ≥1 year (n=704)	35.9	[31.6,40.4]	48.9	[44.2,53.7]	11.3	[8.6,14.7]	3.9	[2.6,5.8]	
Out of work <1 year (n=258)	43.2	[35.8,50.9]	42.0	[34.6,49.8]	9.0	[6.1,13.1]	5.8	[3.2,10.1]	
Homemaker (n=217)	43.3	[35.2,51.7]	45.3	[37.3,53.5]	9.3	[5.9,14.4]	2.2	[0.8,5.6]	
Student (n=161)	34.6	[26.4,43.7]	51.0	[41.5,60.3]	9.4	[5.7,15.0]	5.1	[2.0,12.8]	
Retired (n=167)	44.9	[35.3,54.9]	41.7	[32.7,51.3]	10.1	[5.9,16.7]	3.3	[1.4,7.5]	
Unable to work (n=478)	39.7	[34.3,45.4]	35.6	[30.5,41.1]	15.8	[12.0,20.6]	8.9	[6.0,12.9]	
Don't know (n=7)	27.0	[6.5,66.1]	39.3	[10.5,78.2]	0		33.7	[5.6,81.3]	
Total (n=4,069)	39.4	[37.5,41.4]	45.6	[43.7,47.6]	10.4	[9.3,11.6]	4.6	[3.8,5.5]	

[1] Pearson chi-square analyses

Table 21. Perceived Access to Dental Care, Forgone Dental Care, Dental Health, ER Use, and Missed Work or School, by Awareness of Dental Care Coverage

	Awareness of dental care coverage				
	Yes		No[1]		*P*-value[2]
	Row %	95% CI	Row %	95% CI	
Ability to get dental care					<0.001
Better (n=1,929)	92.6	[90.9,94.0]	7.4	[6.0,9.1]	
Worse (n=255)	63.6	[55.6,70.8]	36.4	[29.2,44.4]	
About the same (n=1,137)	72.3	[68.7,75.6]	27.7	[24.4,31.3]	
Don't know (n=760)	51.0	[46.4,55.6]	49.0	[44.4,53.6]	
Total (n=4,081)	77.2	[75.4,78.8]	22.8	[21.2,24.6]	
Forgone dental care due to cost[3]					0.277
Yes (n=252)	64.9	[57.2,71.9]	35.1	[28.1,42.8]	
No (n=141)	71.6	[61.3,80.1]	28.4	[19.9,38.7]	
Total (n=393)	67.4	[61.3,72.9]	32.6	[27.1,38.7]	
Dental health status					<0.001
Gotten better (n=1,641)	92.3	[90.6,93.8]	7.7	[6.2,9.4]	
Stayed the same (n=1,809)	69.9	[67.0,72.7]	30.1	[27.3,33.0]	
Gotten worse (n=443)	58.9	[53.1,64.5]	41.1	[35.5,46.9]	
Don't know (n=189)	59.5	[50.3,68.0]	40.5	[32.0,49.7]	
Total (n=4,082)	77.2	[75.4,78.8]	22.8	[21.2,24.6]	
Any ER visits past 12 months					0.785
Yes (n=1,455)	77.4	[74.4,80.0]	22.6	[20.0,25.6]	
No (n=2,609)	77.1	[74.9,79.2]	22.9	[20.8,25.1]	
Don't know (n=22)	69.6	[43.6,87.2]	30.4	[12.8,56.4]	
Total (n=4,086)	77.2	[75.4,78.8]	22.8	[21.2,24.6]	
Days of school missed					0.896
None (n=94)	74.3	[62.0,83.7]	25.7	[16.3,38.0]	
1-7 days (n=50)	78.4	[58.7,90.2]	21.6	[9.8,41.3]	
More than 7 days (n=15)	76.0	[48.0,91.6]	24.0	[8.4,52.0]	
Total (n=159)	75.8	[66.4,83.2]	24.2	[16.8,33.6]	

Days of work missed					0.930
None (n=1,180)	78.4	[75.1,81.3]	21.6	[18.7,24.9]	
1-7 days (n=744)	77.9	[73.6,81.6]	22.1	[18.4,26.4]	
More than 7 days (n=384)	77.2	[71.7,82.0]	22.8	[18.0,28.3]	
Total (n=2,308)	78.0	[75.7,80.2]	22.0	[19.8,24.3]	

[1] Includes "Don't know" responses

[2] Pearson chi-square analyses

[3] Going without dental care because 'you were worried about the cost,' 'you did not have health insurance,' 'the doctor or hospital wouldn't accept your health insurance,' or 'your health plan wouldn't pay for the treatment.'

Table 22. Perceived Impact of HMP on Employment, ER Use, and Dental Health, by Perceived Access to Dental Care

	Would you say that your ability to get dental care through the Healthy Michigan Plan is better, worse, or about the same, compared to before?										
	Better		Worse		About the same		Don't know		Total		*P*-value[1]
	Col %	95% CI	Col %	95% CI	Col %	95% CI	Col %	95% CI	Col %	95% CI	
HMP helped me get a better job (n=447)											<0.001
Strongly agree (n=33)	12.0	[7.1,19.5]	4.6	[1.1,17.3]	3.8	[1.5,9.6]	4.0	[1.0,15.3]	7.7	[5.0,11.6]	
Agree (n=123)	39.2	[30.2,49.0]	17.6	[5.5,44.0]	25.6	[17.2,36.2]	10.5	[5.2,20.2]	29.2	[23.6,35.4]	
Neutral (n=103)	17.8	[12.7,24.4]	36.7	[20.0,57.3]	20.0	[12.5,30.5]	31.4	[19.0,47.1]	21.5	[17.1,26.7]	
Disagree (n=150)	24.4	[17.4,33.1]	35.8	[18.5,57.8]	44.6	[34.1,55.6]	35.7	[22.6,51.4]	33.5	[27.8,39.6]	
Strongly disagree (n=30)	5.7	[2.8,11.4]	5.3	[1.2,21.2]	4.9	[2.0,11.3]	12.0	[6.1,22.3]	6.4	[4.2,9.6]	
Don't know (n=8)	0.9	[0.3,2.9]	0		1.1	[0.2,4.9]	6.4	[1.8,20.3]	1.8	[0.8,4.0]	
Better job at work (n=2,075)											<0.001
Yes (n=1,430)	76.8	[73.2,80.0]	56.9	[46.7,66.5]	63.3	[58.2,68.1]	63.1	[56.6,69.0]	69.4	[66.8,71.8]	
No (n=548)	19.2	[16.2,22.6]	34.4	[25.5,44.4]	32.6	[28.0,37.6]	30.3	[24.8,36.5]	25.9	[23.6,28.3]	
Don't know (n=97)	4.0	[2.8,5.8]	8.7	[4.4,16.4]	4.1	[2.4,6.9]	6.6	[4.1,10.5]	4.7	[3.7,6.0]	
HMP helped me look for job (n=955)											<0.001
Strongly agree (n=158)	18.9	[14.8,23.7]	11.0	[4.7,23.3]	11.8	[7.9,17.3]	17.7	[12.0,25.5]	16.3	[13.6,19.4]	
Agree (n=388)	42.6	[37.2,48.3]	17.1	[8.6,31.3]	41.6	[34.0,49.7]	31.2	[24.2,39.1]	38.2	[34.5,42.1]	
Neutral (n=185)	17.0	[12.9,22.0]	7.6	[3.6,15.5]	21.1	[14.8,29.3]	25.2	[18.0,34.0]	19.4	[16.2,23.0]	
Disagree (n=143)	14.1	[10.5,18.7]	51.3	[33.3,69.0]	16.9	[11.7,23.8]	14.7	[8.6,24.1]	17.2	[14.1,20.9]	
Strongly disagree (n=35)	3.8	[2.1,6.9]	4.3	[1.2,14.6]	3.6	[1.7,7.6]	2.8	[1.2,6.2]	3.5	[2.4,5.2]	
Don't know (n=46)	3.6	[2.1,6.2]	8.7	[2.4,27.3]	5.0	[2.5,9.6]	8.4	[4.4,15.6]	5.4	[3.8,7.6]	

Any ER visits past 12 months (n=4,084)											0.474
Yes (n=1,452)	38.5	[35.8,41.3]	43.1	[35.4,51.1]	35.0	[31.5,38.8]	37.0	[32.7,41.5]	37.5	[35.6,39.4]	
No (n=2,609)	60.8	[58.0,63.6]	56.9	[48.9,64.6]	64.4	[60.7,68.0]	62.4	[57.9,66.7]	61.9	[60.0,63.8]	
Don't know (n=23)	0.7	[0.3,1.6]	0		0.5	[0.2,1.3]	0.6	[0.2,1.4]	0.6	[0.3,1.0]	
Dental health status (n=4,081)											<0.001
Gotten better (n=1,641)	67.9	[65.2,70.6]	14.4	[9.2,21.9]	20.9	[18.0,24.1]	7.0	[5.0,9.8]	39.6	[37.7,41.5]	
Stayed the same (n=1,807)	26.6	[24.1,29.3]	33.9	[26.8,41.8]	68.9	[65.4,72.3]	59.5	[55.0,63.9]	45.5	[43.6,47.5]	
Gotten worse (n=443)	4.5	[3.6,5.7]	46.9	[39.2,54.8]	8.8	[7.0,11.0]	15.2	[12.3,18.6]	10.4	[9.3,11.6]	
Don't know (n=190)	1.0	[0.5,1.7]	4.8	[2.6,8.7]	1.4	[0.9,2.3]	18.2	[15.0,22.0]	4.5	[3.8,5.4]	

[1] Pearson chi-square analyses

Impact of HMP Premium Contributions on Cost-Conscious Behaviors

Table 23. Healthy Michigan Plan Beneficiary Characteristics, by Federal Poverty Level

Characteristic[1]	FPL 0-35%		FPL 36-99%		FPL ≥100%		Total		*P*-value[2]
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	
Age									0.035
19-34 (n=1,303)	38.1	[35.0,41.3]	40.5	[37.4,43.7]	44.0	[40.4,47.6]	40.0	[38.0,42.0]	
35-50 (n=1,301)	36.1	[33.1,39.1]	33.6	[30.7,36.6]	29.2	[26.1,32.5]	34.0	[32.1,35.9]	
51-64 (n=1,486)	25.9	[23.5,28.3]	25.9	[23.5,28.5]	26.8	[24.1,29.7]	26.0	[24.5,27.6]	
Gender									<0.001
Male (n=1,681)	57.2	[54.1,60.2]	39.1	[36.0,42.3]	39.0	[35.5,42.6]	48.4	[46.5,50.4]	
Female (n=2,409)	42.8	[39.8,45.9]	60.9	[57.7,64.0]	61.0	[57.4,64.5]	51.6	[49.6,53.5]	
Race/ethnicity									<0.001
White, non-Hispanic (n=2,714)	54.4	[51.4,57.4]	62.9	[59.9,65.9]	66.7	[63.4,69.9]	59.3	[57.3,61.1]	
Black, non-Hispanic (n=800)	32.6	[29.7,35.6]	18.2	[15.8,21.0]	19.3	[16.7,22.1]	25.9	[24.1,27.7]	
Hispanic (n=78)	1.9	[1.2,2.9]	2.4	[1.6,3.5]	2.4	[1.4,4.0]	2.1	[1.6,2.8]	
Other (n=448)	11.2	[9.3,13.3]	16.4	[14.1,19.1]	11.7	[9.5,14.3]	12.8	[11.5,14.2]	
Region									<0.001
UP/NW/NE (n=746)	6.7	[6.2,7.2]	10.9	[10.1,11.7]	12.3	[11.5,13.2]	9.0	[8.6,9.4]	
W/EC/E (n=1,265)	26.2	[25.1,27.5]	30.5	[29.1,31.9]	32.1	[30.4,33.8]	28.6	[27.8,29.4]	
SC/SW/SE (n=837)	17.4	[16.2,18.7]	19.2	[18.2,20.3]	20.6	[19.2,22.1]	18.6	[17.8,19.3]	
DET (n=1,242)	49.6	[48.1,51.2]	39.4	[37.6,41.2]	35.0	[33.3,36.7]	43.8	[42.8,44.9]	

Married or partnered									<0.001
Yes (n=1,193)	13.8	[11.9,16.0]	34.6	[31.7,37.5]	38.7	[35.4,42.2]	24.6	[23.2,26.2]	
No (n=2,880)	86.2	[84.0,88.1]	65.4	[62.5,68.3]	61.3	[57.8,64.6]	75.4	[73.8,76.8]	
Health status									<0.001
Excellent, very good, or good (n=2,826)	64.1	[61.1,66.9]	75.7	[73.1,78.2]	78.6	[75.6,81.3]	70.2	[68.5,72.0]	
Fair or poor (n=1,255)	35.9	[33.1,38.9]	24.3	[21.8,26.9]	21.4	[18.7,24.4]	29.8	[28.0,31.5]	
Any chronic health condition									<0.001
Yes (n=2,986)	72.9	[69.8,75.7]	66.2	[63.1,69.1]	63.9	[60.4,67.2]	69.2	[67.3,71.0]	
No (n=1,104)	27.1	[24.3,30.2]	33.8	[30.9,36.9]	36.1	[32.8,39.6]	30.8	[29.0,32.7]	
Any health insurance in 12 months before HMP enrollment									<0.001
Yes (n=1,667)	35.4	[32.5,38.4]	44.8	[41.7,48.0]	48.6	[45.0,52.1]	40.7	[38.8,42.6]	
No (n=2,374)	62.6	[59.6,65.6]	54.1	[50.9,57.2]	50.9	[47.3,54.4]	57.9	[55.9,59.8]	
Cost-related access barriers in 12 months before HMP enrollment[3]									0.666
Yes (n=1,341)	32.4	[29.6,35.4]	31.2	[28.4,34.2]	30.6	[27.5,33.9]	31.7	[29.9,33.6]	
No (n=2,706)	67.6	[64.6,70.4]	68.8	[65.8,71.6]	69.4	[66.1,72.5]	68.3	[66.4,70.1]	
Carefully review MIHA statements[4]									0.387
Yes (n=2,675)	88.7	[86.2,90.8]	89.1	[86.4,91.3]	86.5	[83.4,89.1]	88.3	[86.8,89.7]	
No (n=330)	11.3	[9.2,13.8]	10.9	[8.7,13.6]	13.5	[10.9,16.6]	11.7	[10.3,13.2]	
Find out about service costs[5]									0.232
Yes (n=2,912)	70.3	[67.4,73.0]	73.5	[70.7,76.1]	72.1	[68.8,75.1]	71.5	[69.7,73.3]	
No (n=1,164)	29.7	[27.0,32.6]	26.5	[23.9,29.3]	27.9	[24.9,31.2]	28.5	[26.7,30.3]	
Talk with doctor about costs[6]									0.736
Yes (n=2,746)	67.3	[64.3,70.1]	68.7	[65.7,71.6]	68.4	[65.0,71.6]	67.9	[66.0,69.7]	
No (n=1,330)	32.7	[29.9,35.7]	31.3	[28.4,34.3]	31.6	[28.4,35.0]	32.1	[30.3,34.0]	
Ask doctor about less costly drug[7]									<0.001
Yes (n=3,143)	71.6	[68.7,74.4]	79.0	[76.4,81.4]	79.3	[76.2,82.0]	75.2	[73.4,76.9]	
No (n=931)	28.4	[25.6,31.3]	21.0	[18.6,23.6]	20.7	[18.0,23.8]	24.8	[23.1,26.6]	
Check reviews or ratings of quality[8]									0.058
Yes (n=3,142)	76.4	[73.7,79.0]	79.6	[77.0,82.0]	80.4	[77.6,82.9]	78.1	[76.4,79.7]	
No (n=932)	23.6	[21.0,26.3]	20.4	[18.0,23.0]	19.6	[17.1,22.4]	21.9	[20.3,23.6]	

Fewer medical bill problems in previous 12 months of HMP enrollment[9]									0.191
Yes (n=1,629)	84.4	[80.9,87.4]	88.3	[84.6,91.2]	86.9	[82.9,90.1]	85.9	[83.7,87.9]	
No (n=240)	15.6	[12.6,19.1]	11.7	[8.8,15.4]	13.1	[9.9,17.1]	14.1	[12.1,16.3]	
Payments affordable for HMP[10]									0.015
Yes (n=3,679)	88.6	[86.4,90.5]	91.1	[88.9,92.9]	85.9	[83.2,88.2]	88.8	[87.4,90.0]	
No (n=405)	11.4	[9.5,13.6]	8.9	[7.1,11.1]	14.1	[11.8,16.8]	11.2	[10.0,12.6]	
Foregone care due to cost in previous 12 months of HMP enrollment[3]									0.589
Yes (n=439)	11.2	[9.3,13.3]	11.8	[9.9,14.1]	10.1	[8.2,12.4]	11.1	[10.0,12.5]	
No (n=3,623)	88.8	[86.7,90.7]	88.2	[85.9,90.1]	89.9	[87.6,91.8]	88.9	[87.5,90.0]	

[1]n does not sum to 4,090 for every characteristic due to skip patterns, "don't know" responses, or non-responses for individual items.
[2]pearson chi-square analyses
[3]Going without health care because 'you were worried about the cost,' 'you did not have health insurance,' 'the doctor or hospital wouldn't accept your health insurance,' or 'your health plan wouldn't pay for the treatment.'
[4]Strongly agree or agree that carefully review MIHA statements.
[5]Very or somewhat likely to find out about the costs of services before receiving them.
[6]Very or somewhat likely to talk with doctors about how much services will cost.
[7]Very or somewhat likely to ask doctors about a less costly prescription drug.
[8]Very or somewhat likely to check quality reviews or ratings before getting care.
[9]Among individuals with problems paying medical bills in the 12 months before enrolling in HMP.
[10]Strongly agree or agree that payments for HMP are affordable.

Table 24. Engagement in Cost-Conscious Behaviors among Subgroups of HMP Beneficiaries

Subgroup[2]	Outcomes[1]														
	Carefully review MIHA statements[3] (n=2,924)			Find out about service costs[4] (n=3,979)			Talk with doctor about costs[5] (n=3,978)			Ask doctor about less costly drug[6] (n=3,978)			Check reviews or ratings of quality[7] (n=3,977)		
	%	95% CI		%	95% CI		%	95% CI		%	95% CI		%	95% CI	
FPL															
0-35%	89.3	87.0	91.5	71.6	68.8	74.4	68.1	65.2	71.0	73.8*	71.0	76.6	77.8	75.2	80.4
36-99% (ref)	88.7	86.0	91.3	72.9	70.0	75.8	68.6	65.5	71.6	78.2	75.4	80.9	79.0	76.3	81.6
100+%	86.0	83.0	89.0	70.4	67.0	73.8	67.8	64.3	71.3	77.0	73.7	80.2	78.4	75.4	81.4
Gender															
Male (ref)	87.4	85.1	89.8	69.7	67.0	72.4	67.2	64.3	70.1	71.5	68.7	74.2	75.0	72.4	77.6
Female	89.2	87.3	91.1	73.6*	71.3	76.0	69.1	66.7	71.5	79.6***	77.3	81.8	81.3***	79.1	83.4

Age															
19-34 (ref)	86.2	83.5	88.9	76.9	74.0	79.8	72.0	68.9	75.1	77.6	74.6	80.6	82.3	79.5	85.0
35-50	88.2	85.5	90.9	67.0***	63.5	70.2	64.8**	61.5	68.2	72.7*	69.5	75.8	75.7**	72.7	78.8
51-64	91.4**	89.3	93.5	70.0**	67.0	73.0	66.6*	63.5	69.7	76.2	73.4	79.0	75.3**	72.6	78.1
Race/ethnicity															
White, non-Hispanic (ref)	89.1	87.3	90.9	72.7	70.2	75.2	68.8	66.2	71.3	78.9	76.5	81.2	78.4	76.1	80.7
Black, non-Hispanic	88.4	85.0	91.8	71.8	67.9	75.7	69.3	65.2	73.4	73.3*	69.4	77.2	81.3	77.9	84.7
Hispanic	83.9	73.3	94.5	51.3**	37.0	65.6	51.9*	37.8	66.0	59.9**	46.0	73.8	64.1*	50.1	78.1
Other	85.5	80.3	90.6	70.2	65.0	75.4	65.6	59.9	71.2	68.0***	62.7	73.3	72.8*	67.3	78.2
Marital status															
Not married or partnered (ref)	88.1	86.3	89.9	71.6	69.5	73.6	67.9	65.8	70.1	74.7	72.7	76.7	77.1	75.1	79.0
Married or partnered	89.4	86.8	92.1	72.2	68.7	75.7	68.9	65.3	72.6	78.3	75.0	81.7	81.6	78.8	84.4
Region															
UP/NW/NE (ref)	86.7	82.9	90.6	68.0	63.8	72.2	66.8	62.6	71.0	76.2	72.2	80.2	70.3	66.2	74.5
W/EC/E	90.2	87.8	92.5	72.2	69.2	75.2	69.6	66.5	72.6	76.7	73.8	79.6	79.8***	77.2	82.4
SC/SW/SE	87.5	84.4	90.7	71.5	67.7	75.3	67.8	64.1	71.5	78.0	74.7	81.4	79.0**	75.9	82.1
DET	88.0	85.3	90.7	72.3	69.1	75.5	67.7	64.3	71.2	73.8	70.6	77.0	78.5**	75.4	81.6
Health status															
Excellent, very good, or good (ref)	89.3	87.5	91.0	72.5	70.3	74.7	68.4	66.1	70.7	76.6	74.4	78.8	79.1	77.0	81.2
Fair or poor	86.1	82.9	89.4	69.9	66.6	73.2	67.7	64.3	71.0	73.1	69.9	76.3	76.3	73.3	79.4
Any chronic health condition															
No (ref)	86.9	83.4	90.4	74.2	70.8	77.6	70.7	67.2	74.3	75.1	71.6	78.6	81.6	78.5	84.7
Yes	89.0	87.3	90.7	70.7	68.4	72.9	67.1	64.8	69.4	75.8	73.6	77.9	76.8*	74.7	78.9
Any health insurance in 12 months before HMP enrollment															
No (ref)	88.9	87.0	90.8	70.8	68.5	73.2	69.1	66.8	71.5	75.5	73.2	77.8	76.7	74.5	78.9
Yes	87.7	85.3	90.1	73.0	70.2	75.8	66.7	63.7	69.8	75.7	72.9	78.5	80.5*	78.0	83.1
Forgone care due to cost in 12 months before HMP enrollment[8]															
No (ref)	89.2	87.5	90.9	70.1	67.9	72.4	67.9	65.6	70.2	74.5	72.4	76.7	77.5	75.4	79.5
Yes	87.0	83.8	89.8	75.0*	72.0	78.0	68.8	65.4	72.1	77.8	74.7	80.9	79.7	76.9	82.6

NOTES: * denotes $P < 0.05$, ** denotes $P < 0.01$, and *** denotes $P < 0.001$.

[1]The columns for each outcome depict marginal estimates from a logistic regression model in which the dependent variable is the respective outcome and the independent variables are all of the characteristics in the table rows.
[2]Subgroups denoted by (ref) are the reference for statistical tests.
[3]Strongly agree or agree that carefully review MIHA statements.
[4]Very or somewhat likely to find out about the costs of services before receiving them.
[5]Very or somewhat likely to talk with doctors about how much services will cost.
[6]Very or somewhat likely to ask doctors about a less costly prescription drug.
[7]Very or somewhat likely to check quality reviews or ratings before getting care.
[8]Going without health care because 'you were worried about the cost,' 'you did not have health insurance,' 'the doctor or hospital wouldn't accept your health insurance,' or 'your health plan wouldn't pay for the treatment.'

Table 25. Health Care Affordability Among Subgroups of HMP Beneficiaries

Subgroup[2]	Outcomes[1]								
	Fewer medical bill problems[3] (n=1,816)			Payments affordable[4] (n=3,982)			Forgone care due to cost[5] (n=3,967)		
	%	95% CI		%	95% CI		%	95% CI	
FPL									
0-35%	84.8	81.7	88.0	89.2	87.1	91.2	10.9	9.0	12.9
36-99% (ref)	88.3	84.7	91.9	90.8	88.7	92.3	12.0	9.7	14.2
100+%	85.3	81.1	89.5	84.9**	82.1	87.7	10.4	8.2	12.7
Gender									
Male (ref)	84.4	81.0	87.8	89.1	87.0	91.1	10.2	8.3	12.2
Female	87.0	84.5	89.6	88.5	86.8	90.3	11.9	10.2	13.6
Age									
19-34 (ref)	83.4	79.2	87.6	88.3	86.0	90.6	13.7	11.2	16.2
35-50	85.3	82.0	88.6	87.9	85.5	90.3	9.9*	8.1	11.8
51-64	89.4*	86.6	92.3	90.8	88.8	92.8	9.2**	7.3	11.1
Race/ethnicity									
White, non-Hispanic (ref)	87.4	84.7	90.1	91.7	90.3	93.2	10.3	8.8	11.8
Black, non-Hispanic	84.8	80.6	89.1	84.0***	80.7	87.3	10.5	7.7	13.3
Hispanic	91.5	79.1	100.0	86.8	87.3	95.3	18.4	7.1	29.7
Other	79.7	71.0	88.4	85.3**	80.8	89.7	14.9*	10.5	19.3

Marital status									
Not married or partnered (ref)	85.7	83.3	88.1	88.9	87.4	90.4	11.1	9.7	12.6
Married or partnered	86.2	81.7	90.6	88.6	86.0	91.3	11.1	8.6	13.6
Sampling Region									
UP/NW/NE (ref)	82.1	76.8	87.3	90.9	87.9	94.0	8.3	6.0	10.6
W/EC/E	87.8*	84.3	91.2	88.6	86.3	90.9	10.8	8.7	12.9
SC/SW/SE	86.4	82.2	90.7	88.9	86.3	91.4	11.3	8.9	13.8
DET	85.1	81.4	88.8	88.6	86.4	90.8	11.9*	9.5	14.2
Health status									
Excellent, very good, or good (ref)	87.4	84.8	90.0	90.0	88.4	91.6	10.2	8.7	11.7
Fair or poor	83.2	79.5	86.8	85.8**	83.0	88.6	13.1*	10.6	15.6
Any chronic health condition									
No (ref)	85.7	80.7	90.7	88.4	85.7	91.0	7.7	5.6	9.8
Yes	85.8	83.4	88.3	89.0	87.4	90.6	12.5**	10.9	14.2
Any health insurance in 12 months before HMP enrollment									
No (ref)	86.9	84.5	89.4	89.8	88.3	91.4	9.7	8.2	11.2
Yes	83.3	79.4	87.3	87.3	84.9	89.6	13.4**	11.2	15.6
Forgone care due to cost in 12 months before HMP enrollment[6]									
No (ref)	83.2	80.2	86.2	89.6	88.1	91.0	8.1	6.8	9.5
Yes	88.8**	85.9	91.7	87.0	84.2	89.8	17.6***	14.8	20.5

NOTES: * denotes $P < 0.05$, ** denotes $P < 0.01$, and *** denotes $P < 0.001$.

[1]The columns for each outcome depict marginal estimates from a logistic regression model in which the dependent variable is the respective outcome and the independent variables are all of the characteristics in the table rows.

[2]Subgroups denoted by (ref) are the reference for statistical tests.

[3]Among individuals with problems paying medical bills in the 12 months before enrolling in HMP.

[4]Strongly agree or agree that payments for HMP are affordable.

[5]Going without health care in the previous 12 months of HMP enrollment because 'you were worried about the cost,' 'you did not have health insurance,' 'the doctor or hospital wouldn't accept your health insurance,' or 'your health plan wouldn't pay for the treatment.'

[6]Going without health care in the 12 months before HMP enrollment because 'you were worried about the cost,' 'you did not have health insurance,' 'the doctor or hospital wouldn't accept your health insurance,' or 'your health plan wouldn't pay for the treatment.'

Reproductive Health

Table 26. Characteristics of Reproductive Age Females

	Col %	95% CI
Age (n=1,168)		
19-34 (n=754)	68.1	[64.8,71.3]
35-45 (n=414)	31.9	[28.7,35.2]
Race (n=1,162)		
White (n=769)	61.7	[58.2,65.2]
Black or African American (n=254)	24.9	[21.9,28.2]
Other (n=90)	8.5	[6.7,10.6]
More than one (n=49)	4.9	[3.4,6.8]
FPL (n=1,168)		
0-35% (n=312)	40.1	[36.8,43.6]
36-99% (n=490)	34.5	[31.8,37.4]
≥100% (n=366)	25.3	[23.0,27.7]
Married or partnered (n=1,166)		
Yes (n=337)	23.7	[21.2,26.4]
No (n=829)	76.3	[73.6,78.8]
Health status (n=1,168)		
Excellent, very good, or good (n=905)	76.5	[73.4,79.4]
Fair or poor (n=263)	23.5	[20.6,26.6]
Health insurance in 12 months before HMP enrollment (n=1,167)		
Insured all 12 months (n=434)	36.4	[33.1,39.9]
Insured less than 12 months (n=129)	12.0	[9.7,14.6]
Not insured (n=570)	48.4	[44.9,52.0]
Don't know (n=34)	3.2	[2.1,4.8]
PCP visit in the past 12 months (n=1,168)		
Yes (n=947)	80.4	[77.5,83.0]
No (n=221)	19.6	[17.0,22.5]

Table 27. Healthy Michigan Plan Beneficiary Characteristics and Ability to Get Birth Control/Family Planning Services

	Would you say that your ability to get birth control/family planning services through the Healthy Michigan Plan is better, worse, or about the same, compared to before?								
	Better		Worse		About the same		Don't know		*P*-value[1]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Age									<0.001
19-34 (n=753)	40.9	[36.6,45.3]	1.9	[1.0,3.5]	26.9	[23.3,30.9]	30.3	[26.3,34.6]	
35-45 (n=413)	24.1	[19.4,29.5]	0.3	[0.0,2.4]	20.2	[15.4,26.0]	55.4	[49.3,61.4]	
Total (n=1,166)	35.5	[32.2,39.0]	1.4	[0.7,2.5]	24.8	[21.8,28.0]	38.4	[34.9,41.9]	
Race									0.224
White (n=767)	34.4	[30.4,38.7]	1.9	[1.0,3.6]	23.0	[19.6,26.8]	40.7	[36.4,45.2]	
Black or African American (n=254)	35.3	[28.3,43.0]	0.4	[0.1,3.1]	29.4	[23.1,36.7]	34.8	[27.9,42.3]	
Other (n=90)	48.0	[36.4,59.8]	0		25.7	[16.5,37.5]	26.3	[17.4,37.7]	
More than one (n=49)	32.9	[19.5,49.7]	2.5	[0.4,16.1]	24.7	[11.8,44.7]	39.9	[24.3,57.8]	
Total (n=1,160)	35.7	[32.4,39.2]	1.4	[0.8,2.5]	24.9	[22.0,28.1]	38.0	[34.5,41.5]	
FPL									0.280
0-35% (n=311)	34.8	[28.7,41.4]	1.9	[0.8,4.7]	21.4	[16.1,27.7]	41.9	[35.3,48.8]	
36-99% (n=490)	36.9	[32.0,42.2]	0.5	[0.2,1.8]	26.2	[22.0,30.8]	36.3	[31.6,41.3]	
≥100% (n=365)	34.7	[29.4,40.4]	1.7	[0.7,4.1]	28.2	[23.3,33.6]	35.5	[30.2,41.1]	
Total (n=1,166)	35.5	[32.2,39.0]	1.4	[0.7,2.5]	24.8	[21.8,28.0]	38.4	[34.9,41.9]	
Married or partnered									0.890
Yes (n=337)	34.1	[28.6,40.1]	1.1	[0.4,2.9]	25.3	[20.3,30.9]	39.6	[34.0,45.5]	
No (n=827)	36.1	[32.1,40.2]	1.5	[0.7,3.0]	24.7	[21.2,28.5]	37.8	[33.7,42.1]	
Total (n=1,164)	35.6	[32.3,39.1]	1.4	[0.8,2.5]	24.8	[21.9,28.0]	38.2	[34.8,41.8]	
Health status									0.114
Excellent, very good, or good (n=903)	35.3	[31.6,39.2]	1.0	[0.5,1.9]	26.4	[23.0,30.1]	37.3	[33.4,41.4]	
Fair or poor (n=263)	36.2	[29.1,43.8]	2.6	[0.9,7.3]	19.5	[14.4,25.9]	41.7	[34.7,49.0]	
Total (n=1,166)	35.5	[32.2,39.0]	1.4	[0.7,2.5]	24.8	[21.8,28.0]	38.4	[34.9,41.9]	
Health insurance in 12 months before HMP enrollment									<0.001
Insured all 12 months (n=434)	27.5	[22.3,33.2]	2.5	[1.1,5.5]	35.3	[30.2,40.9]	34.7	[29.4,40.3]	
Insured less than 12 months (n=127)	33.8	[24.4,44.7]	1.0	[0.1,6.5]	21.9	[14.5,31.8]	43.3	[33.0,54.2]	
Not insured (n=570)	42.5	[37.6,47.5]	0.5	[0.2,1.3]	17.9	[14.1,22.6]	39.1	[34.1,44.2]	
Don't know (n=34)	28.2	[11.9,53.2]	3.1	[0.4,19.4]	18.7	[8.5,36.1]	50.0	[29.4,70.6]	
Total (n=1,165)	35.5	[32.2,39.0]	1.4	[0.8,2.5]	24.8	[21.9,28.0]	38.3	[34.9,41.8]	

PCP visit in the past 12 months									0.376
Yes (n=945)	36.8	[33.0,40.7]	1.2	[0.6,2.2]	24.8	[21.5,28.4]	37.2	[33.4,41.2]	
No (n=221)	30.2	[23.6,37.8]	2.1	[0.6,7.7]	24.7	[18.7,31.7]	43.0	[35.4,50.9]	
Total (n=1,166)	35.5	[32.2,39.0]	1.4	[0.7,2.5]	24.8	[21.8,28.0]	38.4	[34.9,41.9]	

[1] Pearson chi-square analyses

Impact on Those with Chronic Health Conditions

Table 28. Functional Limitations Among Those with Chronic Conditions

	Functional Limitations				
	Yes		No		*P*-value[1]
	Row %	95% CI	Row %	95% CI	
Physical Chronic Disease					<0.001
Yes (n=2,590)	24.8	[22.8,26.9]	75.2	[73.1,77.2]	
No (n=1,436)	9.1	[7.2,11.5]	90.9	[88.5,92.8]	
Total (n=4,026)	18.4	[17.0,20.0]	81.6	[80.0,83.0]	
Mood Disorder or Mental Health Condition					<0.001
Yes (n=1,279)	35.3	[32.1,38.7]	64.7	[61.3,67.9]	
No (n=2,747)	10.9	[9.5,12.5]	89.1	[87.5,90.5]	
Total (n=4,026)	18.4	[17.0,20.0]	81.6	[80.0,83.0]	
Any Chronic Disease or Mood Disorder					<0.001
Yes (n=2,885)	24.4	[22.5,26.4]	75.6	[73.6,77.5]	
No (n=1,141)	5.8	[4.1,8.3]	94.2	[91.7,95.9]	
Total (n=4,026)	18.4	[17.0,20.0]	81.6	[80.0,83.0]	

[1] Pearson chi-square analyses

Table 29. Healthy Michigan Plan Beneficiary Characteristics Among Those with Chronic Disease and Among Those with Functional Limitations

	Any Chronic Disease or Mood Disorder		Functional Limitations	
	Col %	95% CI	Col %	95% CI
Age (n=4,090)				
19-34 (n=1,303)	32.5	[30.3,34.8]	23.5	[19.5,28.1]
35-50 (n=1,301)	36.7	[34.5,39.0]	40.2	[35.9,44.7]
51-64 (n=1,486)	30.8	[28.9,32.8]	36.3	[32.2,40.5]

Gender (n=4,090)				
Male (n=1,681)	46.7	[44.4,49.0]	50.6	[46.1,55.1]
Female (n=2,409)	53.3	[51.0,55.6]	49.4	[44.9,53.9]
Race (n=4,039)				
White (n=2,784)	64.4	[62.2,66.6]	63.7	[59.0,68.1]
Black/African American (n=807)	24.8	[22.8,26.9]	23.6	[19.7,28.0]
Other (n=306)	6.8	[5.7,8.0]	8.0	[5.6,11.1]
More than one (n=142)	4.0	[3.1,5.1]	4.8	[3.2,7.0]
Hispanic/Latino (n=4,056)				
Yes (n=188)	4.7	[3.8,5.9]	6.1	[4.0,9.3]
No (n=3,856)	94.7	[93.5,95.7]	93.5	[90.3,95.8]
Don't Know (n=12)	0.6	[0.3,1.2]	0.4	[0.1,2.6]
Arab, Chaldean, Middle Eastern (n=4,055)				
Yes (n=204)	3.8	[3.0,4.8]	3.8	[2.3,6.3]
No (n=3,842)	95.8	[94.8,96.7]	95.9	[93.4,97.5]
Don't Know (n=9)	0.3	[0.2,0.7]	0.3	[0.0,1.9]
Marital status (n=4,073)				
Not married or partnered (n=2,880)	75.6	[73.7,77.3]	78.0	[74.2,81.4]
Married or partnered (n=1,193)	24.4	[22.7,26.3]	22.0	[18.6,25.8]
Health status (n=4,081)				
Excellent (n=337)	4.5	[3.7,5.6]	1.5	[0.7,3.1]
Very good (n=1,041)	19.5	[17.6,21.5]	8.3	[5.7,11.9]
Good (n=1,448)	37.1	[34.9,39.4]	20.9	[17.6,24.7]
Fair (n=931)	28.3	[26.3,30.4]	37.7	[33.4,42.2]
Poor (n=324)	10.5	[9.2,12.0]	31.6	[27.5,35.9]
Physical health not good any days in past 30 days (n=4,090)				
Yes (n=2,082)	58.0	[55.7,60.3]	88.0	[84.5,90.8]
No (n=2,008)	42.0	[39.7,44.3]	12.0	[9.2,15.5]
Mental health not good any days in past 30 days (n=4,090)				
Yes (n=1,635)	49.1	[46.8,51.4]	75.1	[71.2,78.7]
No (n=2,455)	50.9	[48.6,53.2]	24.9	[21.3,28.8]

Table 30. Access to Care Prior to HMP Enrollment Among Those With Chronic Disease

	Any Chronic Disease or Mood Disorder		Physical Chronic Disease		Mood Disorder or Mental Health Condition		Functional Limitations	
	Col %	95% CI	Col %	95% CI	Col %	95% CI	Col %	95% CI
Any health insurance in 12 months before HMP enrollment (n=4,087)								
Yes (n=1,667)	40.8	[38.5,43.0]	40.3	[38.0,42.7]	44.0	[40.6,47.6]	41.1	[36.8,45.7]
No (n=2,374)	58.3	[56.0,60.5]	58.7	[56.4,61.1]	55.0	[51.5,58.5]	57.1	[52.6,61.6]
Don't Know (n=46)	1.0	[0.6,1.5]	1.0	[0.6,1.6]	0.9	[0.5,1.7]	1.7	[0.7,4.3]
Insurance duration before HMP enrollment (n=1,667)								
All 12 months (n=1,235)	74.9	[71.7,77.9]	75.2	[71.9,78.3]	74.5	[69.5,78.9]	66.4	[59.2,72.9]
6-11 months (n=245)	14.4	[12.1,17.2]	14.3	[11.9,17.1]	14.1	[10.8,18.2]	17.6	[12.7,23.8]
Less than 6 months (n=129)	6.7	[5.2,8.5]	6.8	[5.2,8.8]	6.5	[4.4,9.6]	11.0	[6.9,17.0]
Don't know (n=58)	4.0	[2.8,5.8]	3.6	[2.5,5.3]	4.9	[2.9,8.2]	5.0	[2.7,9.3]
Problems paying medical bills before HMP enrollment (n=4,085)								
Yes (n=1,869)	51.7	[49.4,54.0]	52.9	[50.5,55.3]	52.7	[49.2,56.2]	59.4	[54.9,63.8]
No (n=2,196)	47.9	[45.6,50.2]	46.8	[44.4,49.2]	47.0	[43.5,50.5]	40.0	[35.6,44.5]
Don't Know (n=20)	0.4	[0.2,0.7]	0.3	[0.1,0.7]	0.3	[0.1,0.8]	0.6	[0.2,1.7]
Didn't get care needed before HMP enrollment (n=4,084)								
Yes (n=1,409)	38.4	[36.2,40.7]	39.2	[36.8,41.5]	41.8	[38.4,45.2]	47.3	[42.8,51.9]
No (n=2,638)	60.6	[58.4,62.9]	59.8	[57.5,62.2]	57.5	[54.1,60.9]	51.8	[47.3,56.3]
Don't Know (n=37)	1.0	[0.6,1.5]	1.0	[0.6,1.6]	0.7	[0.4,1.3]	0.9	[0.3,2.4]
PCP visit timing before HMP enrollment (n=4,086)								
Less than 1 year before HMP (n=1,647)	42.1	[39.8,44.4]	41.9	[39.6,44.3]	45.6	[42.1,49.1]	40.4	[36.1,44.9]
1 to 5 years (n=1,577)	36.2	[34.0,38.4]	36.0	[33.8,38.4]	35.1	[31.9,38.4]	36.8	[32.6,41.3]
More that 5 years (n=813)	20.4	[18.6,22.5]	20.7	[18.7,22.8]	18.7	[16.0,21.6]	21.5	[17.9,25.6]
Don’t Know (n=49)	1.3	[0.8,2.0]	1.3	[0.8,2.1]	0.7	[0.4,1.3]	1.3	[0.6,2.5]

Table 31. Impact of HMP on Chronic Disease Care Access and Function Among Enrollees With Chronic Illness

	Any Chronic Disease or Mood Disorder		Physical Chronic Disease		Mood Disorder or Mental Health Condition		Functional Limitations	
	Col %	95% CI	Col %	95% CI	Col %	95% CI	Col %	95% CI
Ability to get mental health care (n=4,084)								
Better (n=1,077)	32.2	[30.0,34.4]	29.7	[27.5,32.0]	46.4	[42.9,49.9]	36.2	[31.9,40.7]
Worse (n=97)	3.4	[2.7,4.4]	2.9	[2.2,3.9]	6.2	[4.7,8.2]	8.1	[5.9,11.1]
About the same (n=923)	22.1	[20.2,24.1]	21.4	[19.5,23.4]	27.1	[24.1,30.4]	21.4	[17.9,25.3]
Don't know (n=1,987)	42.3	[40.1,44.6]	46	[43.6,48.4]	20.2	[17.6,23.1]	34.3	[30.2,38.6]
Ability to get prescription meds (n=4,085)								
Better (n=2,497)	64.6	[62.3,66.8]	64.6	[62.3,66.9]	67.6	[64.3,70.7]	66.7	[62.3,70.9]
Worse (n=121)	3.9	[3.0,4.9]	4.0	[3.1,5.2]	4.5	[3.2,6.1]	7.0	[4.9,9.8]
About the same (n=1,017)	24.6	[22.6,26.6]	24.6	[22.6,26.8]	23.5	[20.7,26.6]	22.0	[18.4,26.1]
Don't know (n=450)	7.0	[5.9,8.3]	6.8	[5.6,8.1]	4.4	[3.2,6.1]	4.3	[2.8,6.6]
Ability to pay medical bills (n=1,869)								
Gotten worse (n=51)	3.1	[2.2,4.4]	3.3	[2.3,4.6]	4.2	[2.6,6.6]	5.5	[3.3,9.1]
Stayed the same (n=176)	9.8	[8.0,11.9]	9.7	[7.8,12.0]	9.5	[7.0,12.7]	13.5	[9.6,18.7]
Gotten better (n=1,629)	86.3	[83.8,88.4]	86.6	[84.1,88.7]	85.0	[81.1,88.2]	80.0	[74.4,84.6]
Don't know (n=13)	0.9	[0.4,2.1]	0.5	[0.2,1.1]	1.4	[0.4,4.2]	1.0	[0.3,3.3]
Physical health status (n=4,086)								
Gotten better (n=1,961)	51.9	[49.6,54.2]	52.9	[50.5,55.3]	50.2	[46.7,53.6]	41.5	[37.1,46.0]
Stayed the same (n=1,851)	40.3	[38.0,42.6]	38.5	[36.2,40.8]	39.0	[35.6,42.5]	38.6	[34.2,43.2]
Gotten worse (n=256)	7.5	[6.4,8.6]	8.2	[7.1,9.5]	10.3	[8.6,12.4]	19.1	[16.0,22.6]
Don't know (n=18)	0.4	[0.2,0.7]	0.4	[0.2,0.7]	0.5	[0.2,1.3]	0.8	[0.3,1.9]
Mental health status (n=4,080)								
Gotten better (n=1,550)	42.4	[40.1,44.7]	40.8	[38.4,43.2]	48.7	[45.2,52.2]	34.9	[30.7,39.3]
Stayed the same (n=2,318)	50.9	[48.6,53.2]	52.8	[50.4,55.2]	40.1	[36.7,43.6]	47.0	[42.5,51.6]
Gotten worse (n=186)	6.1	[5.1,7.4]	5.7	[4.7,6.9]	10.8	[8.8,13.2]	17.1	[13.8,20.9]
Don't know (n=26)	0.6	[0.4,0.9]	0.7	[0.4,1.1]	0.4	[0.2,0.8]	1.1	[0.5,2.1]

Table 32. Opportunities for Improvement of Chronic Disease Care in HMP

	Any Chronic Disease or Mood Disorder		Physical Chronic Disease		Mood Disorder or Mental Health Condition		Functional Limitations	
	Col %	95% CI	Col %	95% CI	Col %	95% CI	Col %	95% CI
Foregone care in past 12 months (n=4,084)								
Yes (n=629)	18.4	[16.6,20.3]	17.7	[15.9,19.6]	22.5	[19.8,25.6]	27.8	[23.8,32.1]
No (n=3,433)	81.4	[79.5,83.1]	82.1	[80.1,83.8]	77.2	[74.2,80.0]	72.0	[67.6,76.0]
Don't Know (n=22)	0.2	[0.1,0.4]	0.2	[0.1,0.5]	0.2	[0.1,0.6]	0.2	[0.1,0.7]
Foregone care because worried about cost (n=629)								
Yes (n=155)	25.7	[21.2,30.8]	25.3	[20.6,30.8]	28.8	[22.7,35.7]	26.8	[19.7,35.3]
No (n=474)	74.3	[69.2,78.8]	74.7	[69.2,79.4]	71.2	[64.3,77.3]	73.2	[64.7,80.3]
Foregone care because no insurance (n=629)								
Yes (n=41)	8.9	[5.8,13.3]	6.8	[4.3,10.6]	9.0	[4.8,16.2]	8.8	[4.0,18.2]
No (n=588)	91.1	[86.7,94.2]	93.2	[89.4,95.7]	91.0	[83.8,95.2]	91.2	[81.8,96.0]
Foregone care because insurance not accepted (n=629)								
Yes (n=141)	23.7	[19.1,28.9]	25.1	[20.2,30.9]	24.6	[18.7,31.5]	23.2	[16.4,31.8]
No (n=488)	76.3	[71.1,80.9]	74.9	[69.1,79.8]	75.4	[68.5,81.3]	76.8	[68.2,83.6]
Foregone care because health plan wouldn't pay (n=629)								
Yes (n=251)	38.5	[33.4,43.9]	39.6	[34.2,45.4]	34.9	[28.5,42.0]	37.9	[29.7,47.0]
No (n=378)	61.5	[56.1,66.6]	60.4	[54.6,65.8]	65.1	[58.0,71.5]	62.1	[53.0,70.3]
Foregone care because couldn’t get an appointment soon enough (n=630)								
Yes (n=73)	10.0	[7.4,13.5]	10.4	[7.6,14.1]	11.5	[7.7,16.8]	15.6	[10.2,23.1]
No (n=557)	90.0	[86.5,92.6]	89.6	[85.9,92.4]	88.5	[83.2,92.3]	84.4	[76.9,89.8]
Forgone care because no transportation (n=629)								
Yes (n=30)	6.7	[4.1,10.6]	5.2	[3.2,8.6]	9.9	[5.8,16.5]	9.2	[5.2,15.7]
No (n=599)	93.3	[89.4,95.9]	94.8	[91.4,96.8]	90.1	[83.5,94.2]	90.8	[84.3,94.8]
Foregone checkup due to cost[1] (n=393)								
Yes (n=47)	13.9	[9.7,19.6]	12.9	[9.0,18.3]	16.5	[10.2,25.4]	13.1	[7.7,21.5]
No (n=346)	86.1	[80.4,90.3]	87.1	[81.7,91.0]	83.5	[74.6,89.8]	86.9	[78.5,92.3]
Forgone specialty care due to cost[2] (n=393)								
Yes (n=79)	24.5	[18.7,31.4]	25.7	[19.6,32.9]	26.0	[18.1,35.7]	33.8	[23.0,46.5]
No (n=314)	75.5	[68.6,81.3]	74.3	[67.1,80.4]	74.0	[64.3,81.9]	66.2	[53.5,77.0]

PCP visit in the past 12 months								
Yes (n=3,386)	89.6	[87.8,91.1]	90.5	[88.7,92.0]	90.1	[87.3,92.4]	92.4	[88.8,94.9]
No (n=453)	10.2	[8.7,12.0]	9.3	[7.8,11.0]	9.7	[7.5,12.6]	7.2	[4.7,10.8]
Don't Know (n=12)	0.2	[0.1,0.5]	0.3	[0.1,0.6]	0.1	[0.0,0.5]	0.4	[0.1,1.5]
Regular place of care before HMP enrollment (n=4,084)								
Yes (n=3,051)	77.2	[75.1,79.1]	77.2	[75.0,79.2]	78.3	[75.3,80.9]	75.1	[70.8,78.9]
No (n=955)	21.6	[19.7,23.6]	21.5	[19.5,23.6]	21.2	[18.5,24.1]	22.0	[18.4,26.1]
NA (n=73)	1.1	[0.7,1.7]	1.2	[0.8,1.8]	0.5	[0.2,1.2]	2.6	[1.4,4.9]
Don't know (n=5)	0.1	[0.0,0.4]	0.2	[0.1,0.5]	0.1	[0.0,0.6]	0.3	[0.1,1.4]
Regular place of care before HMP enrollment--location (n=3,051)								
Clinic (n=557)	17.4	[15.5,19.4]	17.5	[15.5,19.6]	16.2	[13.5,19.4]	17.3	[13.3,22.1]
Doctor's office (n=1,498)	47.3	[44.7,49.9]	47.0	[44.3,49.7]	49.9	[45.9,53.9]	46.8	[41.7,51.9]
Urgent care/walk-in (n=529)	16.1	[14.3,18.1]	16.3	[14.4,18.4]	14.5	[12.1,17.3]	13.0	[10.3,16.4]
Emergency room (n=409)	17.3	[15.3,19.5]	17.5	[15.4,19.8]	16.8	[14.0,20.0]	19.9	[16.0,24.5]
Other place (n=56)	1.8	[1.3,2.6]	1.7	[1.1,2.5]	2.5	[1.5,4.0]	3.0	[1.7,5.4]
Don't know (n=2)	0.1	[0.0,0.3]	0.1	[0.0,0.4]	0.1	[0.0,0.7]	0	
Regular place of care past 12 months (n=4,088)								
Yes (n=3,850)	95.2	[93.8,96.3]	96.0	[94.7,97.0]	94.7	[92.4,96.4]	93.2	[89.4,95.7]
No (n=194)	4.1	[3.1,5.4]	3.5	[2.6,4.8]	4.4	[2.9,6.4]	5.0	[2.9,8.3]
NA (n=44)	0.7	[0.4,1.4]	0.5	[0.3,0.9]	0.9	[0.3,2.6]	1.8	[0.7,4.9]
Regular place of care past 12 months--location (n=3,850)								
Clinic (n=640)	16.0	[14.3,17.8]	16.5	[14.7,18.4]	14.4	[12.2,16.9]	17.3	[14.0,21.1]
Doctor's office (n=2,934)	77.1	[75.0,79.0]	76.7	[74.6,78.8]	79.7	[76.8,82.4]	75.9	[71.6,79.8]
Urgent care/walk-in (n=181)	4.8	[3.8,6.0]	4.6	[3.5,5.9]	3.8	[2.6,5.6]	4.1	[2.3,7.0]
Emergency room (n=65)	1.5	[1.1,2.2]	1.6	[1.1,2.3]	1.2	[0.8,2.1]	1.7	[0.8,3.4]
Other place (n=29)	0.6	[0.4,1.0]	0.6	[0.3,1.0]	0.8	[0.4,1.7]	1.1	[0.4,2.8]
Don't know (n=1)			0		0		0	

[1] Going without a checkup because 'you were worried about the cost,' 'you did not have health insurance,' 'the doctor or hospital wouldn't accept your health insurance,' or 'your health plan wouldn't pay for the treatment.'

[2] Going without specialty care because 'you were worried about the cost,' 'you did not have health insurance,' 'the doctor or hospital wouldn't accept your health insurance,' or 'your health plan wouldn't pay for the treatment.'

Impact on Those with Mood Disorder and Substance Use Disorder

Table 33. Regular Source of Care Prior to HMP Among Those with a Mood Disorder and Among Those with a Substance Use Disorder

	In the 12 months before enrolling in the Healthy Michigan Plan, was there a place that you usually would go to for a checkup, when you felt sick, or when you wanted advice about your health?								
	Yes		No		NA		Don't know		*P*-value[1]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Mood disorder									0.002
Yes (n=1,287)	78.0	[75.0,80.7]	21.4	[18.7,24.4]	0.5	[0.2,1.2]	0.1	[0.0,0.6]	
No (n=2,781)	71.9	[69.6,74.0]	25.2	[23.2,27.4]	2.7	[2.0,3.7]	0.2	[0.1,0.5]	
Don't know (n=10)	100.0		0		0		0		
Total (n=4,078)	73.8	[72.1,75.5]	24.0	[22.3,25.7]	2.1	[1.5,2.8]	0.1	[0.1,0.4]	
Substance use disorder									0.650
Yes (n=165)	79.6	[70.9,86.3]	20.0	[13.5,28.8]	0.3	[0.0,2.3]	0		
No (n=3,910)	73.5	[71.7,75.2]	24.2	[22.5,26.0]	2.1	[1.6,2.9]	0.2	[0.1,0.4]	
Don't know (n=7)	87.9	[43.9,98.5]	12.1	[1.5,56.1]	0		0		
Total (n=4,082)	73.8	[72.0,75.5]	24.0	[22.4,25.8]	2.1	[1.5,2.8]	0.1	[0.1,0.4]	

[1] Pearson chi-square analyses

Table 34. Type of Regular Source of Care Prior to HMP Among Those with a Mood Disorder and Among Those with a Substance Use Disorder

	[If Yes-Regular source of care prior to HMP] What kind of place was it?												
	Clinic		Doctor's office		Urgent care/walk-in		Emergency room		Other place		Don't know		*P*-value[1]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Mood disorder													0.117
Yes (n=1,013)	16.0	[13.3,19.0]	49.9	[45.9,53.9]	14.5	[12.1,17.4]	17.0	[14.2,20.3]	2.5	[1.5,4.1]	0.1	[0.0,0.7]	
No (n=2,026)	17.8	[15.8,20.1]	47.0	[44.2,49.8]	18.0	[15.9,20.3]	15.7	[13.7,18.0]	1.4	[1.0,2.2]	0	[0.0,0.3]	
Don't know (n=10)	3.1	[0.4,20.8]	54.6	[20.1,85.2]	0		42.3	[13.2,78.0]	0		0		
Total (n=3,049)	17.2	[15.5,18.9]	48.0	[45.7,50.3]	16.8	[15.2,18.5]	16.3	[14.6,18.1]	1.8	[1.3,2.4]	0.1	[0.0,0.2]	

Substance use disorder													<0.001
Yes (n=131)	12.2	[7.4,19.5]	32.9	[23.1,44.4]	16.1	[9.6,25.9]	37.0	[27.1,48.1]	1.1	[0.2,4.6]	0.7	[0.1,5.0]	
No (n=2,913)	17.4	[15.7,19.3]	48.6	[46.2,50.9]	16.8	[15.2,18.7]	15.3	[13.6,17.2]	1.8	[1.3,2.5]	0	[0.0,0.2]	
Don't know (n=6)	0		100.0		0		0		0		0		
Total (n=3,050)	17.2	[15.5,18.9]	48.0	[45.7,50.3]	16.8	[15.1,18.5]	16.2	[14.6,18.1]	1.8	[1.3,2.4]	0.1	[0.0,0.2]	

[1] Pearson chi-square analyses

Table 35. Regular Source of Care with HMP Among Those with a Mood Disorder and Among Those with a Substance Use Disorder

	In the last 12 months, is there a place you usually go when you need a checkup, feel sick, or want advice about your health?						
	Yes		No		NA		*P*-value[1]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Mood disorder							0.028
Yes (n=1,288)	95.2	[93.0,96.7]	3.9	[2.6,5.7]	0.9	[0.3,2.6]	
No (n=2,784)	90.9	[89.1,92.4]	7.3	[6.0,8.9]	1.8	[1.2,2.9]	
Don't know (n=10)	93.9	[64.8,99.2]	0		6.1	[0.8,35.2]	
Total (n=4,082)	92.2	[90.8,93.4]	6.2	[5.2,7.4]	1.6	[1.1,2.4]	
Substance use disorder							0.803
Yes (n=165)	94.0	[85.2,97.7]	6.0	[2.3,14.8]	0		
No (n=3,914)	92.1	[90.7,93.3]	6.2	[5.2,7.5]	1.6	[1.1,2.5]	
Don't know (n=7)	100.0		0		0		
Total (n=4,086)	92.2	[90.8,93.4]	6.2	[5.2,7.4]	1.6	[1.0,2.4]	

[1] Pearson chi-square analyses

Table 36. Type of Regular Source of Care with HMP Among Those with a Mood Disorder and Among Those with a Substance Use Disorder

	[If Yes-Regular source of care with HMP] What kind of place was it?												
	Clinic		Doctor's office		Urgent care/walk-in		Emergency room		Other place		Don't know		*P*-value[1]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Mood disorder													0.058
Yes (n=1,245)	14.6	[12.3,17.1]	79.5	[76.6,82.1]	3.9	[2.6,5.6]	1.3	[0.8,2.1]	0.8	[0.4,1.7]	0		
No (n=2,590)	17.4	[15.6,19.4]	73.2	[70.9,75.4]	6.7	[5.4,8.2]	1.9	[1.4,2.6]	0.8	[0.5,1.3]	0	[0.0,0.3]	
Don't know (n=9)	0		96.7	[77.8,99.6]	3.3	[0.4,22.2]	0		0		0		
Total (n=3,844)	16.5	[15.0,18.0]	75.2	[73.4,77.0]	5.8	[4.8,6.9]	1.7	[1.3,2.2]	0.8	[0.5,1.2]	0	[0.0,0.2]	
Substance use disorder													0.815
Yes (n=159)	17.4	[11.0,26.4]	71.2	[61.0,79.6]	5.8	[2.0,15.5]	3.6	[1.4,9.0]	2.0	[0.6,7.3]	0		
No (n=3,682)	16.5	[15.0,18.1]	75.4	[73.5,77.1]	5.8	[4.8,6.9]	1.6	[1.2,2.1]	0.7	[0.5,1.1]	0	[0.0,0.2]	
Don't know (n=7)	6.8	[0.8,39.7]	93.2	[60.3,99.2]	0		0		0		0		
Total (n=3,848)	16.5	[15.1,18.1]	75.2	[73.4,77.0]	5.8	[4.8,6.9]	1.7	[1.3,2.2]	0.8	[0.5,1.2]	0	[0.0,0.2]	

[1] Pearson chi-square analyses

Table 37. Emergency Room Use in Past 12 Months Among Those with a Mood Disorder and Among Those with a Substance Use Disorder

	Any ER visits past 12 months						
	Yes		No		Don't know		*P*-value[1]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Mood disorder							<0.001
Yes (n=1,288)	50.5	[47.0,54.0]	48.1	[44.6,51.6]	1.4	[0.7,2.8]	
No (n=2,786)	31.9	[29.7,34.2]	67.9	[65.6,70.1]	0.2	[0.1,0.5]	
Don't know (n=10)	61.5	[23.3,89.4]	38.5	[10.6,76.7]	0		
Total (n=4,084)	37.7	[35.8,39.6]	61.8	[59.8,63.7]	0.6	[0.3,1.0]	
Substance use disorder							<0.001
Yes (n=165)	60.4	[50.7,69.3]	38.7	[29.9,48.4]	0.9	[0.1,5.9]	
No (n=3,916)	36.6	[34.7,38.5]	62.9	[60.9,64.8]	0.6	[0.3,1.0]	
Don't know (n=7)	88.3	[56.5,97.8]	11.7	[2.2,43.5]	0		
Total (n=4,088)	37.7	[35.8,39.6]	61.8	[59.8,63.7]	0.6	[0.3,1.0]	

[1] Pearson chi-square analyses

Table 38. Factors Associated with ER Use Among HMP Enrollees

	Outcome: Emergency Room Visit in Past 12 Months		
	aOR	95% CI	*P*-value
Predictors:			
Age	0.979	[0.9716, 0.98549]	0.001
FPL	0.998	[0.9958, 0.99922]	0.004
Hypertension diagnosis[1]	1.795	[1.485, 2.16907]	0.001
Stroke diagnosis[1]	1.999	[1.1728, 3.40759]	0.011
Asthma diagnosis[1]	1.507	[1.2104, 1.87552]	0.001
COPD diagnosis[1]	2.118	[1.6104, 2.78609]	0.001
Substance use disorder diagnosis[1]	2.395	[1.5293, 3.74951]	0.001

aOR = adjusted odds ratio; CI = confidence interval; HMP = Healthy Michigan Plan

NOTE: The odds ratios presented here represent the results of a single logistic regression model adjusting for age, FPL, and presence or absence of the listed diagnoses.

[1]Diagnoses were dichotomized as not present (0) vs. present (1).

Table 39. Perceived Access to Mental Health Care Among Those with a Mood Disorder and Among Those with a Substance Use Disorder

	Would you say that your ability to get mental health care through the Healthy Michigan Plan is better, worse, or about the same, compared to before?								
	Better		Worse		About the same		Don't know		*P*-value[1]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Mood disorder									<0.001
Yes (n=1,287)	46.2	[42.7,49.7]	6.3	[4.8,8.3]	27.2	[24.1,30.5]	20.3	[17.6,23.2]	
No (n=2,781)	19.4	[17.5,21.5]	0.8	[0.5,1.2]	21.6	[19.6,23.7]	58.2	[55.8,60.6]	
Don't know (n=10)	7.2	[1.5,28.4]	0		24.0	[5.0,65.6]	68.8	[31.1,91.5]	
Total (n=4,078)	27.5	[25.8,29.4]	2.5	[1.9,3.1]	23.3	[21.6,25.1]	46.7	[44.8,48.7]	
Substance use disorder									<0.001
Yes (n=165)	46.6	[37.2,56.3]	3.0	[1.2,7.4]	22.8	[16.1,31.2]	27.6	[19.1,38.1]	
No (n=3,910)	26.7	[24.9,28.6]	2.5	[1.9,3.2]	23.2	[21.5,25.1]	47.6	[45.6,49.6]	
Don't know (n=7)	11.7	[2.2,43.5]	0		64.5	[24.6,91.0]	23.8	[4.8,65.8]	
Total (n=4,082)	27.5	[25.8,29.3]	2.5	[1.9,3.2]	23.3	[21.6,25.1]	46.7	[44.8,48.7]	

[1] Pearson chi-square analyses

Table 40. Perceived Access to Substance Use Treatment Among Those with a Substance Use Disorder

	Would you say that your ability to get substance use treatment services through the Healthy Michigan Plan is better, worse, or about the same, compared to before?								
	Better		Worse		About the same		Don't know		*P*-value[1]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Substance use disorder									<0.001
Yes (n=165)	48.3	[38.7,58.1]	1.7	[0.4,6.6]	16.4	[11.0,23.7]	33.6	[25.2,43.1]	
No (n=3,909)	8.1	[7.0,9.4]	0.1	[0.1,0.3]	8.9	[7.7,10.3]	82.8	[81.1,84.4]	
Don't know (n=7)	6.8	[0.8,39.7]	0		54.7	[16.4,88.1]	38.6	[9.9,78.2]	
Total (n=4,081)	9.8	[8.6,11.1]	0.2	[0.1,0.4]	9.3	[8.1,10.6]	80.7	[79.0,82.3]	

[1] Pearson chi-square analyses

Table 41. Change in Mental Health Status Among Those with a Mood Disorder and Among Those with a Substance Use Disorder

	Overall, since you enrolled in Healthy Michigan Plan, would you say your mental and emotional health has gotten better, stayed the same, or gotten worse?								
	Gotten better		Stayed the same		Gotten worse		Don't know		*P*-value[1]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Mood disorder									<0.001
Yes (n=1,286)	48.9	[45.4,52.4]	39.8	[36.5,43.3]	10.9	[8.9,13.3]	0.4	[0.2,0.9]	
No (n=2,778)	33.3	[31.1,35.6]	64.4	[62.1,66.7]	1.8	[1.3,2.4]	0.5	[0.3,0.9]	
Don't know (n=10)	82.2	[53.9,94.8]	14.7	[3.9,42.7]	3.1	[0.4,20.8]	0		
Total (n=4,074)	38.2	[36.3,40.2]	56.7	[54.7,58.7]	4.6	[3.8,5.4]	0.5	[0.3,0.7]	
Substance use disorder									<0.001
Yes (n=165)	50.7	[41.0,60.3]	40.5	[31.2,50.5]	8.8	[4.6,16.1]	0		
No (n=3,906)	37.6	[35.7,39.6]	57.5	[55.5,59.5]	4.3	[3.6,5.2]	0.5	[0.3,0.8]	
Don't know (n=7)	46.5	[12.1,84.5]	11.7	[1.4,55.1]	41.8	[7.9,85.8]	0		
Total (n=4,078)	38.2	[36.3,40.1]	56.7	[54.8,58.7]	4.6	[3.9,5.5]	0.5	[0.3,0.7]	

[1] Pearson chi-square analyses

Table 42. Perceived Impact of HMP Among Those with a Mood Disorder and Among Those with a Substance Use Disorder

	Having the Healthy Michigan Plan has helped me live a better life.												
	Strongly agree		Agree		Neutral		Disagree		Strongly disagree		Don't know		*P*-value[1]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Mood disorder													<0.001
Yes (n=1,286)	32.1	[28.9,35.5]	59.9	[56.4,63.4]	4.3	[3.0,6.0]	2.4	[1.6,3.7]	0.6	[0.3,1.4]	0.6		
No (n=2,781)	21.9	[20.0,23.9]	66.1	[63.8,68.3]	8.1	[6.8,9.5]	3.2	[2.5,4.1]	0.2	[0.1,0.3]	0.6	[0.3,1.2]	
Don't know (n=10)	36.2	[10.5,73.3]	63.8	[26.7,89.5]	0		0		0		0		
Total (n=4,077)	25.1	[23.4,26.8]	64.2	[62.3,66.1]	6.9	[5.9,8.0]	2.9	[2.4,3.7]	0.3	[0.2,0.5]	0.6	[0.3,1.1]	
Substance use disorder													<0.001
Yes (n=165)	35.5	[27.2,44.8]	60.3	[50.7,69.1]	1.6	[0.6,4.4]	2.6	[0.4,13.8]	0		0		
No (n=3,909)	24.6	[22.9,26.3]	64.5	[62.5,66.4]	7.1	[6.1,8.3]	2.9	[2.3,3.6]	0.3	[0.2,0.6]	0.6	[0.4,1.1]	
Don't know (n=7)	34.8	[8.5,75.4]	23.4	[5.3,62.4]	0		41.8	[7.9,85.8]	0		0		
Total (n=4,081)	25.0	[23.4,26.8]	64.2	[62.3,66.1]	6.9	[5.9,8.0]	2.9	[2.4,3.7]	0.3	[0.2,0.5]	0.6	[0.3,1.1]	

[1] Pearson chi-square analyses

Table 43. Change in Frequency of Involvement with Family and Friends Among Those with a Mood Disorder and Among Those with a Substance Use Disorder

	Since enrolling in the Healthy Michigan Plan are you involved with your family, friends or community more, less, or about the same?								
	More		Less		About the same		Don't know		*P*-value[1]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Mood disorder									<0.001
Yes (n=1,287)	21.0	[18.1,24.2]	8.3	[6.5,10.5]	70.0	[66.6,73.2]	0.7	[0.3,1.5]	
No (n=2,774)	12.6	[11.1,14.3]	2.6	[2.0,3.5]	84.2	[82.4,85.9]	0.6	[0.3,1.2]	
Don't know (n=10)	4.6	[0.6,28.5]	25.2	[3.9,73.9]	70.2	[26.1,94.0]	0		
Total (n=4,071)	15.1	[13.7,16.6]	4.4	[3.7,5.3]	79.8	[78.2,81.4]	0.6	[0.3,1.1]	
Substance use disorder									0.001
Yes (n=165)	23.2	[16.0,32.2]	8.3	[4.0,16.4]	67.4	[57.6,75.9]	1.1	[0.2,7.6]	
No (n=3,903)	14.8	[13.3,16.3]	4.2	[3.5,5.1]	80.4	[78.8,82.0]	0.6	[0.3,1.1]	
Don't know (n=7)	23.8	[5.4,63.1]	41.8	[7.9,85.8]	34.4	[8.4,75.0]	0		
Total (n=4,075)	15.1	[13.7,16.6]	4.4	[3.7,5.3]	79.8	[78.2,81.4]	0.6	[0.4,1.1]	

[1] Pearson chi-square analyses

Table 44. Went to ER Because of Proximity Among Those with a Mood Disorder and Among Those with a Substance Use Disorder

	Went to the ER because it's your closest place to receive care[1]						
	Yes		No		Don't know		*P*-value[2]
	Row %	95% CI	Row %	95% CI	Row %	95% CI	
Mood disorder							0.940
Yes (n=398)	75.1	[69.5,80.1]	24.1	[19.3,29.8]	0.7	[0.1,3.6]	
No (n=575)	74.4	[69.9,78.4]	24.6	[20.7,29.1]	1.0	[0.4,2.3]	
Don't know (n=4)	89.8	[45.8,98.9]	10.2	[1.1,54.2]	0		
Total (n=977)	74.8	[71.3,77.9]	24.3	[21.2,27.8]	0.9	[0.4,1.9]	
Substance use disorder							0.035
Yes (n=70)	87.6	[77.6,93.5]	10.1	[5.3,18.5]	2.3	[0.3,14.7]	
No (n=907)	73.9	[70.2,77.2]	25.4	[22.1,29.0]	0.8	[0.3,1.8]	
Don't know (n=1)	0		100.0		0		
Total (n=978)	74.8	[71.4,78.0]	24.3	[21.2,27.7]	0.9	[0.4,1.9]	
Mood or substance use disorder							0.791
No (n=559)	74.3	[69.7,78.3]	25.0	[21.0,29.5]	0.7	[0.3,1.7]	
Yes (n=418)	75.5	[70.0,80.3]	23.4	[18.7,28.8]	1.1	[0.3,3.8]	
Total (n=977)	74.8	[71.3,77.9]	24.3	[21.2,27.8]	0.9	[0.4,1.9]	

[1] Asked of respondents with an ER visit in the past 12 months who said they did not try to contact their usual provider's office to get help or advice before going to the ER

[2] Pearson chi-square analyses

The Healthy Michigan Plan
Public Act 107 of 2013 §105d (8), (9)
2015 Report on Uncompensated Care and Insurance Rates

December 31, 2016

Submitted to the Michigan Department of Health and Human Services
and the Michigan Department of Insurance and Financial Services

Prepared by the University of Michigan Institute for Healthcare Policy & Innovation
in collaboration with the University of Michigan School of Public Health

§*105d (8)* The program described in this section is created in part to extend health coverage to the state's low-income citizens and to provide health insurance cost relief to individuals and to the business community by reducing the cost shift attendant to uncompensated care. Uncompensated care does not include courtesy allowances or discounts given to patients. The Medicaid hospital cost report shall be part of the uncompensated care definition and calculation. In addition to the Medicaid hospital cost report, the department of community health shall collect and examine other relevant financial data for all hospitals and evaluate the impact that providing medical coverage to the expanded population of enrollees described in subsection (1)(a) has had on the actual cost of uncompensated care. This shall be reported for all hospitals in the state. By December 31, 2014, the department of community health shall make an initial baseline uncompensated care report containing at least the data described in this subsection to the legislature and each December 31 after that shall make a report regarding the preceding fiscal year's evidence of the reduction in the amount of the actual cost of uncompensated care compared to the initial baseline report. The baseline report shall use fiscal year 2012-2013 data. Based on the evidence of the reduction in the amount of the actual cost of uncompensated care borne by the hospitals in this state, beginning April 1, 2015, the department of community health shall proportionally reduce the disproportionate share payments to all hospitals and hospital systems for the purpose of producing general fund savings. The department of community health shall recognize any savings from this reduction by September 30, 2016. All the reports required under this subsection shall be made available to the legislature and shall be easily accessible on the department of community health's website.

§*105d (9)* The department of insurance and financial services shall examine the financial reports of health insurers and evaluate the impact that providing medical coverage to the expanded population of enrollees described in subsection (1)(a) has had on the cost of uncompensated care as it relates to insurance rates and insurance rate change filings, as well as its resulting net effect on rates overall. The department of insurance and financial services shall consider the evaluation described in this subsection in the annual approval of rates. By December 31, 2014, the department of insurance and financial services shall make an initial baseline report to the legislature regarding rates and each December 31 after that shall make a report regarding the evidence of the change in rates compared to the initial baseline report. All the reports required under this subsection shall be made available to the legislature and shall be made available and easily accessible on the department of community health's website.

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Executive Summary

This report, pursuant to §105d (8) and (9) of Public Act 107 of 2013, provides the annual update to the baseline estimate of uncompensated care borne by Michigan hospitals as it relates to insurance rates and rate setting.

The main source of data for the uncompensated care portion is cost reports that hospitals submit annually to the Michigan Department of Health and Human Services (MDHHS). The initial report, submitted in December 2014, provided baseline data on hospital uncompensated care from 2013, i.e., prior to the implementation of the Healthy Michigan Plan (HMP). The December 2015 report presented data from 2014. Because of reporting lags and the timing of hospital fiscal years, these data represented post-HMP experience for only a subset of hospitals, and even in those cases the most recent data represented a mix of pre- and post-HMP data. The most recent data used in this report were submitted in 2015. For most hospitals, these data pertain to fiscal year 2015 and represent a full 12 months of post-HMP experience. For a subset of hospitals, the most recent data available are for fiscal year 2014 and therefore represent a mix of pre- and post-HMP data. We present results for 2013, 2014 and 2015, though for the purposes of evaluating the effect of the HMP on hospital uncompensated care, the cleanest comparisons are between 2013 and 2015.

Two main sources of data, key informant interviews and Michigan DIFS rate filings, provide information on the contribution of uncompensated care to premium rates, rate change filings, and the net effect on rates overall, in the year before and each of the two years following implementation of the Healthy Michigan Plan.

Key findings: §105d (8) Uncompensated Care

The cost report data indicate that the cost of uncompensated care provided by Michigan hospitals fell dramatically after the implementation of the Healthy Michigan Plan. Comparing data from 2013 and 2015 for a consistent set of hospitals, uncompensated care costs decreased by almost 50 percent. For the average hospital, annual uncompensated care expenses fell from $7.21 million to $3.77 million. Expressed as a percentage of total hospital expenses, uncompensated care decreased from 5.2 percent to 2.9 percent. Over 90 percent of hospitals submitting data for both FY 2013 and FY 2015 saw a decline in uncompensated care between those two years.

Key findings: §105d (9) Insurance Premium Rates

There was no evidence from the interviews and rate filings that the Healthy Michigan Plan affected health plan premium rates. Review and analysis of DIFS rate filings showed changes in the increases requested in premium rates by year and by product and market. The average weighted premium rate increase requested in filings declined from 2013-2015: 7.55% in 2013, 5.77% in 2014, and 5.20% in 2015. While the requested rate increase varied by products and markets, reasons given in the filings for the rate requests were related most often to increasing medical and pharmaceutical costs.

Interviews with key stakeholders revealed concerns with increasing medical and pharmacy costs. Some respondents expressed concerns about future premium changes as a result of changes in the methodology for determining risk adjustment or expiration in 2016 of the Federal reinsurance program. With the reinsurance program, all individual, small group, and large group market issuers of fully-insured major medical products, as well as self-funded plans, contributed funds to the reinsurance program since 2014, with proceeds distributed to insurers who had enrollees with high medical expenses. For 2016, these reinsurance payments reduced individual market premiums by an estimated 4 to 6 percent. Without the reinsurance program, some insurers will need to raise their premiums in 2017 by a comparable percentage to make up for the loss of the reinsurance funds.[1]

The report details the decrease in uncompensated care costs since the Medicaid expansion; however, there was no evidence from the interviews and rate filings that the Healthy Michigan Plan affected health plan premium negotiations or premium rates.

Challenges in Quantifying the Impact of Uncompensated Care Costs and the Healthy Michigan Plan on Premium Rates

Developing health insurance premium rates involves numerous stakeholders, such as insurers, hospitals, employers, physicians, pharmacy benefit managers, pharmaceutical and medical device manufacturers, to name a few. There are also complex rate setting methodologies, and propriety information, overlaid on continually changing medical and insurance markets. In addition, not all plans and policies offered in a state are subject to regulation, review, and approval by the state. There is no single source of data that provides all necessary elements for analysis. These and other factors make it difficult to attribute observed premium rate changes to the Healthy Michigan Plan.

The academic literature in health economics and health policy does not provide direct theoretical or empirical support for a transfer of the costs of uncompensated care or of shortfalls in Medicare and Medicaid payments to private payers, despite perceptions of the existence of cost shift.[2] Cost shifting has been defined as "the phenomenon in which changes in administered prices of one payer lead to compensating changes in prices charged to other payers."[3] Prior research demonstrates that uncompensated care as a share of overall health care costs has remained relatively flat while the private payment to cost ratio has increased, suggesting that factors other than changes in uncompensated care explain changes in private insurance premiums.[4]

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[1] http://kff.org/private-insurance/perspective/what-to-look-for-in-2017-aca-marketplace-premium-changes/

[2] Couglin TA, Holahan, J, Caswell, K, McGrath, M. Uncompensated care for the uninsured: A detailed examination. Kaiser Family Foundation report. May 30, 2013. Available from: http://kff.org/report-section/uncompensated-care-for-the-uninsured-in-2013-a-detailed-examination-cost-shifting-and-remaining-uncompensated-care-costs-8596/

[3] Ginsburg P. Can hospitals and physicians shift the effects of cuts in Medicare reimbursement to private payers? Health Aff [Internet]. 2003;(Web Exclusive):W3–472 to W3–479. Available from: http://content.healthaffairs.org/content/early/2003/10/08/hlthaff.w3.472.full.pdf

[4] Forslund TO. Cost shifting and the impact of new hospitals on existing markets. Wyoming Department of Health. 2014.

A number of factors contribute to changes in private insurance premiums, with changes in public payer rates and in uncompensated care being just two of these factors. Even in situations where a hospital has a large share of market power, hospitals may employ other strategies rather than increase prices when faced with revenue shortfalls, including cost cutting and "volume shifting," and lowering private prices to attract more private volume.[5] Even if cost shifting does occur at its maximum, the amount that would potentially be shifted to employers is less than 3% of private insurance premiums.[6] The complex interplay of factors that explain changes in private insurance rates, as also noted in the literature, makes it very difficult to attribute changes in insurance premiums to the reductions in uncompensated care resulting from the Healthy Michigan Plan.

Conclusion

Based on hospital cost reports submitted to MDHHS, Michigan hospitals experienced a substantial decline in the costs of uncompensated care in FY 2015 compared to FY 2013. Yet rate filings and interviews with key stakeholders do not demonstrate a connection between reductions in uncompensated care and premium rates.

[5] Frakt A. How much do hospitals cost shift? A review of the evidence. Milbank Q. 2011;89(1):90–130.
[6] Couglin TA, Holahan, J, Caswell, K, McGrath, M. Uncompensated care for the uninsured: A detailed examination. Kaiser Family Foundation report. May 30, 2013. Available from: http://kff.org/report-section/uncompensated-care-for-the-uninsured-in-2013-a-detailed-examination-cost-shifting-and-remaining-uncompensated-care-costs-8596/

§105d (8): Uncompensated Care

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Introduction

In order to measure the effect of the Healthy Michigan Plan, §105(d)(8) of Public Act 107 requires the Department of Community Health (DCH), now the Department of Health and Human Services (DHHS), to publish annual reports on uncompensated care in Michigan. This section of the report, *The Healthy Michigan Plan: Uncompensated Care*, fulfills the requirement of §105(d)(8). The analysis is based on data from Medicaid cost reports submitted to the state annually from 2013 to 2015.

Background

The 2015 PA 107 report presented quarterly state-level data on inpatient hospital discharges from 2003 to the third quarter of 2014. These data revealed immediate changes in payer mix in Michigan after the implementation of the Healthy Michigan Plan. The Medicaid share of hospital discharges rose from 17 percent in the 1st quarter of 2014 – before HMP – to 20 percent in the 3rd quarter of 2014. At the same time the uninsured share of discharges also fell by three percentage points, from 4 percent to 1 percent. These sharp changes, which followed a decade in which payer mix shifted very gradually, suggested a significant effect of the Healthy Michigan Plan. Other published research using data from Michigan[7] and comparing a greater number of states that implemented the ACA Medicaid expansion also indicate a significant reduction in uninsured discharges and an increase in Medicaid discharges after Medicaid expansion.[8]

Data: Medicaid cost reports

Each year, Michigan hospitals submit cost reports to the State Medicaid program. Based on several data elements contained in these reports, it is possible to calculate the cost of uncompensated care provided by each hospital.

Uncompensated care is the sum of two different types of costs: charity care and bad debt. ***Charity care*** is the cost of medical care for which there was no expectation of payment because the patient has been deemed unable to pay. ***Bad debt*** is the cost of medical care for which there was an expectation of payment because the patient was deemed to be able to pay for care, but ultimately payment was not received. Both types of uncompensated care may arise from patients

[7] Davis MA, Gebremariam A, Ayanian JZ. Changes in insurance coverage among hospitalized non-elderly adults after Medicaid expansion in Michigan. JAMA 2016; 315:2617-8.
[8] Hempstead K, Cantor JC. State Medicaid expansion and changes in hospital volume according to payer. New England Journal of Medicine 2016; 374(2): 196-198. Nikpay S, Buchmueller T, Levy HG. 2016. Affordable Care Act Medicaid expansion reduced uninsured hospital stays in 2014. Health Affairs 2016; 35 (1):106-110.

who are uninsured or from those who are under-insured and unable to afford deductibles or other cost-sharing required by their insurance plans when they receive hospital care. Changes in Disproportionate Share Hospital (DSH) payments do not have a direct impact on uncompensated care. For more information on the definition of uncompensated care, please see Appendix A.

The cost reports for state fiscal year (FY) 2015 include data on 142 hospitals. Hospitals vary in the timing of their fiscal years and this variation affects the timing of when data is reported to the state. Table 1 summarizes the timing of hospital fiscal years and indicates how this timing affects our ability to measure changes in uncompensated care before and after the implementation of the Healthy Michigan Plan (HMP).

For hospitals with fiscal years ending in the first three quarters of the calendar year (i.e., before September 30) the most recent submission pertains to their 2015 fiscal year. Regardless of the exact timing, FY 2015 started after April 1, 2014. Thus, all data from FY 2015 represents 12 months of post-HMP experience. There is variation, however, in how data for FY 2014 lines up with the start of the HMP. For hospitals with fiscal years ending in the first quarter, FY 2014 ended before the start of HMP enrollment, which means that FY 2014 represents 12 months of pre-HMP data. In contrast, for hospitals with fiscal years ending in the second or third quarter, FY 2014 started before and ended after the establishment of the program. Thus, for these hospitals FY 2014 represents a mix of pre- and post-HMP experience. Hospitals with fiscal years ending in the fourth quarter always submit their cost report data with a lag. For this group, the most recent (2015) submission contains data from FY 2014. For a large majority of these hospitals, the fiscal year ends on December 31, which means that 9 months of FY 2014 fell in the post-HMP period.

Uncompensated care, FY 2013 to FY 2015

Table 2 presents data on hospital uncompensated care for FY 2013, FY 2014 and FY 2015. Two sets of results are presented for FY 2013 and FY 2014. One pertains to all hospitals reporting data for those years—142 hospitals in 2013 and 141 hospitals in 2014. To facilitate comparisons with FY 2015, results for 2013 and 2014 are also reported for the subset of hospitals for which FY 2015 data are available. Results for each individual hospital are reported in Appendix C Table 1.

The data show that all Michigan hospitals provided approximately $1.1 billion in uncompensated care in FY 2013, which represented 4.8 percent of total hospital expenses. This amount declined to $913.5 million in FY 2014, representing 4.1 percent of total hospital expenses. As noted, only a fraction of FY 2014 fell after the start of the HMP.

FY 2015 is the first fiscal year that began after the HMP was in place. Thus, the impact of the HMP is more readily seen by focusing on the 88 hospitals that reported data for 2013 and 2015.[9] In the baseline year, the average amount of uncompensated care for this subset of hospitals was lower than the average for all hospitals ($7.2 million vs. 7.8 million) though uncompensated care as a percentage of total expenses was slightly higher (5.2 percent vs. 4.8 percent). For these

[9] For one hospital that changed the timing of its fiscal year, no data from 2014 are available. This hospital is in the data set in both 2013 and 2015. Therefore, comparisons between those two years are for the same set of hospitals.

hospitals, the mean number of months of HMP exposure for this group in FY 2014 was 3.3 months. The results show that uncompensated care expenses fell 0.4 percentage points between FY 2013 and FY 2014, to an average of 4.8 percent. There was a further decline in FY 2015 to 2.9 percent of total expenses. For the 88 hospitals reporting 2015 data, the total amount of uncompensated care provided in 2015 was $332.1 million, or 53 percent of the amount of uncompensated care provided by those same hospitals in 2013.

Figure 1 presents the results in graphical form, breaking out the results for FY 2014 in a slightly different way. For that year, hospitals are grouped according to HMP exposure, i.e., the number of months in FY 2014 that fell after April 1, 2014, when the HMP plan started. It is important to note that the separate categories for FY 2014 consist of different hospitals, and therefore comparisons among the different results for 2014 should be interpreted cautiously. With that caveat noted, the data suggest that uncompensated care fell shortly after the HMP went into effect. Among hospitals for which half of FY 2014 occurred after the HMP was in place, uncompensated care was 4.3 percent of total expenses, reduced from 4.8 percent for all hospitals in 2013. Among hospitals with 9 months of post-HMP experience in FY 2014, uncompensated care was 2.9 percent of total expenses, essentially the same as the rate in 2015.

Figure 2 presents the full distribution of the change between 2013 and 2015 in uncompensated care as a percentage of total expenses for the 89 hospitals submitting data for both years. Uncompensated care fell as a percentage of expenses for 94 percent of these hospitals (83 out of 88). The median change was 2.0 percentage points, just slightly below the mean difference of 2.3 percentage points shown in Table 2. Thirty percent of hospitals experienced a decline of 3 percentage points or more.

Conclusion

This is the third in a series of annual reports analyzing changes in uncompensated care following the implementation of the Healthy Michigan Plan. This year's report is the first to present data representing a full year of experience after the program was in place (for most, but not all, hospitals). The results indicate a substantial decline in uncompensated care. Over 90 percent of hospitals submitting data for FY 2015 saw a decline in uncompensated care measured as a percentage of total expenses between 2013 and 2015. For this group as a whole, uncompensated care expenses fell nearly by half between 2013 and 2015.

Table 1. The Distribution of Michigan Hospitals by the Timing of their Fiscal Year and Availability of Medicaid Cost Report Data

FY ends in:		Data Available for Hospital Fiscal Year 2013	2014	2015
1st Quarter	number of hospitals	9	9	9
	months post-HMP	0	0	12
2nd Quarter	number of hospitals	61	60	60
	months post-HMP	0	3	12
3rd Quarter	number of hospitals	19	19	19
	months post-HMP	0	6	12
4th Quarter	number of hospitals	53	53	0
	months post-HMP	0	9	---

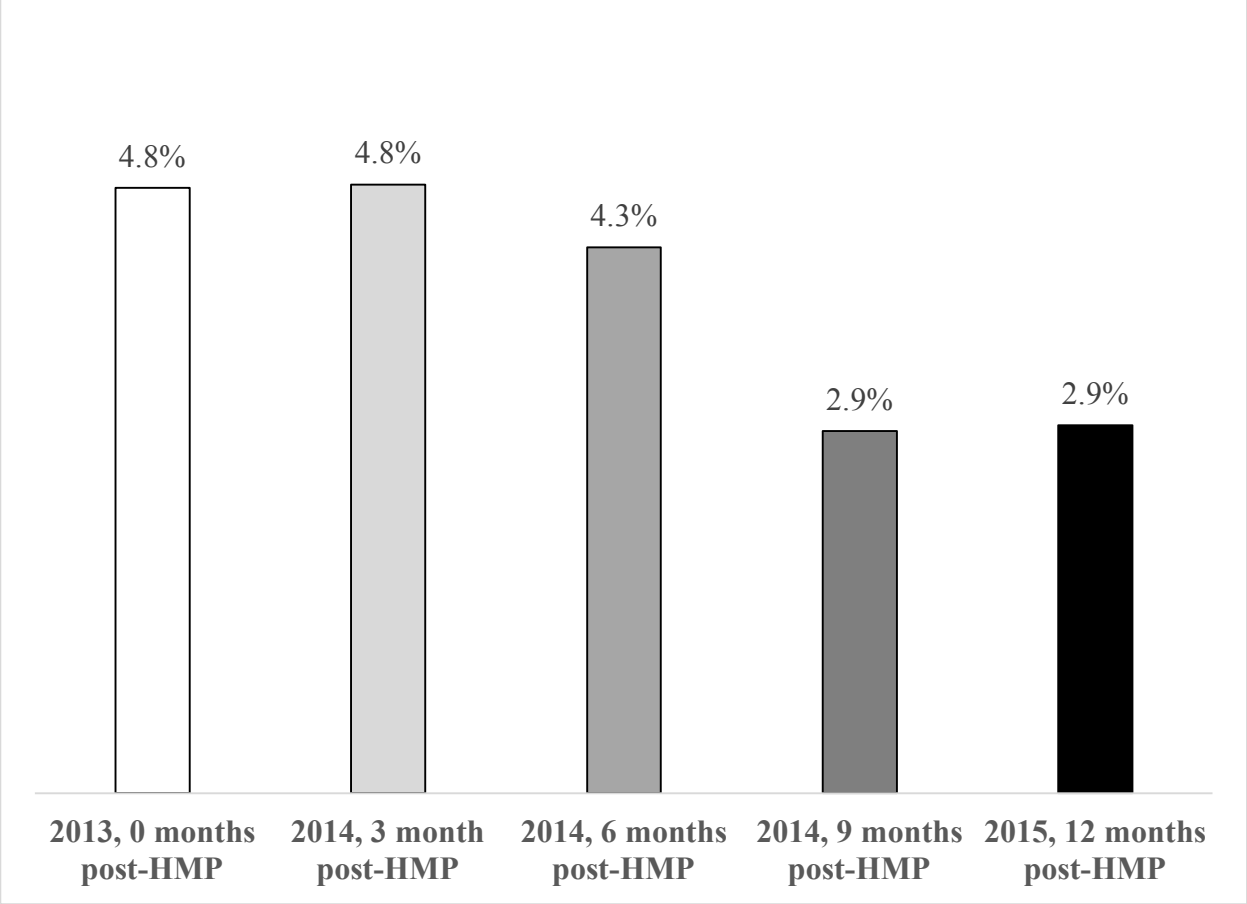
Notes: Hospitals are categorized according to the timing of the fiscal years. The first row in panel gives the number of hospitals in the category reporting data for each fiscal year. Because hospitals submit data with a lag, for hospitals with fiscal years ending in the fourth quarter, the 2015 submission pertains to their FY 2014. The second row in each panel gives the mean number of months in that fiscal year that fell after April 1, 2014.

Table 2. Uncompensated Care Costs, Hospital FY 2013, FY 2014 and FY 2015

	All Hospitals		Hospital FY Ends Q1 – Q3		
	2013	**2014**	**2013**	**2014**	**2015**
Number of Hospitals	142	141	88	87	88
Mean months post-HMP	0	5.4	0	3.3	12
Uncompensated Care Costs					
Total (millions)	$1110.4	$913.5	$627.0	$590.0	$332.1
Mean (millions)	$7.82	$6.47	$7.21	$6.78	$3.77
As a % of Total Costs	4.8%	4.1%	5.2%	4.8%	2.9%

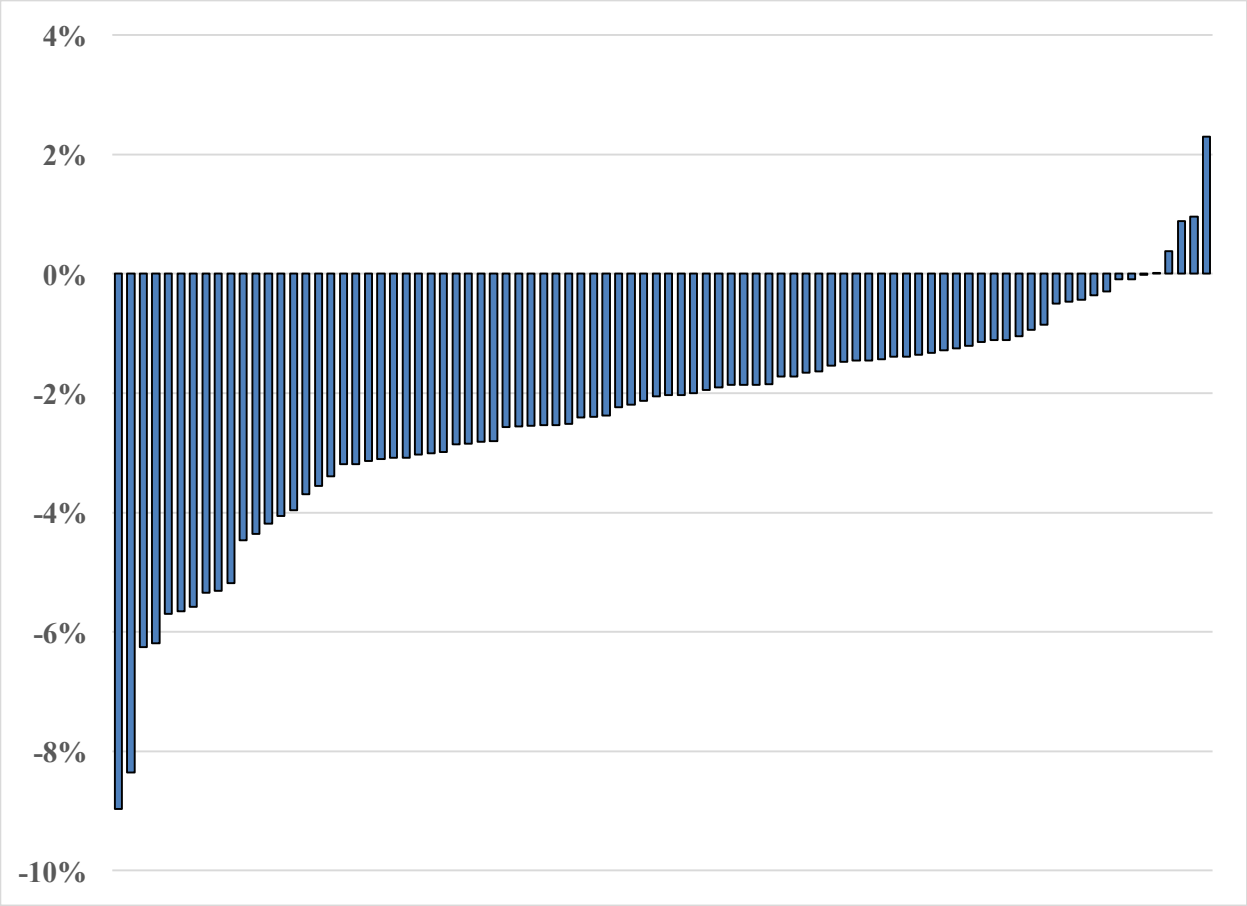
Notes: The figures for uncompensated care as a percentage of total hospital costs represent unweighted means.

Figure 1. Uncompensated Care as a Percentage of Total Expenses, by Exposure to the Healthy Michigan Plan, 2013 to 2015



Notes: The figures represent unweighted means for hospitals in each category. The first column presents data for all 142 hospitals that submitted data for FY 2013. This corresponds to column 1 of Table 2. The next 3 columns report FY 2014 results for hospitals with 3, 6 and 9 months of exposure to the HMP. The number of hospitals in these categories are 61, 19 and 53, respectively. Data are not reported for 9 hospitals for which FY 2014 ended before the HMP start date of April 1, 2014. FY 2015 data are for 88 hospitals that submitted data for that year. This figure corresponds to column 5 of Table 2.

Figure 2. Change in Uncompensated Care as a Percentage of Total Expenses Between 2013 and 2015 for Hospitals Reporting Data in Both Years



Notes: The sample consists of 88 hospitals for which FY 2015 data are available. Each bar represents the change for an individual hospital.

§105d (9): Insurance Premium Rates

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Introduction

To measure the effect the Healthy Michigan Plan "has had on the cost of uncompensated care as it relates to insurance rates and insurance rate change filings, as well as its resulting net effect on rates overall," §105d (9) of Public Act 107 of 2013 requires the Department of Insurance and Financial Services (DIFS) to make an annual report each December 31 regarding the evidence of the change in rates compared to the initial baseline report in December 2014. This section of the report, *The Healthy Michigan Plan: Insurance Premium Rates,* fulfills the requirement of §105d (9) of 2013.

Two main sources of data, key informant interviews and Michigan DIFS rate filings, provide information on the contribution of uncompensated care to premium rates, rate change filings, and the net effect on rates overall, in the year before and each of the two years following implementation of the Healthy Michigan Plan.

To summarize the complex processes of premium rate setting and factors that affect changes in those rates, and to provide context for the analysis, the appendices to this report provide a synopsis of the methodology for premium setting, a table of factors that contribute to rate increases, and additional figures referenced in the report.

Background

Gathering all the necessary data to determine the cost of uncompensated care as it relates to insurance premiums is challenging and complex. Determining the reasons and mechanisms behind changes in premium rates by different types of plans and in different markets requires actuarial science, as well as knowledge of the local, state, and federal business, health, and political environments. Additionally, some ACA regulations and guidance affect individual markets differently from small and large group markets, including some ACA provisions that sunset. For instance, the Federal transitional reinsurance program ends in 2016.

Developing health insurance premium rates involves numerous stakeholders, such as insurers, hospitals, employers, physicians, pharmacy benefit managers, pharmaceutical and medical device manufacturers, to name a few. There are also complex rate setting methodologies, and propriety information, overlaid on continually changing medical and insurance markets.

Additionally, not all plans offered in the state are subject to regulation, review, and approval by the state. More than half of Michigan employees of organizations offering health insurance are in self-insured plans; these employers are not subject to state plan rate review and approval, premium taxes, or mandated benefits. Rate filings do not include the detailed information required to determine the contribution of uncompensated care to rates, even for fully insured health plans that are subject to DIFS regulatory authority. In addition, contracts that might detail

the relationship between health care costs and insurance prices are often proprietary. Although DIFS and MDHHS collect data supporting their functions and mandates, they do not have access or authority to collect detailed data from those proprietary contracts.

There is no single source of data that provides all necessary elements for analysis. These and other factors make it difficult to attribute observed premium rate changes to the Healthy Michigan Plan.

To help inform understanding of insurance rates and rate changes in the year before and each of the two years following implementation of the Healthy Michigan Plan, the next sections of the report provides analysis of interviews with key informants and analysis of filings data available from DIFS.

Analysis of Key Informant Interviews

A stratified sampling approach used type and size of organization and region of the state to identify the interviewees.[10] Semi-structured telephone interviews were conducted in each of the last three years with Michigan employers, healthcare insurers, and healthcare providers.[11] The interviews focused on the respondent's experiences with and impressions of the effects of the Healthy Michigan Plan on premium rates and the processes used to determine those rates. Respondents were specifically asked to comment on premium rate negotiations and rate setting, and the role of uncompensated care costs in those processes.

Thirty-one employers, health insurers and healthcare providers provided responses in the summer 2016. Characteristics of respondents appear in Appendix D. Interviewees were designated decision-makers or persons with appropriate expertise and experience in their organizations; these included benefits managers, senior-level financial officers, executives, and contract negotiators.[12]

Although a small sample of employers cannot be representative of the state's business types, locations, size, industry, or insurance behaviors, we sought to include comments from employers from across the state who could contribute unique and varying perspectives that might be associated with public and employer opinion on the impact of HMP on health coverage in Michigan.

Interview Responses

Respondents' reports of factors affecting premium rates, and excerpts from their interviews appear in Appendix F. This section provides a summary of these responses by category of respondent.

[10] The Michigan Care Improvement Registry (MCIR) groups Michigan counties into six regions (https://www.mcir.org/). Key informant interviews for the three years used a convenience sample, loosely stratified by all six MCIR geographic regions with additional targeting in the southeast and southwest markets with the highest number of HMP enrollees, and a range of industry codes across the state.

[11] Given the Institutional Review Board (IRB) conditions of approval, no firms are identified by name in this report.

[12] The initial interviews for the 2013 baseline report were conducted with 29 Michigan-based employers. The 2014 report included completed interviews with 56 employers located in all MCIR sections of the state.

All Respondents

- Employers, health insurers, and healthcare providers did not identify the Healthy Michigan Plan or changes in uncompensated care as affecting insurance premium rates.

Employers

- Large employers were concerned about the current and future regulations on cost of benefits, risk pools, penalty payments, and special taxes.
- Large and small employers are seeking ways to reduce the costs of benefits through plan management and benefit design; large employers were using workplace wellness approaches to improve employee health and use of services.
- Large employers expressed concern about needing to offer less-competitive benefit packages in the future to avoid the Cadillac tax.
- Small employers expected instability in the individual and small group markets.
- Small employers noted their concern with their ability to offer health benefits to employees at an affordable price.

Hospitals and Healthcare Providers

- Healthcare providers noted fluctuations in patient volume related to changes in healthcare coverage. The changes in volume and patient insurance coverage affect operating margins that impact payment rates and negotiations.
- Hospitals noted concern with decreasing federal and nonfederal reimbursement rates relative to costs of providing services.
- Hospitals reported decreases in their bad debt post-ACA, market plans, and Medicaid expansion, but did not associate these policies with premium rate changes.
- Hospitals and hospital systems reported separately negotiated contracts with payers, but reported no detectible impact of uncompensated care or the Healthy Michigan Plan on those negotiations.
- Hospital uncompensated care costs have decreased since Medicaid expansion but it was unlikely that these decreases have a material impact on premium rates or are technically detectable in changes in premium rates.

Insurers and Health Plans

- Insurers were unable to negotiate for reductions in price increases as a result of the decrease in hospital uncompensated care costs.
- Insurers expressed concern over the increasing costs of pharmaceuticals and their impact on premiums.
- Insurers expressed concern about ending the federal transitional reinsurance program in 2017 and the effects on premiums.
- Insurers noted the impact on current and future revenues of the ACA regulations on risk adjustment and reinsurance.

Analysis of Department of Financial and Insurance Services (DIFS) Rate Filings

Each year, health plans are required to submit rates for review by DIFS. This requirement applies to health insurers selling individual plans, group conversion policies, Medicare supplemental

policies, small employer group plans, and plans sold by health maintenance organizations. DIFS does not set health insurance rates.[13] DIFS does not review the rates for government entities, commercial large group plans (coverage through an employer with more than 50 employees), or self-insured employers (health benefits provided by an employer with its own funds). Approximately 54% of private sector enrollees in Michigan firms offering health insurance are in self-insured plans. [14, 15]

In 2016, DIFS provided all health plan filings submitted and with dispositions in 2013, 2014, and 2015, with tracking codes to link individual filings for download from the public access System for Electronic Rate/Form Filing (SERFF) portal. Rate filings consist of multiple Federal and state-mandated forms, formats, and templates for each product.[16] The list of abstracted elements from filings from 2013, 2014, and 2015, as well as inclusions and exclusions in selection of filings for analysis appear in Appendix E. There is no specific line item or cell in the filings forms or templates for the cost of "uncompensated care" or its contribution to rates. Filings analysis includes only those filings that noted a requested increase or decrease in premium rates. New products were excluded due to the absent experience period**.**

To provide context for the analysis, and to summarize the processes of premium rate setting and review, Appendices G and H provide definitions, a synopsis of the methodology for premium setting, and a table of factors that contribute to rate increases.

Findings from Rate Filings Analysis

Table 4 presents selected characteristics of the filings by year. Appendix E supplements this table with additional analysis of market, product, reasons for increase/decrease, and trend rates presented in tables and charts.

[13] DIFS Health Coverage Rates and Rate Reviews: http://www.michigan.gov/difs/0,5269,7-303-12902_35510-113481--,00.html
[14] Source: Agency for Healthcare Research and Quality, Center for Financing, Access and Cost Trends. 2013, 2014, 2015 Medical Expenditure Panel Survey-Insurance Component.
[15] Self-Insured Health Plans: Recent Trends by Firm Size, 1996–2015 By Paul Fronstin, Ph.D., Employee Benefit Research Institute "examines recent trends in self-insured health plans among private-sector establishments and workers based on data from the Medical Expenditure Panel Survey Insurance Component (MEPS-IC). Data are presented in the aggregate and by establishment size." 2016, Employee Benefit Research Institute–Education and Research Fund.
[16] These may include but are not limited to written (free form text) description of methodology for determination of premium rates, medical rates forms, network data, rates tables with free text annotations, actuarial memorandum, unified rate review template (URRT), justifications and attestations, summary of benefits and coverage and associated rates, evidence of accreditation, SERFF tracking numbers of any document that is amended from its original version, filing notes, correspondence, disposition.

Table 4: Selected Characteristics of DIFS Rate Filings Analyzed by Year [17]

	2015	2014	2013
Percent premium rate change requested (Average Weighted)	5.22	5.77	7.55
Health plan filings for premium rate changes	59	44	54
Number of filings requesting a decrease in premium rates	7	8	4
Number (Percent) of filings, by market	N (%)	N (%)	N (%)
Individual	19 (32)	7 (16)	10 (19)
Small Group	19 (32)	18 (41)	2 (4)
Large Group	21 (36)	19 (43)	42 (78)
Number (Percent) of filings, by product	N (%)	N (%)	N (%)
HMO	31 (53)	22 (50)	36 (67)
PPO	14 (24)	12 (27)	7 (13)
MM	11 (19)	8 (18)	10 (19)
POS	3 (5)	2 (5)	1 (2)
Percent rate change requested, by product	Ave %	Ave %	Ave %
HMO	3.4	2.4	6.2
PPO	6.5	7.8	8.7
MM	8.6	12.0	11.7
POS	5.7	5.8	6.7
Reasons for premium rate change, by percent of filings	%	%	%
Medical costs	93	68	85
Use of services	88	64	52
Benefit changes	58	48	44
ACA non-benefit changes (Taxes, risk pools, provider networks)	58	55	37
Morbidity of enrollees	49	64	52
Medical Costs Trend Rate (Ave %) reported in Actuarial Memoranda, etc.	6.73%	8.70%	7.33 %

[17] Additional data tables and charts appear in Appendix E.

Summary Findings

- The filings do not indicate that the Healthy Michigan Plan affected the number, plan type, or market of premium rate change requests.

- Filings do not reveal an effect of changes in uncompensated care on premium rate changes.

- The number of rate filings submitted for premium rate change requests increased slightly in 2015. This likely reflects the transitions in plan design, addition of essential benefits, and ACA policies and formula for reinsurance and risk adjustment.

- The percent premium rate change requested (average weighted) per filing decreased each year of the study, to its lowest rate in 2015, 5.22%.
    - Percent premium rate change requested ("Average Weighted"): 2013: 7.55%; 2014: 5.77%; 2015: 5.22%

- There were fewer and a smaller proportions of filings with very high (above 10%) rate change requests in 2015 and 2014 than in 2013; there were more single outlier negative and positive rate requests in 2015.

- The individual market showed the most variation in premium rates requested. The outlier rates appear more often in the individual market, and in the HMO product, in every year.

- The smallest rate changes requested in each year were in HMO product filings; largest rate change requested were in filings for the Major Medical products in each year.

- In all product categories, the average rate change requested was lowest in 2015, compared with 2013 and 2014.

- Filings noted the following reasons for requesting a premium rate increase:
    - Medical costs: Changes in prices and costs of medical services were noted in 85% of filings in 2013; 68% of filings in 2014; and in 93% of filings in 2015.
    - Utilization of Services: Increases in use of medical and health services, and in intensity of services: 2013: 52%; 2014: 64%; 2015: 88%.
    - Benefits: Changes in benefit design, plan features, out of pocket costs, and provider networks: 2013: 44%; 2014: 48%; 2015: 58%.
    - ACA: Changes in required coverage, medical loss ratios, single risk pools, taxes, fees: 2013: 37%; 2014: 55%; 2015: 58%.
    - Morbidity: Changes in the extent and types of disease or illness within the intended pool of covered individuals: 2013: 52%; 2014: 64%; 2015: 49%.

- Increases in medical prices and costs was the most common reason for requesting a rate change by large group, small group, and individual plans; and for HMO, PPO, and Major Medical (MM) plans in each of the three years. There were too few Point of Service (POS) plans to note trends.

- Changes in plan benefits was noted as the reason for changes in rates by large group plans in 2013 and 2014; and in individual markets in 2015.

- An increasing proportion of all filings each year noted utilization of services as a reason for the rate change.

- Medical Cost Trend rate was at its lowest of the three years in 2015, at 6.73% (2013: 7.33%; 2014: 8.70%)

- The Medical Cost Trend rates tended to be higher in large and small groups filings, rather than in the individual market filings. The distribution of Medical Cost Trend rates reported by large groups was wider and more variable.

- HMO plan filings noted increases in premium rates due to increasing pharmacy costs and increasing outpatient visits and professional services. Inpatient hospital use remained stable over the three years.

Conclusion

Interview respondents and rate filings did not identify the Healthy Michigan Plan as a factor affecting changes in premiums in 2013, 2014, or 2015.

Overall Conclusion

Based on hospital cost reports submitted to MDHHS, Michigan hospitals experienced a substantial decline in the costs of uncompensated care in FY 2015 compared to FY 2013. Yet rate filings and interviews with key stakeholders do not offer a connection between reductions in uncompensated care and premium rates.

Appendix A: Literature Review on Cost Shifting

Governmental reports

1. Key issues in analyzing major health insurance proposals. [Internet]. Congress of the United States Congressional Budget Office. 2008 [cited 2014 Nov 21]. p. 112. Available from: http://www.cbo.gov/sites/default/files/12-18-keyissues.pdf

This CBO report notes that cost shifting can only occur under certain conditions. One example is limited competition in which an isolated community is served by a single hospital or in a competitive provider market to offset the costs of uncompensated care or to make up for low public payment rates. Uncompensated care and low payment rates from public programs may result in hospitals reducing their costs by providing care that is less intensive or of lower quality.

2. Forslund TO. Cost shifting and the impact of new hospitals on existing markets. Wyoming Department of Health. 2014.

In its analysis of cost shifting in Wyoming, the Wyoming Department of Health reached two conclusions: First, cost shifting is one of three potential strategies that hospitals can pursue in the face of revenue shortfalls. Two other strategies, including cost cutting and "volume shifting" or lowering private prices to attract more private volume, may also be used. Second, hospitals' ability to cost shift depends on their market power. This analysis of Wyoming data supports the conclusion that hospital market concentration is one of the more significant factors driving prices paid by the private sector. Market power is more strongly associated with changes in private prices than uncompensated or unreimbursed care. However, the report notes that just because a hospital has more market power does not necessarily mean that they engage in cost shifting.

Reviews of the literature and observable trends

1. Frakt AB. How much do hospitals cost shift? A review of the evidence. Millbank Q; 2011; 89(1): 90-130.

In reviewing the evidence on cost shifting, Frakt notes that policymakers should view with skepticism hospital and insurance industry commentary on the existence of inevitable, visible, or large-scale cost shifting. Some cost shifting may be caused by changes in public payment policy, but this is one of many possible effects on private insurance prices. Rather the author cautions that changes in the balance of market power between hospitals and health insurers which result in consolidation can have a significant impact on private insurance rates.

2. Couglin TA, Holahan, J, Caswell, K, McGrath, M. Uncompensated care for the uninsured: A detailed examination. Kaiser Family Foundation. May 30, 2013. Available from: http://kff.org/report-section/uncompensated-care-for-the-uninsured-in-2013-a-detailed-examination-cost-shifting-and-remaining-uncompensated-care-costs-8596/

This Kaiser Family Foundation report notes that there is limited evidence to indicate that increases in uncompensated care have caused hospitals to increase their charges for those with private insurance. The report notes that even as the uninsured rate grew over the past two decades, hospitals' uncompensated care as a share of overall cost has remained steady. Further,

the private payment to cost ratio has steadily increased since 2001, which suggests that the rise in private surpluses is related to other forces, not a result of the cost of care provided to the uninsured. The authors estimate that in 2013, $21.1 billion in providers' uncompensated care costs could be financed by private insurance in the form of higher payments and ultimately higher insurance premiums. Total private health insurance expenditures in 2013 are estimated to be $925.2 billion, so the amount potentially associated with uncompensated care cost shift would be 2.3% of private health insurance costs in 2013. The authors note that even if the $21.1 billion estimate is an underestimate by a wide margin, the potential cost shift from uncompensated care would account for only 4.6% of private health insurance in 2013.

3. Lee J, Berenson R, Mayes R, Gauthier A. Medicare payment policy: Does cost shifting matter? Heal Aff. 2003;W3–480.

The authors examine cost shifting through the lens of Medicare payment policy and state that the extent to which cost shifting impacts private payers and hospitals is a result of their market power and the amount of revenue in the system. Medicare payment policy is based on responsibility to patients as well as supporting the public good. Payment rates are influenced by interest groups and budgetary considerations. The majority of the time Medicare payments cover their responsibilities to Medicare patients and the community. However, if providers' prices rise, and neither public nor private payers' compensation follows suit, consumers pay more. The result is that people lose coverage, which the authors note is the ultimate cost shift.

Theoretical understandings of cost shift

1. Dobson A, DaVanzo J, Sen N. The cost-shift payment "hydraulic": Foundation, history, and implications. Health Aff. 2006;25(1):22-33.

This paper reviews empirical examples of cost shift that show a correlation between lower Medicaid reimbursements and higher private insurance premiums leading to the explanation of cost shift as a potential explanation for increase in private premiums. In reality, the authors note that the potential for cost shift varies greatly over time and across health care markets. Hospitals can absorb some degree of cost shifting pressure through increases in efficiency and decreases in service intensity.

2. Frakt A. The end of cost shifting and the quest for hospital productivity. Health Serv Res. 2014;49(1):1–10.

This article explores the ways hospitals may respond to reductions in Medicare payments. Frakt describes cost shifting as one hypothesis for the ways in which hospitals may attempt to gain revenue in the face of declining Medicare payments. However, hospitals can also raise private prices commensurate with their market power in the absence of a public payment shortfall. Frakt notes that although there are circumstances under which hospitals could and did cost shift at high rates, recent research suggests that it is a far less pervasive phenomenon today.

3. Ginsburg P. Can hospitals and physicians shift the effects of cuts in Medicare reimbursement to private payers? Health Aff [Internet]. 2003;(Web Exclusive):W3–472 to W3–479. Available from: http://content.healthaffairs.org/content/early/2003/10/08/hlthaff.w3.472.full.pdf

This paper attempts to reconcile the different thinking between health care executives and economists regarding cost shifting. The potential for cost shifting varies according to structural factors that in turn vary by time and geography, and while Ginsburg says there is a theoretical basis exists for cost shifting, he shows other models where hospitals have room to adjust before cost shifting occurs.

4. Santerre R. The welfare loss from hospital cost-shifting behavior: A partial equilibrium analysis. Health Econ. 2005;14(6):621–6.

Microeconomic theory suggests that cost shifting can take place under specific conditions, and empirical studies indicate that cost shifting may have occurred in certain instances. This study models potential welfare loss caused by hospital cost shifting under ideal yet possible conditions.

Empirical studies

1. Friesner D, Rosenman R. Cost shifting revisited: The case of service intensity. Health Care Manag Sci. 2002;5(1):15–24.

This research found support for cost shift in some nonprofit hospitals in California while no cost shift was observed in profit-maximizing hospitals. However, both types of hospitals respond to lower service intensity, thus supporting the theoretical conclusion that lower service intensity may be utilized as an alternative to cost shifting.

2. Garthwaite C, Gross T, Notowidigdo MJ. Hospitals as insurers of last resort [Internet]. NBER Working Paper. 2015. Available from: http://www.nber.org/papers/w21290

The authors used previously confidential hospital financial data obtained through a research partnership with the American Hospital Association from 1984 to 2011 to study uncompensated care provided by hospitals and found that the uncompensated care costs for hospitals increase in response to the size of the uninsured population. They found that each additional uninsured person costs local hospitals $900 each year in uncompensated care. Nonprofit hospitals were found to be more exposed to changes in demand for uncompensated care. The closure of a nearby hospital increases the uncompensated care costs of remaining hospitals. Increases in the uninsured population were found to lower hospital profit margins, which suggests that hospitals cannot or do not pass along all increased costs onto patients with private insurance.

3. Showalter M. Physicians' cost shifting behavior: Medicaid versus other patients. Contemp Econ Policy. 1997;15(2):74–84.

This article examines whether physicians practice cost shifting. This study found, in contradiction to cost shift, that lower Medicaid reimbursement rates resulted in physicians charging lower fees to privately insured patients though evidence also suggests that lower Medicaid reimbursements tend to cause physicians to treat fewer Medicaid patients.

4. Wagner KL. Shock, but no shift: Hospitals' responses to changes in patient insurance mix. J Health Econ. 2016;49:46-58.

Wagner analyzes hospital cost-shifting in response to a change in patient insurance mix resulting from recent Medicaid expansions for individuals with disabilities. Wagner found that hospitals actually reduced charges for disabled patients with private insurance. While the ACA Medicaid expansions affect a broader population and the results of this study may not be generalizable, the findings do suggest that cost-shifting is not the only way in which hospitals respond to a revenue reduction.

5. White C. Contrary to cost-shift theory, lower Medicare hospital payment rates for inpatient care lead to lower private premium rates. Health Aff. 2013;32(5):935–43.

Policymakers believe when Medicare constrains its payment rates for hospital inpatient care, private insurers pay higher rates. This demonstrates that slow growth in Medicare inpatient hospital payment rates also results in slow growth in private hospital payment rates. Greater reductions in Medicare payment rates led to a reduction in private payment rates, reflecting hospitals' efforts to rein in operating costs at a time of lower Medicare payments. Hospitals facing cuts in Medicare payment rates may also reduce the payment rates they seek from private payers to attract more privately insured patients.

6. White C, Wu V. How Do Hospitals Cope with Sustained Slow Growth in Medicare Prices? Health Serv Res. 2013;49(1):11-31.

White and Wu analyze the effects of changes in Medicare inpatient hospital prices on hospitals' overall revenues, operating expenses, profits, assets, and staffing. The authors findings suggest that hospitals recoup Medicare cuts not through cost shifting, but instead they adjust their operating expenses over time.

7. Wu V. Hospital cost shifting revisited: new evidence from the Balanced Budget Act of 1997. Int J Healthc Financ Econ. 2010;10(1):61–83.

Wu analyzes hospital cost shifting using a natural experiment generated by the Balanced Budget Act of 1997. This study found that urban hospitals were able to shift part of the burden of Medicare payment reductions onto private payers, but the overall degree of cost shifting was very small, and changes were based on the hospital's share of privately insured patients.

8. Zwanziger J, Bamezai A. Evidence of cost shifting in California hospitals. Health Aff. 2006;25(1):197–203.

This study of California hospitals examines whether decreases in Medicare/Medicaid payments were associated with increases in private insurance payments. A 1% decrease in Medicare price was associated with a 0.17% increase in the price for privately insured patients. This suggests that cost shifting from public to private payers accounted for a small percentage of the total increase in private payer prices from 1997-2001 in California.

Appendix B: Data Elements for Calculating Uncompensated Care and Discharges

Data Elements and Methods for Calculating Uncompensated Care

1. Defining uncompensated care

Uncompensated care is defined as the cost of charity care plus the cost of bad debt.

Charity care is the cost of medical care for which there was no expectation of payment because the patient has been deemed unable to pay for care. Each hospital has its own criteria for identifying patients who are eligible for charity care. For example, hospitals in the Mercy Health system pay 100% of the charges for patients who are uninsured and have family income below 100% of the federal poverty level. The University of Michigan's charity care program pays 55% of total charges for uninsured patients that do not qualify for public insurance programs, have family income below 400% of the federal poverty level, and meet several other criteria. However, not all discounted medical care is charity care. Discounts provided for prompt payment or discounts negotiated between the patient and the provider to standard managed care rates do not represent charity care.

Bad debt is the cost of medical care for which there was an expectation of payment because the patient was deemed to be able to pay for care. For example, bad debt includes the unpaid medical bills of an uninsured patient who applied for charity care but did not meet the hospital's specific criteria. Insured patients who face deductibles and coinsurance payments for hospital care can also generate bad debt.

Hospitals report charity care and bad debt separately on the Michigan Medicaid Forms, though as just noted hospitals vary in the criteria they use to distinguish charity care from bad debt. Even within a particular hospital, rules governing eligibility for charity care are often not strictly applied and may take into account the judgment of individuals determining eligibility.

For purposes of this report, Medicaid and Medicare shortfalls — the difference between reimbursements by these programs and the cost of care— are not included in the estimate of uncompensated care. Similarly, expenditures for community health education, health screening or immunization, transportation services, or loss on health professions education or research are not considered uncompensated care. Although the hospital does not expect to receive reimbursement for these services, they do not represent medical care for an individual. These costs incurred by hospitals fall into the broader category of "community benefit," a concept used by the Internal Revenue Service in assessing hospitals' non-profit status.

2. Measuring uncompensated care using Michigan Medicaid cost report data

The cost of charity care is measured as full charges for uninsured charity care patients minus patient payments toward partial charity discounts, multiplied by the cost-to-charge ratio. The cost of bad debt is measured as unpaid patient charges for which an effort was made to collect payment minus any recovered payments, multiplied by the cost-to-charge ratio. Bad debts

include charges for uninsured patients who did not qualify for a reduction in charges through a charity care program, and unpaid coinsurance, co-pays and deductibles for insured patients.

The cost-to-charge ratio is the ratio of the cost of providing medical care to what is charged for medical care, aggregated to the hospital-level. For example, a cost-to-charge ratio of 0.6 means that on average, 60 cents of every charged dollar covers the cost of care. Variation in cost-to-charge ratios among different payment source categories reflects differences in the mix of services received by patients in those categories. Charity care and bad debt charges for uninsured patients are translated to costs using the cost-to-charge ratio for uninsured patients. Bad debt charges for insured patients are translated to costs using the whole hospital cost-to-charge ratio.

The specific data elements from the Michigan Medicaid Forms (MMF) that are used for these calculations are as follows.

Measures of care for which payment was not received enter positively:

- Uninsured charity care charges (MMF line 6.00)
  Full charge of care provided to patients who have no insurance and qualify for full or partial charity care. Payment is not expected.

- Uninsured patient-pay charges (MMF line 6.10)
  Full charge of care provided to patients who have no insurance and do not qualify for full or partial charity care (self-pay). Payment is expected but hospital has not yet made a reasonable attempt to collect payment.

- Uninsured bad debts (MMF line 6.36)
  Full charge of care provided to patients who have no insurance and do not qualify for charity care. Payment is expected and hospital has made a reasonable attempt to collect payment.

- Third party bad debts (MMF line 6.38)
  Insured patients' unpaid coinsurance, co-pays or deductibles when there is an expectation of payment. This includes gross Medicare bad debts. Payment is expected and the hospital has made a reasonable attempt to collect the amount from the patient

These amounts are offset by payments that were received by patients who qualify for charity care as well as bad debt recoveries. These payments enter the calculation of uncompensated care negatively:

- Uninsured payments from charges (MMF line 6.60)
  Total payments made by uninsured charity care patients and uninsured self-pay patients towards charges.

- Recoveries for uninsured bad debt (MMF line 10.96)

Recovered amounts for uninsured bad debts, which can include amounts that were collected from patients or amounts from community sources (such as an uncompensated care pool).

- Recoveries for third party bad debts and offsets (MMF line 10.98)
  Recovered amounts for insured patients' co-pays, co-insurance and deductibles, including Medicare beneficiaries.

The cost-to-charge ratios used in the calculation are:

- Uninsured inpatient cost-to-charge ratio
  Cost-to-charge ratio calculated by MDHHS for the purposes of determining Disproportionate Share Hospital (DSH) payments. It is used to convert charges for care provided to uninsured patients to costs.

- Whole hospital cost-to-charge ratio
  Cost-to-charge ratio calculated by MDHHS and used to convert charges for care provided to insured patients to costs.

In addition to measuring the dollar amount of uncompensated care costs, we also measure these costs relative to total hospital costs (MMF line 11.30) as a percentage.

Appendix C: Uncompensated Care Data by Hospital

Table 1. Uncompensated Care Expenses by Individual Hospital, FY 2013, FY 2014 and FY 2015

Hospital Name	CMS ID	Qtr of FY end	FY 2013 Total UC	FY 2013 as a % of Cost	FY 2014 Total UC	FY 2014 as a % of Cost	FY 2015 Total UC	FY 2015 as a % of Cost
Allegan General Hospital	1328	4	1.73	4.5%	1.69	4.4%	----	----
Allegiance Health	92	2	35.39	9.8%	29.41	8.0%	15.50	4.2%
Alpena Regional Medical Center	36	2	2.53	2.9%	1.84	2.0%	0.94	1.0%
Aspirus Grand View Hospital	1333	2	1.98	5.1%	2.30	5.9%	0.59	1.6%
Aspirus Keweenaw Hospital	1319	2	1.34	4.5%	1.40	4.2%	0.90	2.5%
Aspirus Ontonagon Hospital	1309	2	0.16	1.7%	0.11	1.1%	0.42	4.0%
Baraga County Memorial Hospital	1307	3	0.99	6.7%	0.78	5.1%	0.47	3.0%
Barbara Ann Karmanos Cancer Hospital	297	3	2.11	1.0%	1.98	1.0%	1.41	0.6%
BCA StoneCrest Center	4038	4	0.13	0.8%	0.11	0.7%	----	----
Beaumont Hospital - Dearborn	20	4	17.82	3.5%	13.14	2.4%	----	----
Beaumont Hospital - Farmington Hills	151	4	16.42	6.9%	7.57	3.1%	----	----
Beaumont Hospital - Taylor	270	4	6.05	5.1%	3.50	2.8%	----	----
Beaumont Hospital - Trenton	176	4	3.44	2.8%	2.33	1.8%	----	----
Beaumont Hospital - Wayne	142	4	7.84	6.6%	5.10	4.1%	----	----
Beaumont Hospital, Grosse Pointe	89	4	9.01	5.4%	5.48	3.3%	----	----
Beaumont Hospital, Royal Oak	130	4	45.87	4.0%	22.50	2.0%	----	----
Beaumont Hospital, Troy	269	4	19.35	3.9%	12.35	2.3%	----	----
Bell Memorial Hospital	1321	2	3.18	8.7%	1.38	4.4%	0.33	1.1%
Borgess Hospital	117	2	27.17	7.6%	20.59	5.8%	12.92	3.6%
Borgess-Lee Memorial Hospital	1315	2	4.00	13.7%	3.70	12.7%	2.18	7.6%
Brighton Hospital	279	2	----	----	----	----	----	----
Bronson Battle Creek Hospital	75	4	15.34	8.5%	11.31	6.6%	----	----
Bronson Lake View Hospital	1332	4	2.76	6.2%	2.43	5.9%	----	----

Bronson Methodist Hospital	17	4	49.41	10.2%	30.27	6.4%	----	----
Caro Community Hospital	1329	4	0.47	4.8%	0.48	4.5%	----	----
Charlevoix Area Hospital	1322	1	0.87	3.1%	0.96	3.2%	0.45	1.4%
Children's Hospital of Michigan	3300	4	3.48	1.1%	3.56	1.1%	----	----
Chippewa War Memorial Hospital	239	4	2.35	3.3%	1.03	1.3%	----	----
Clinton Memorial Hospital	1326	4	0.62	2.6%	0.71	3.1%	----	----
Community Health Center, Branch County	22	4	5.55	9.2%	3.60	5.9%	----	----
Covenant Medical Center, Inc.	70	2	9.72	2.7%	8.08	2.3%	3.35	0.9%
Crittenton Hospital	254	4	5.26	2.6%	3.32	1.8%	----	----
Deckerville Community Hospital	1311	2	0.21	3.5%	0.41	6.0%	0.25	3.9%
Detroit Receiving Hospital	273	4	31.25	14.3%	14.65	6.7%	----	----
Dickinson County Memorial Hospital	55	4	1.57	2.2%	0.91	1.2%	----	----
Doctors' Hospital of Michigan	13	4	3.48	12.9%	1.62	7.0%	----	----
Eaton Rapids Medical Center	1324	2	1.55	9.9%	1.76	9.5%	1.25	7.1%
Edward W. Sparrow Hospital	230	4	21.31	3.1%	17.34	2.5%	----	----
Forest Health Medical Center, Inc.	144	4	0.40	1.2%	0.28	0.8%	----	----
Forest View Psychiatric Hospital	4030	4	0.19	1.4%	0.17	1.2%	----	----
Garden City Hospital	244	4	6.08	5.2%	5.24	4.4%	----	----
Garden City Hospital	244	4	6.08	5.2%	5.24	4.4%	----	----
Genesys Regional Medical Center	197	2	14.78	4.0%	14.46	3.8%	5.59	1.5%
Harbor Beach Community Hospital	1313	4	0.06	0.8%	0.14	1.6%	----	----
Harbor Oaks Hospital	4021	2	0.06	0.5%	0.15	1.3%	0.18	1.4%
Harper University Hospital	104	4	8.63	2.2%	6.90	1.6%	----	----
Havenwyck Hospital	4023	2	0.22	0.9%	0.32	1.1%	0.22	0.7%
Hayes Green Beach Memorial Hospital	1327	1	3.56	7.8%	4.23	9.8%	2.21	4.9%
Healthsource Saginaw	275	4	0.19	0.8%	0.29	1.1%	----	----
Helen Newberry Joy Hospital	1304	4	1.85	7.4%	1.21	4.8%	----	----
Henry Ford Hospital	53	4	96.32	8.5%	83.36	7.6%	----	----
Henry Ford Macomb Hospital	47	4	14.63	4.7%	12.39	4.1%	----	----

Henry Ford West Bloomfield Hospital	302	4	6.24	2.5%	6.91	2.8%	----	----
Henry Ford Wyandotte Hospital	146	4	21.43	9.1%	16.46	7.2%	----	----
Hills & Dales General Hospital	1316	3	0.61	3.2%	0.50	2.5%	0.45	2.2%
Hillsdale Community Health Center	37	2	2.65	5.6%	2.10	4.6%	1.86	4.1%
Holland Community Hospital	72	1	4.82	3.0%	5.50	3.3%	3.38	1.9%
Hurley Medical Center	132	2	27.29	9.4%	16.01	5.4%	10.04	3.2%
Huron Medical Center	118	3	0.80	2.9%	0.75	2.5%	0.40	1.3%
Huron Valley - Sinai Hospital	277	4	8.62	5.7%	3.35	2.0%	----	----
Ionia County Memorial Hospital	1331	4	1.39	5.4%	1.08	4.2%	----	----
Kalkaska Memorial Health Center	1301	2	1.90	8.9%	1.83	8.4%	0.70	3.6%
Kingswood Psychiatric Hospital	4011	4	0.20	1.0%	0.11	0.6%	----	----
Lakeland Community Hospital - Watervliet	78	3	2.04	9.2%	1.56	6.3%	0.38	1.5%
Lakeland Hospital - St. Joseph	21	3	13.91	5.3%	12.10	4.3%	7.20	2.5%
Mackinac Straits Hospital	1306	1	2.20	11.3%	2.03	9.2%	1.73	7.2%
Marlette Regional Hospital	1330	2	0.76	3.4%	0.85	4.0%	0.64	3.1%
Marquette General Hospital	54	2	3.95	2.0%	3.37	1.9%	0.76	0.4%
Mary Free Bed Hospital & Rehab. Center	3026	1	0.86	1.9%	1.48	3.0%	0.67	1.4%
McKenzie Memorial Hospital	1314	3	0.59	4.6%	0.42	3.3%	0.30	2.4%
McLaren - Central Michigan	80	3	2.23	2.9%	2.08	2.7%	1.19	1.6%
McLaren - Greater Lansing	167	3	7.52	2.7%	11.18	4.2%	6.52	2.2%
McLaren Bay Regional	41	3	6.79	2.9%	5.82	2.3%	4.01	1.5%
McLaren Flint	141	3	14.07	3.7%	12.86	3.3%	4.75	1.2%
McLaren Lapeer Region	193	3	5.64	5.6%	5.77	5.8%	3.25	3.2%
McLaren Oakland	207	3	5.87	5.0%	6.49	5.2%	3.65	2.9%
McLaren-Northern Michigan	105	3	5.05	2.9%	3.42	1.9%	1.75	0.9%
Memorial Healthcare	121	4	2.04	2.6%	1.21	1.6%	----	----
Memorial Medical Center of W. Michigan	110	2	2.25	4.1%	1.84	3.3%	1.63	2.8%
Mercy Health Partners - Hackley Campus	66	2	10.88	6.8%	6.80	4.2%	4.02	2.4%
Mercy Health Partners - Lakeshore Campus	1320	2	1.03	6.4%	0.81	4.0%	0.54	3.3%

Mercy Health Partners - Mercy Campus	4	2	8.79	6.2%	7.47	3.4%	4.17	1.8%
Metro Health Hospital	236	2	13.20	6.1%	11.79	4.9%	10.60	3.7%
Mid Michigan Medical Center - Gladwin	1325	2	0.87	4.4%	0.91	4.4%	0.72	3.2%
Mid Michigan Medical Center - Clare	180	2	1.62	5.3%	2.77	8.4%	0.94	2.7%
Mid Michigan Medical Center - Gratiot	30	2	3.06	3.8%	2.74	3.5%	1.59	2.0%
Mid Michigan Medical Center - Midland	222	2	7.50	3.1%	7.27	2.9%	5.32	1.9%
Mount Clemens Regional Medical Center	227	3	19.85	8.1%	18.17	6.9%	8.90	3.3%
Munising Memorial Hospital	1308	1	0.44	5.8%	0.55	7.6%	0.32	4.1%
Munson Healthcare Cadillac Hospital	81	2	2.73	4.5%	2.64	3.7%	1.76	2.6%
Munson Healthcare Grayling Hospital	58	2	2.48	4.2%	1.87	2.6%	1.57	2.6%
Munson Medical Center	97	2	22.54	5.0%	17.25	3.8%	8.12	1.8%
North Ottawa Community Hospital	174	2	2.03	4.7%	1.73	3.8%	1.15	2.2%
Oakland Regional Hospital	301	4	0.10	0.4%	0.11	0.5%	----	----
Oaklawn Hospital	217	1	4.35	5.1%	2.99	3.5%	1.62	1.9%
Otsego County Memorial Hospital	133	4	1.34	2.6%	0.97	1.8%	----	----
Paul Oliver Memorial Hospital	1300	2	1.09	8.2%	0.97	7.2%	0.72	5.2%
Pennock Hospital	40	3	2.23	4.7%	2.57	5.9%	2.07	4.6%
Pine Rest Christian Hospital	4006	2	0.53	1.0%	0.63	1.0%	0.61	0.9%
Port Huron Hospital	216	3	7.58	4.7%	7.10	4.3%	4.45	2.8%
Promedica Bixby Hospital	5	4	1.18	1.7%	1.33	1.9%	----	----
ProMedica Herrick Hospital	1334	4	0.58	1.9%	0.65	2.4%	----	----
ProMedica Monroe Regional Hospital	99	2	9.39	6.5%	9.08	6.9%	6.34	4.6%
Providence Hospital	19	2	0.00	0.0%	20.71	3.6%	14.43	2.4%
Rehabilitation Institute	3027	4	1.51	1.9%	0.93	1.2%	----	----
Saint Mary's Standish Community Hospital	1305	2	0.87	4.5%	0.84	4.6%	0.49	2.6%
Samaritan Behavioral Center	4040	4	0.08	1.0%	0.05	0.6%	----	----
Scheurer Hospital	1310	2	1.54	5.4%	1.38	4.5%	1.35	4.0%
Schoolcraft Memorial Hospital	1303	4	0.33	1.7%	0.28	1.4%	----	----
Sheridan Community Hospital	1312	1	1.02	8.1%	1.01	7.4%	1.28	9.1%

Sinai-Grace Hospital	24	4	27.02	8.7%	11.42	3.8%	----	----
South Haven Community Hospital	85	2	1.42	4.6%	0.95	2.9%	0.39	1.2%
Southeast Michigan Surgical Hospital	264	4	0.04	0.3%	0.11	0.9%	----	----
Southwest Regional Rehabilitation Hospital	3025	2	0.45	3.9%	0.32	3.3%	----	----
Sparrow Carson Hospital	208	4	1.37	3.2%	1.77	4.3%	----	----
Spectrum Health	38	2	32.61	2.9%	40.51	3.4%	20.39	1.6%
Spectrum Health - Reed City Campus	1323	2	2.87	6.8%	3.14	6.8%	1.72	3.6%
Spectrum Health Big Rapids	93	2	2.61	5.8%	2.06	4.3%	1.99	3.8%
Spectrum Health Gerber Memorial	106	2	2.92	5.0%	3.37	5.6%	2.51	4.1%
Spectrum Health United Memorial - Kelsey	1317	2	0.87	7.0%	1.22	9.4%	0.91	7.0%
Spectrum Health United Memorial - United	35	2	2.55	4.4%	0.00	0.0%	2.26	3.3%
Spectrum Health Zeeland Community	3	2	1.56	3.9%	2.35	5.3%	1.72	3.4%
St Joseph Mercy Chelsea	259	2	2.55	2.8%	2.72	2.9%	0.99	1.0%
St. Francis Hospital & Medical Group	1337	3	4.16	7.3%	3.24	6.0%	1.87	3.2%
St. John Hospital and Medical Center	165	2	35.80	5.5%	34.65	5.3%	19.52	2.9%
St. John Macomb-Oakland, Macomb	195	2	21.95	6.2%	20.03	5.9%	11.44	3.3%
St. John River District Hospital	241	2	1.17	2.7%	1.11	2.4%	0.63	1.5%
St. Joseph Mercy Hospital - Ann Arbor	156	2	29.89	4.5%	26.09	4.3%	11.34	1.9%
St. Joseph Mercy Livingston Hospital	69	2	8.23	8.9%	7.23	8.0%	2.51	3.4%
St. Joseph Mercy Oakland	29	2	13.68	4.8%	18.41	6.7%	5.27	1.8%
St. Joseph Mercy Port Huron	31	2	4.87	7.3%	3.66	5.8%	1.26	2.0%
St. Mary Mercy Hospital	2	2	10.55	5.3%	14.36	7.1%	6.04	2.9%
St. Mary's Health Care (Grand Rapids)	59	2	15.48	4.7%	12.72	3.6%	7.78	1.8%
St. Mary's of Michigan Medical Center	77	2	17.86	8.0%	13.69	6.5%	5.33	2.6%
Straith Memorial Hospital	71	4	0.03	0.3%	0.03	0.3%	----	----
Sturgis Memorial Hospital	96	3	2.29	7.0%	1.86	5.5%	1.33	3.9%
Tawas St. Joseph Hospital	100	2	2.17	5.3%	1.41	3.6%	1.21	3.0%
The Behavioral Center of Michigan	4042	4	0.08	0.9%	0.09	1.0%	----	----
Three Rivers Health	15	4	2.54	6.6%	1.68	4.4%	----	----

University of Michigan Health System	46	2	51.02	2.4%	54.64	2.4%	37.08	1.5%
UP Health System - Portage	108	4	1.09	1.9%	0.54	1.1%	----	----
West Branch Regional Medical Center	95	1	2.17	5.8%	2.02	5.3%	1.75	4.5%

Notes: Because hospitals submit their data with a lag, for hospitals with fiscal years ending in the fourth quarter the most recent data available are from hospital FY 2014.

Appendix D: Key Stakeholder Interviews: Respondent Characteristics

Healthcare Providers		*N=9*
Size	Small/Private Practice	2
	Medium/Hospital	1
	Large/Regional Hospital System	6
Payer Mix	Primarily Private	6
	Primarily Public	1
	Mixed	1
	Other	1
Employers		*N=17*
Size	Small Employer 50 or fewer Employees	9
	Medium Employer 51-499	4
	Large Employer 500+	4
Payer Mix	Self-Funded	4
	Mixed	2
	Fully Insured	9
	N/A	2
Economic Sector	Professional, Scientific and Technical Services	3
	Retail Trade	3
	Healthcare	1
	Accommodation and Food Service	3
	Construction	2
	Finance and Insurance	1
	Manufacturing	2
	Other Services	2
Health Insurers		*N=6*
Market	Public	2
	Private	4
Covered members	< 250,000	1
	500,000 -1 million	2
	>1 million	3

Appendix E: DIFS Filings Sampling Exclusions, Inclusions and Rationale

Filings Sampling Exclusions

- Filings without a requested premium rate change. We are interested in the causes of rate change; thus we are excluding from our sample filings that did not submit a rate increase or decrease.
- New products. New products are filings that are submitted to go on the market in the coming year. These filings do not have any prior experience or claims data to compare or predict change in premium rates.
- 2016 filing data. 2016 filing data are incomplete; not all of the filings have been submitted which will apply to 2017 premium rates.

Filings Sampling Inclusions

Insurance filings provide a multitude of data. The following elements were abstracted from each 2015 filing for which a change (negative or positive) in rates was requested.

- Descriptive Data:
  - Filing Number
  - Date
  - Company Name

- Market
  - Health Insurance Market (Individual, Small Group, Large Group, Other)
  - Product Type

- Reason(s) for Rate Change
  - Reason for Rate Change (direct quotes from filings if available)
  - Medical Costs (trend in cost of medical care, physician contracts, etc.)
  - Morbidity (change in morbidity level of risk pool)
  - Benefits (change in benefits offered)
  - ACA (i.e., taxes and fees, legislative compliance, essential health benefits)
  - Utilization of Services (increasing or decreasing)
  - Demographics (age, community rating)
  - Other (i.e., tobacco Status)

Experience [Experience period is a time period used to calculate the premium in order to evaluate risk and return] and Claims

- Affected Policy Holders
- Covered Lives Benefit Change
- Benefit Change
- % Change Approved – weighted average
- Percent Rate Change Requested – weighted average
- Requested Rate: Annual – weighted average

Total Annual Premium Rate

- Premium Rate Change
- Prior Rate: Annual – weighted average
- Projected Earned Premium
- Projected Incurred Claims (Annual Dollars)

Medical Costs
- Trend Factors %
- Medical Trend %
- MLR %
- Pharmacy Trend %

Administrative
- Administrative Fees (Dollars PMPM)
- Administrative Fees % of Premium
- Profit and Risk % of Premium
- Taxes and Fees
    - Taxes and Fees % of Premium
- Uniform Rate Review Template
    - Administrative Expenses % (projected experience)
    - Profit and Risk % (projected experience)
    - Taxes and Fees % (PMPM component of premium increase)
    - Taxes and Fees as a percentage % (projected experience)
    - Single Risk Pool Gross Premium Avg Rate (PMPM)
    - Inpatient (Component of Premium Increase Dollars PMPM)
    - Outpatient (Component of Premium Increase Dollars PMPM)
    - Professional (Component of Premium Increase Dollars PMPM)
    - Prescription (Component of Premium Increase Dollars PMPM)
    - Other (Component of Premium Increase Dollars PMPM)

Rationale for DIFS Filings Inclusions (Drivers of Premium Rates)

Health insurers include several factors in the creation of the premium rate. The state requires that filings include the actuarial methods and data used. Often, this section of the filings is noted as "Confidential/Proprietary/Trade Secret." Many insurers contract with actuarial firms; these firms often use proprietary methods for estimating risk, based on data specific to a number of plan and population features, including the plan type, size, benefits, region, and estimated numbers and types of claims.

Proposed Rate Increases: When included, the filing sections enumerate the contributions of the following (as titled on the forms) to the rate:

- **Medical Loss Ratio (MLR)**: The claims experience on Michigan policies in a specific block of business must be adequate to achieve an 80% Federal Medical Loss Ratio.

- **Allowed and Incurred Claims Incurred during the Experience Period**: Allowed Claims data are available to the company directly from company claims records, with some estimation due to timing issues.

- **Claim Liabilities for Medical Business** are often calculated using proprietary methods.

- **Benefit Categories:** Claims are assigned to each of the varying benefit category by place services were administered, and types of medical services rendered.

- **Projection Factors**
    - **Single Risk Pools**, for policy years beginning after 1/1/14.
    - **Changes in Morbidity of the Population Insured**: The assumptions used are from the experience period to the projection period.
    - **Trend Factors (cost/utilization):** The assumption for cost and utilization is often developed from nationwide claim trend studies, using experience from similar products that were marketed earlier.
    - **Changes in Benefits, Demographics, and other factors: Non-Benefit Expenses and Risk Margin Profit & Risk Margin:** Projected premiums include a percent of premium for risk, contingency, and profit margin. Assumptions are often derived from analysis of pre-tax underwriting gain, less income taxes payable on the underwriting gain, and on the insurer fee, which is not deductible for income tax purposes.

- **Taxes and Fees** include premium tax, insurer fees, risk adjustment fees, exchange fees, and federal income tax.
    - **Premium Tax**: The premium tax rate is 1.25% on Michigan gross direct premiums written in the state of Michigan.
    - **Insurer Fees**: This is a permanent fee that applies to fully insured coverage. This fee will fund tax credits for insurance coverage purchased on the exchanges. The total fee increases from $8B in 2014 to $14.3B in 2018 (indexed to premium for subsequent years). Each insurer's assessment will be based on earned health insurance premiums in the prior year, with certain exclusions.
    - **Risk Adjustment Fees**: The HHS Notice of Benefit and Payment Parameters includes a section on risk adjustment user fees and specifies a $0.08 per member per month user fee for the benefit year 2014. For benefit year 2015, HHS imposes a per-enrollee-per-month risk adjustment fee of $0.10, and for 2016 benefit year, $0.15. (See Federal Register / Vol. 80, No. 39 / Friday, February 27, 2015 / Rules and Regulations 10759).
    - **Federal Income Tax**: Income tax is calculated as 35% * (Pre-Tax Income + Insurer Fees), since insurer fees are not tax deductible.
    - **Reinsurance Fees**: This is a temporary fee that applies to all commercial groups (both fully insured and self-funded) and individual business from 2014 to 2016 for the purpose of funding the reinsurance pool for high cost claimants in the individual market during this three-year transitional period. The total baseline amounts to be collected to fund this pool are $12B in 2014, $8B in 2015, and $5B in 2016, and

individual states can add to this baseline. Each insurer is assessed on a per capita basis. This fee expires in 2017.

- **Changes in Medical Service Costs:** There are many different health care cost trends that contribute to increases in the overall U.S. health care spending each year. These trend factors affect health insurance premiums, which can mean a premium rate increase to cover costs. Some of the key health care cost trends that have affected this year's rate actions include:
    - **Coverage Mandates** – Estimated impacts of changes in benefit design and administration due to the Patient Protection and Affordable Care Act mandates. Direct impacts include the effects of specific changes made to comply with new Federal and State laws.
    - **Increasing Cost of Medical Services** – Annual increases in reimbursement rates to health care providers, such as hospitals, doctors and pharmaceutical companies. The price of care can be affected by the use of expensive procedures, such as surgery, as opposed to monitoring or certain medications.
    - **Increased Utilization** – Annual increases in the number of office visits and other services. In addition, total health care spending may vary by the intensity of care and/or use of different types of health services.
    - **Higher Costs from Deductible Leveraging** – Health care costs may rise every year, while deductibles and copayments may remain the same.
    - **Impact of New Technology** - Improvements to medical technology and clinical practice may require use of more expensive services, leading to increased health care spending and utilization.
    - **Underwriting Wear Off** – The variation by policy duration in individual medical insurance claims, where claims are higher at later policy durations as more time has elapsed since initial underwriting.

- **Administrative Costs:** Expected benefit and administrative costs.

Factors that determine premiums vary by type of plan *market* (individual plans, small group plans, and large group plans):

Individual Plans (for those who purchase their coverage directly from an insurer, not job-based coverage):

- Age (the premium rate cannot vary more than 3 to 1 for adults for all plans)
- Benefits and cost-sharing selected
- Number of family members on the plan
- Location of residence in Michigan
- Tobacco use (the premium rate cannot vary by more than 1.5 to 1)

Small Group Plans (for those who have coverage through an employer with 50 or fewer employees):

- Benefits the employer selects
- How much the employer contributes to the cost
- Family size

- Age (the premium rate cannot vary more than 3 to 1 for adults for all plans)
- Tobacco use (the premium rate cannot vary by more than 1.5 to 1)
- Location of employer in Michigan

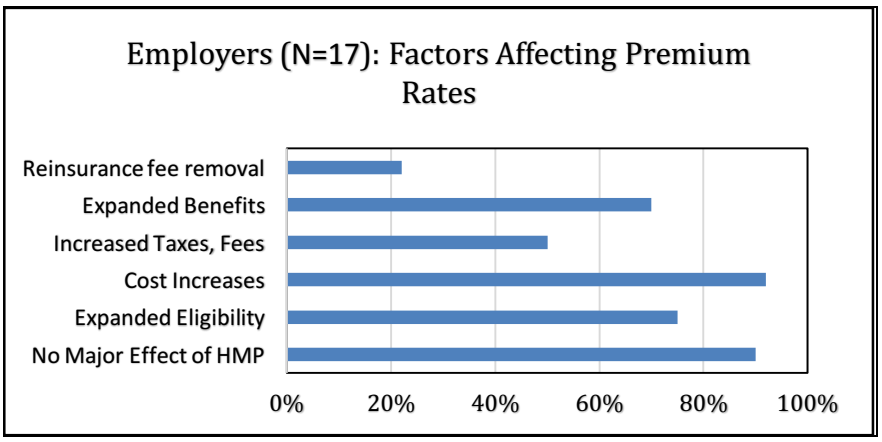
Large Group Plans (for those who have coverage through an employer with more than 50 employees):

- Benefits the employer selects
- Employee census information including age, gender, family status, health status and geographic location
- How much the employer contributes to the cost
- Industry
- Group size
- Wellness programs

Appendix F: Results from Stakeholder Interviews and DIFS Rate Filings Analysis

I. Interview Respondents' Reports on Factors Affecting Premium Rates

Employers:



"…yes, we are paying a lot more fees, we pay a lot of fees and don't get more administrative effort to file reports for all folks …"

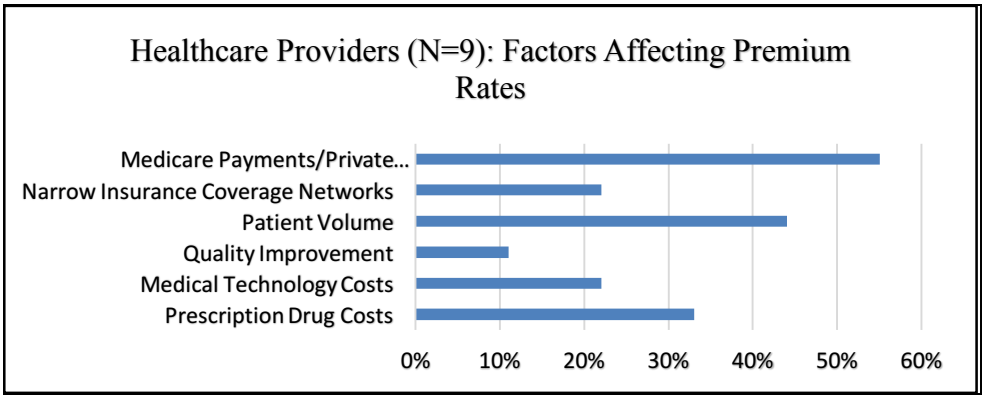
"Decision-making for benefits and ACA has seen the biggest changes…"

"It's [the decision to offer health insurance] almost entirely based on cost; I don't think changes to the Medicaid expansion have influenced it… it's been pretty consistently cost-prohibitive… would like to be able to offer it, but it has just been so expensive that we haven't been able to."

"…Same portfolio as the previous year…Overall, we didn't have to make the drastic adjustments that other employers or insurers did - our rates didn't change much because we already offered pretty extensive coverage."

"…Employees have a larger co-premium pay than before. That increased co-premium has been the biggest change this year. We pay more out of pocket."

Hospitals and Healthcare Providers



"Medicare reimbursement definitely affects the payment rates, depending on if it changes."

"If a major payer comes to us and says 'your case costs are too high- we are excluding you from our network' this has major implications for who we treat, our volumes, and all; if they include us in their narrow network, they have the bargaining power to keep their rates below our costs- this puts us in a financial bind…"

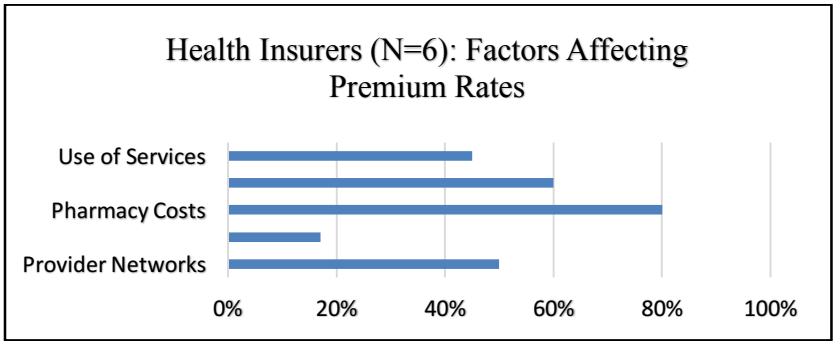
"Volume is critical, and so is the role of consumerism…the dynamics have changed where it is not just the payers making the payments, a key piece is coming from the patient …"

"Patient safety and quality often increase costs in the short run, with reporting and payment tied to quality, but in the long run, quality and quality improvement are why we exist."

"…we've actually thought of changes to charity care to include people who are underinsured because of the [now] significant contributions people have to make…"

"Technology and device costs and the prescription drug costs are the biggest concerns for our payment rates."

Health Insurers



"In the individual market it becomes enrollee membership, a lot of selection issues, lots of healthy enrollees are not enrolling, so we are seeing issues of high use and cost with too many unhealthy persons in the market."

"Then there is also the issue of more of a regulation in terms of the federal reinsurance is going away, so we are losing the protections there for the individual and small group markets."

"As we are reflecting on changes in healthcare costs, pharmacy is becoming a big driver of it…."

"The biggest factors [affecting premium rates] are medical costs and pharmacy cost trends, medical inflation in general. Medical cost has been relatively low over the past year, and pharmacy has really been the biggest contributor."

"Pharmaceutical absolutely, specialty especially… you need the tools and care coordination to handle it … but pharmacy is so out of control, these single patent companies charging whatever they want…."

"I think [Healthy Michigan] has helped hospitals, but they definitely don't say, 'because we've got more money, because our uncompensated care has decreased, we're going to give you a price discount'…and we can't say the same thing in fairness, 'we had a good operating margin, so we'll pay you more,' we don't do it either, in all fairness. It just doesn't work that way, in consideration of all of the other costs and factors affecting costs."

"For the health insurance exchange we had to build our own premium – we based that on our hospital contracts, this is the number one factor, and it's a new market, so that is difficult."

"We are trying to keep premiums down and narrow our provider networks [to keep the costs down]."

II. DIFS Rate Analysis Tables and Charts

The findings from the rate filings analysis are organized into four sections:

A. Number and type of filing
B. Magnitude of the premium rate change requested
C. Reasons for premium rate changes requested
D. Medical cost trend rates noted in filings
All data are presented by year of filing (2013, 2014, and 2015).

A. Number and Type of Filing

Number of filings with rate change increase or decrease by market, by year

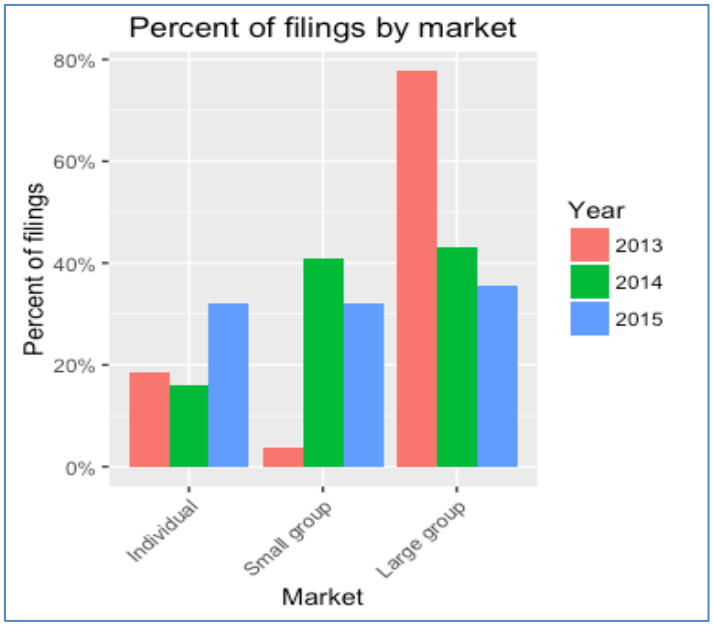
Year	Market	Decrease	Increase
2013	Individual	1	9
	Small group	0	2
	Large group	3	39
2014	Individual	1	6
	Small group	1	17
	Large group	6	13
2015	Individual	3	16
	Small group	4	15
	Large group	0	21

Number of filings with rate change increase or decrease by product, by year

Year	Product	Decrease	Increase
2013	HMO	4	32
	PPO	0	7
	MM	0	10
	POS	0	1
2014	HMO	8	14
	PPO	0	12
	MM	0	8
	POS	0	2
2015	HMO	6	25
	PPO	1	13
	MM	0	11
	POS	0	3

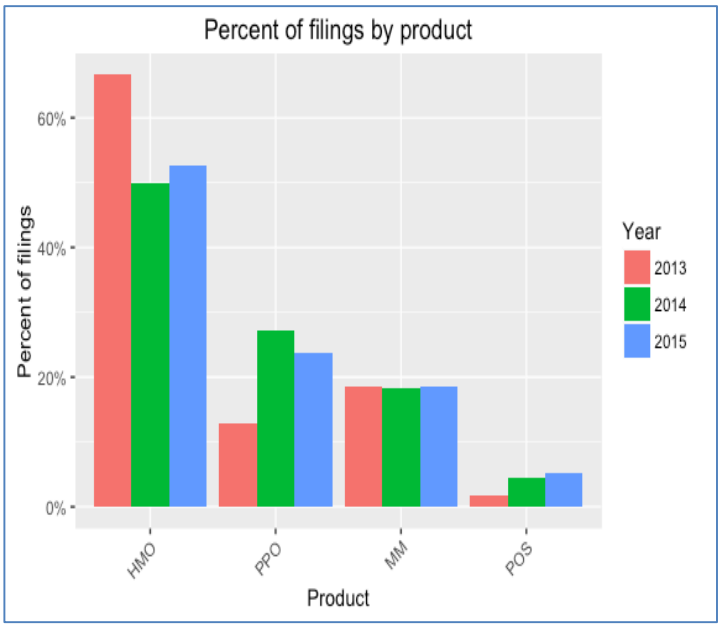
Percent of Filings Requesting Rate Change, by Market, by Year

Year	Individual	Small group	Large group
2013	18.5%	3.7%	77.8%
2014	15.9%	40.9%	43.2%
2015	32.2%	32.2%	35.6%



Percent of Filings Requesting Rate Change, by Product, by Year

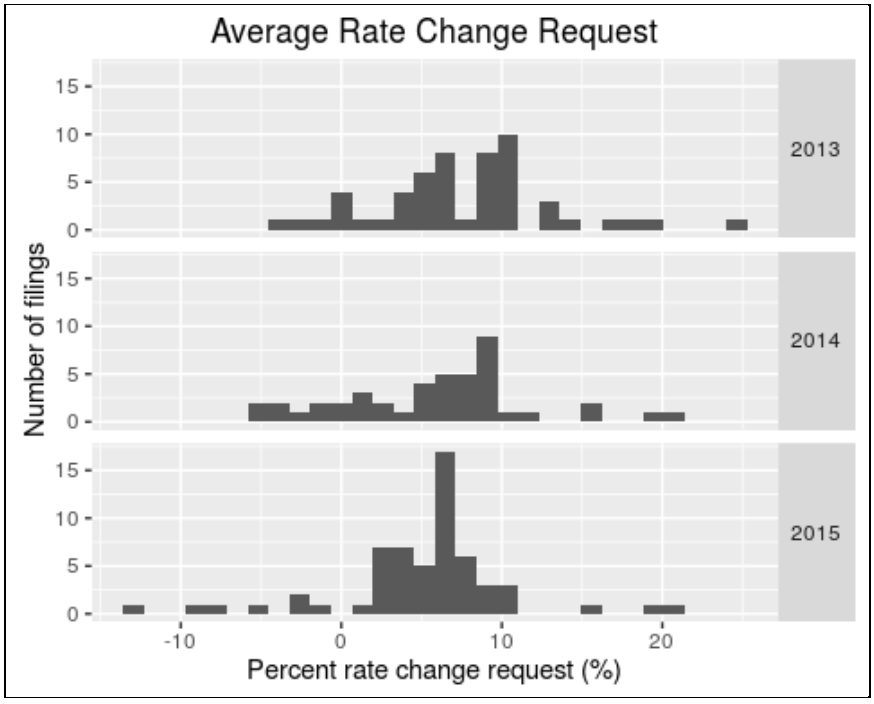
Year	HMO	PPO	MM	POS
2013	66.7%	13.0%	18.5%	1.9%
2014	50.0%	27.3%	18.2%	4.5%
2015	52.5%	23.7%	18.6%	5.1%



B. Magnitude of the Premium Rate Requested

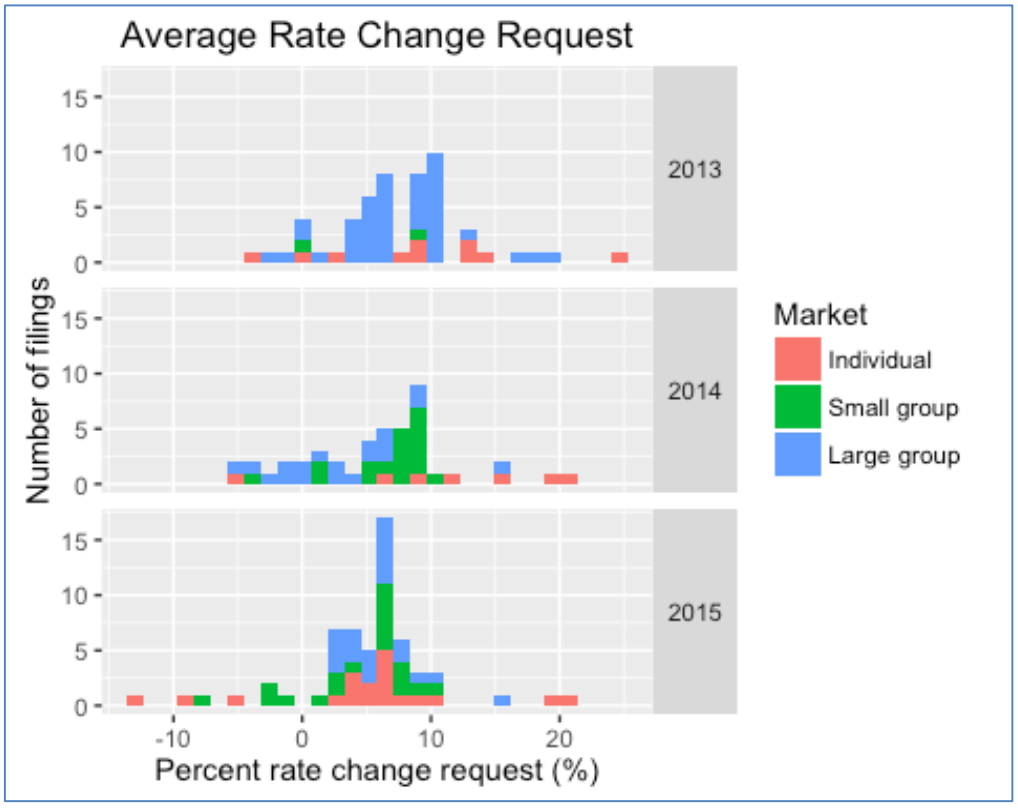
Percent Rate Change Request by Year (%)

Year	Filings	Average (%)	Min (%)	Max (%)
2013	54	7.55	-3.97	25.0
2014	44	5.77	-5.10	21.0
2015	59	5.22	-12.60	20.5



Percent Rate Change Request, by Market, by Year (%)

Year	Market	Filings	Average (%)	Min (%)	Max (%)
2013	Individual	10	8.87	-3.97	25.00
	Small group	2	4.68	0.50	8.86
	Large group	42	7.37	-3.19	19.80
2014	Individual	7	10.90	-4.90	21.00
	Small group	18	6.63	-3.70	9.90
	Large group	19	3.07	-5.10	15.00
2015	Individual	19	5.20	-12.60	20.50
	Small group	19	4.13	-8.30	9.90
	Large group	21	6.21	2.90	15.00



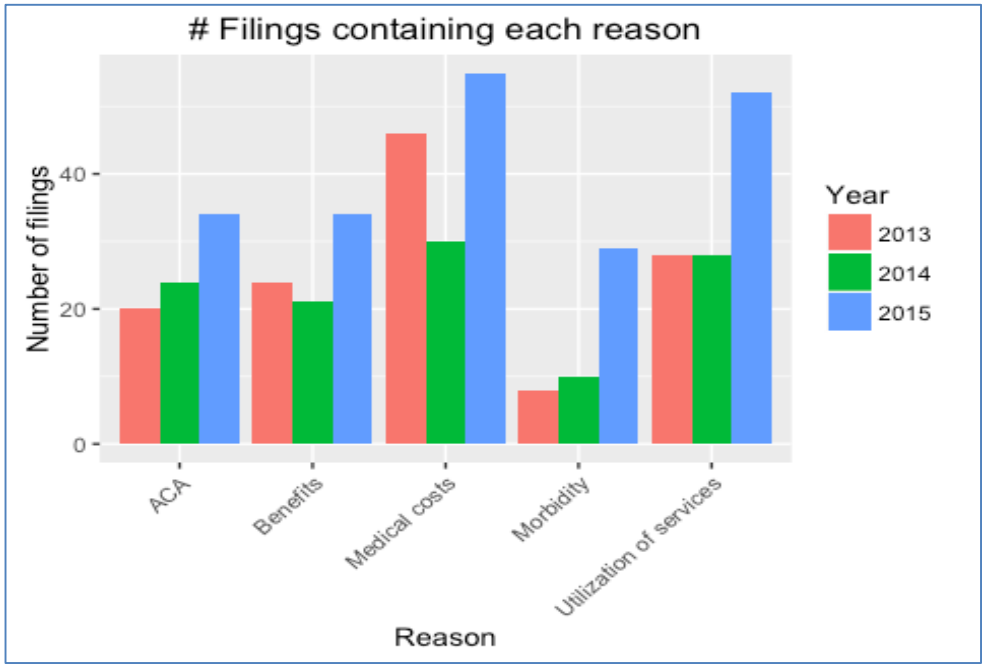
Percent Rate Change Request, by Product, by Year

Year	Product	Filings	Average (%)	Min (%)	Max (%)
2013	HMO	36	6.20	-3.97	18.50
	PPO	7	8.67	0.50	14.60
	MM	10	11.69	5.48	25.00
	POS	1	6.73	6.73	6.73
2014	HMO	22	2.41	-5.10	9.50
	PPO	12	7.76	1.27	19.00
	MM	8	12.00	9.00	21.00
	POS	2	5.84	2.90	8.77
2015	HMO	31	3.40	-12.60	9.90
	PPO	14	6.48	-8.30	20.50
	MM	11	8.58	0.80	20.00
	POS	3	5.70	4.10	6.50

C. Reasons for Premium Rate Changes Requested

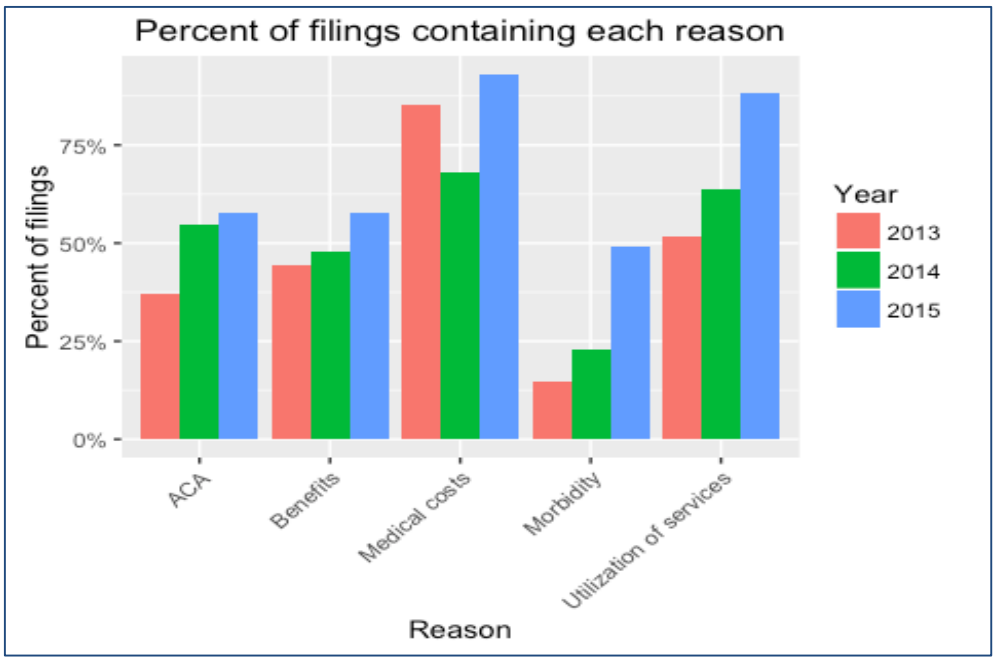
Number of Filings by Reasons for Rate Change Request, by Year

Year	ACA	Benefits	Medical costs	Morbidity	Utilization of services
2013	20	24	46	8	28
2014	24	21	30	10	28
2015	34	34	55	29	52



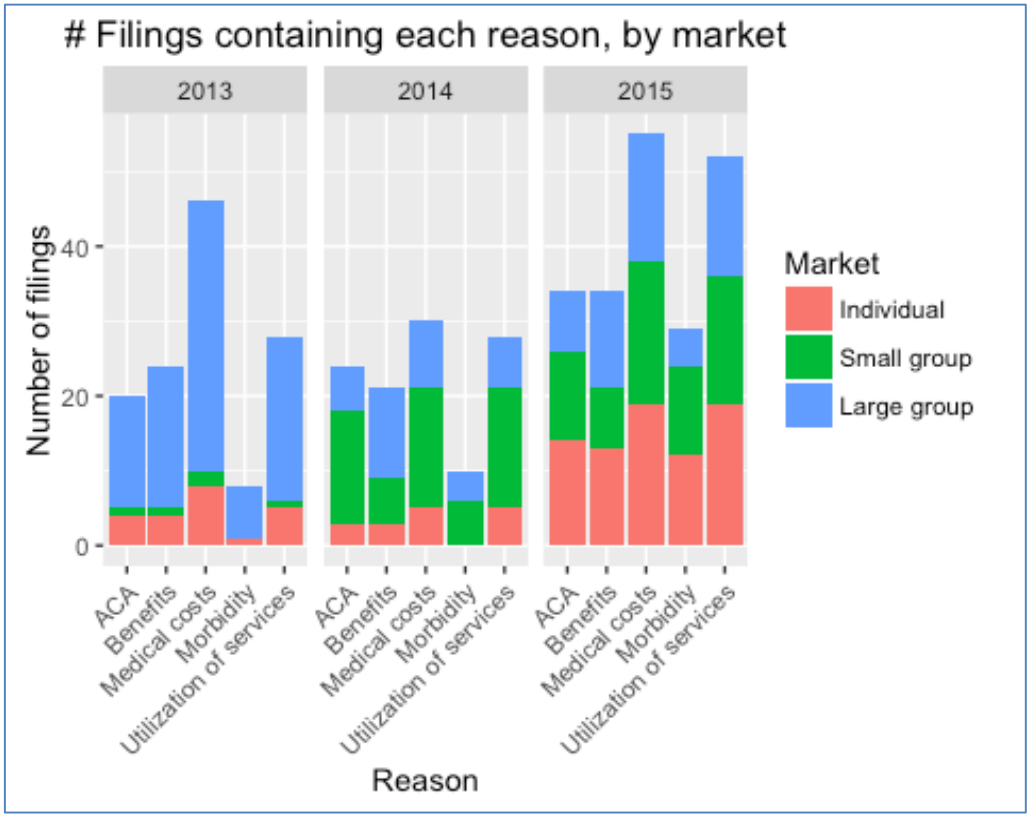
Percent of Filings by Reason for Rate Change Request, by Year

Year	ACA	Benefits	Medical costs	Morbidity	Utilization of services
2013	37.0%	44.4%	85.2%	14.8%	51.9%
2014	54.5%	47.7%	68.2%	22.7%	63.6%
2015	57.6%	57.6%	93.2%	49.2%	88.1%



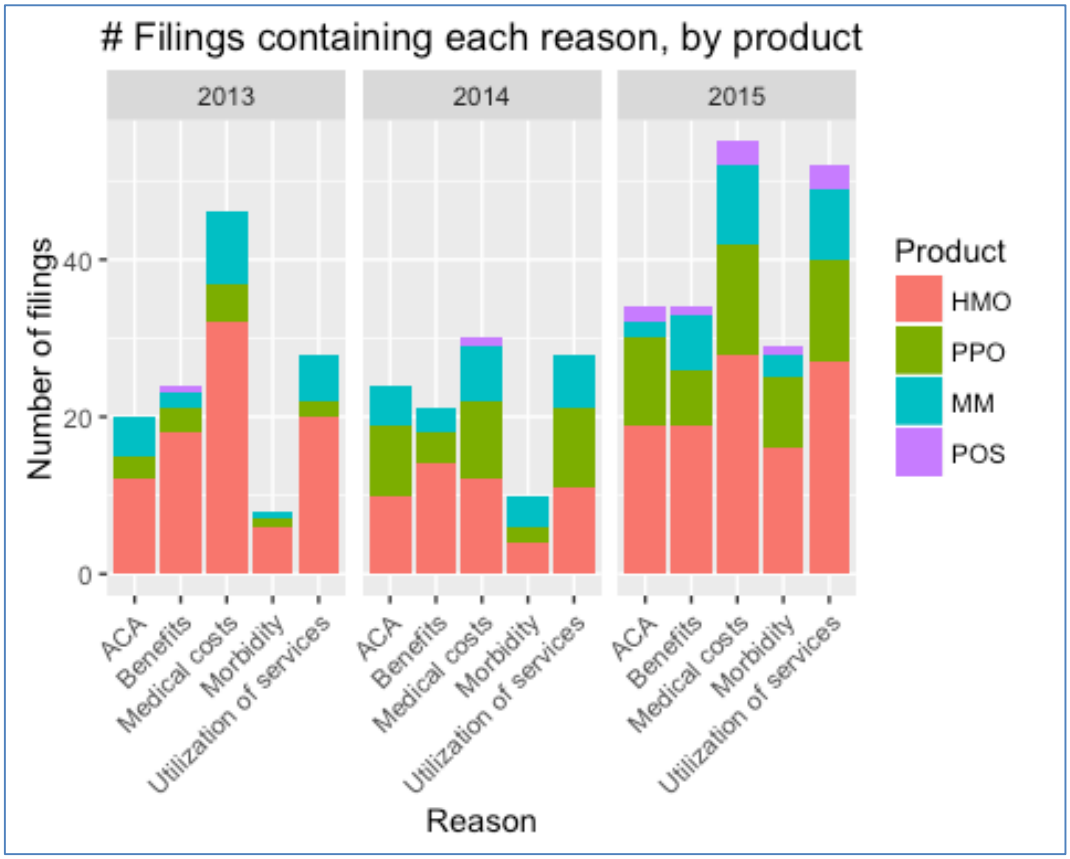
Number of Filings Noting Selected Reasons for Changes in Premium Rates, by Market, by Year

Year	Market	ACA	Benefits	Medical costs	Morbidity	Utilization of services
2013	Individual	4	4	8	1	5
	Small group	1	1	2	0	1
	Large group	15	19	36	7	22
2014	Individual	3	3	5	0	5
	Small group	15	6	16	6	16
	Large group	6	12	9	4	7
2015	Individual	14	13	19	12	19
	Small group	12	8	19	12	17
	Large group	8	13	17	5	16



Number of Filings Noting Selected Reasons for Changes in Premium Rates, by Product, by Year

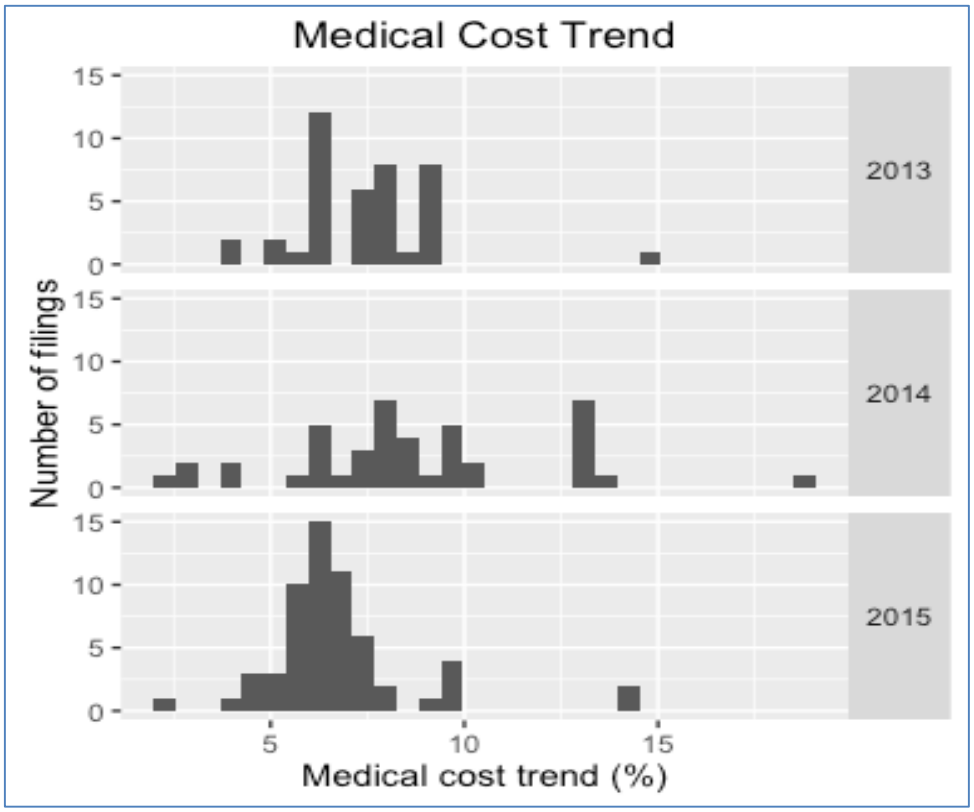
Year	Product	ACA	Benefits	Medical costs	Morbidity	Utilization of services
2013	HMO	12	18	32	6	20
	PPO	3	3	5	1	2
	MM	5	2	9	1	6
	POS	0	1	0	0	0
2014	HMO	10	14	12	4	11
	PPO	9	4	10	2	10
	MM	5	3	7	4	7
	POS	0	0	1	0	0
2015	HMO	19	19	28	16	27
	PPO	11	7	14	9	13
	MM	2	7	10	3	9
	POS	2	1	3	1	3



D. Medical/ RX Cost Trend Rates Noted in Filings (Actuarial memos)

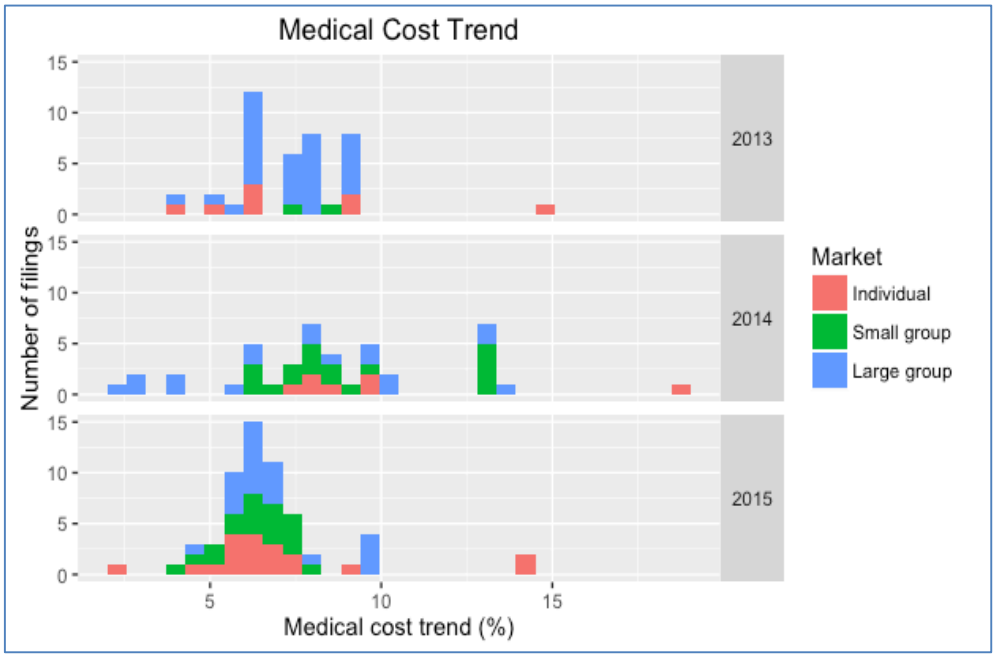
Medical/RX Cost Trend Rate, by Year

Year	Filings	Average (%)	Min (%)	Max (%)
2013	54	7.33	4.0	14.6
2014	44	8.70	2.5	19.0
2015	59	6.73	2.5	14.5



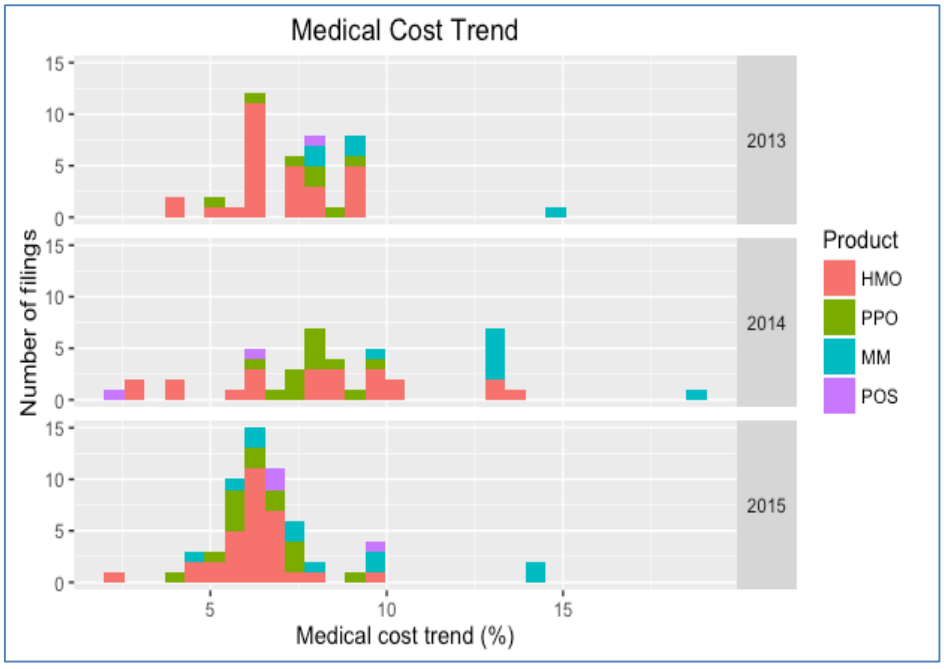
Medical/RX Cost Trend Rate, by Market, by Year

Year	Market	Filings	Average (%)	Min (%)	Max (%)
2013	Individual	10	7.60	4.0	14.60
	Small group	2	7.85	7.2	8.50
	Large group	42	7.22	4.2	8.84
2014	Individual	7	10.06	7.5	19.00
	Small group	18	9.16	6.0	13.00
	Large group	19	7.71	2.5	13.70
2015	Individual	19	6.98	2.5	14.50
	Small group	19	6.29	4.0	7.90
	Large group	21	6.89	4.6	9.60



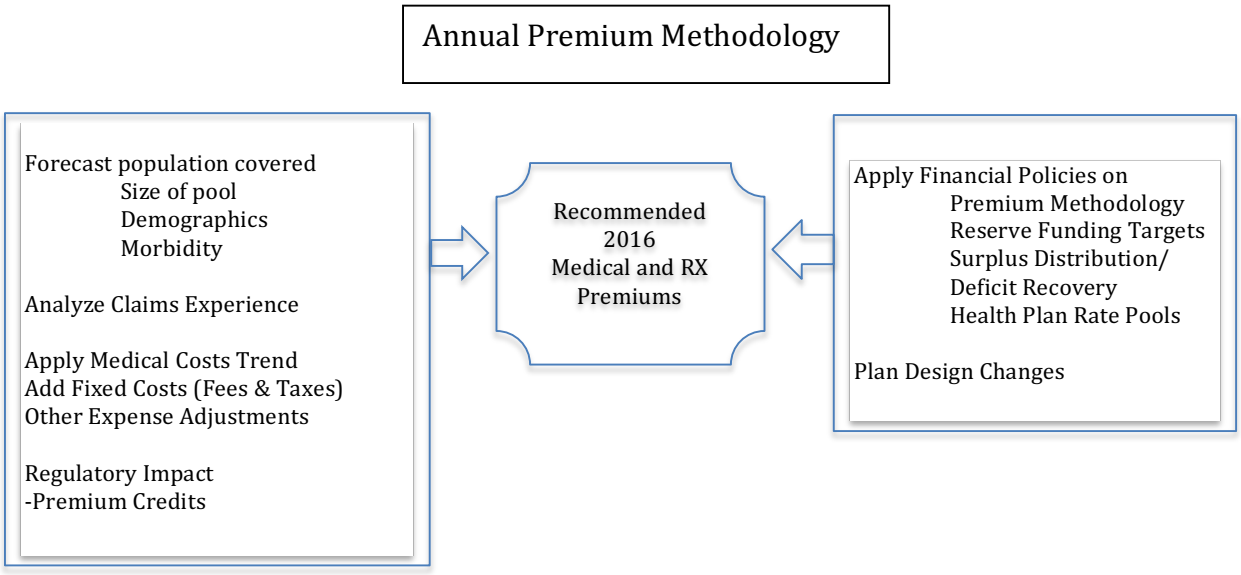
Medical/RX Cost Trend Rate, by Product, by Year

Year	Product	Filings	Average (%)	Min (%)	Max (%)
2013	HMO	36	6.88	4.0	8.9
	PPO	7	7.41	5.2	9.1
	MM	10	9.64	7.9	14.6
	POS	1	7.70	7.7	7.7
2014	HMO	22	8.05	2.9	13.7
	PPO	12	7.91	6.0	9.9
	MM	8	13.37	9.6	19.0
	POS	2	4.25	2.5	6.0
2015	HMO	31	6.16	2.5	9.5
	PPO	14	6.36	4.0	9.0
	MM	11	8.54	4.3	14.5
	POS	3	7.70	6.8	9.5



Appendix G: Overview of Process for Setting Health Insurance Premiums

Actuaries develop premiums based on projected medical claims and administrative costs for a pool of individuals or groups with insurance. Pooling risks allows the costs of the less healthy to be subsidized by the healthy. In general, the larger the risk pool, the more predictable and stable premiums can be. But, the composition of the risk pool is also important. Although the ACA prohibits insurers from charging different premiums to individuals based on their health status, premium levels reflect the health status of an insurer's risk pool as a whole. The majority of premium dollars goes to medical claims, which reflect unit costs (e.g., the price for a given health care service), utilization, the mix and intensity of services, and plan design. Premiums must cover administrative costs, including those related to product development, enrollment, claims processing, and regulatory compliance. They also must cover taxes, assessments and fees, as well as profit (or, for not-for-profit insurers, a contribution to surplus). Laws and regulations can affect the composition of risk pools, projected medical spending, and the amount of taxes, assessments and fees that need to be included in premiums.



Appendix H: Major Drivers of Premium Rate Changes Over Time

FACTORS IN PREMIUM INCREASES	
Risk Pool Composition	
Composition of the risk pool and How it compares to what was projected How it is expected to change	CMS Proposed Standard Age Curve published in the Federal Register on November 26, 2012. This age curve has a 3:1 ratio for age rating. There is also a published factor for children. Insurer expectations regarding the composition of the enrollee risk pool, including the distribution of enrollees by age, gender, and health status.
Single risk pool requirement	The ACA requires that insurers use a single risk pool when developing rates. That is, experience inside and outside the health insurance marketplaces (exchanges) must be combined when determining premiums. Premiums for 2016 will reflect demographics and health status factors of enrollees both inside and outside of the marketplace, as was true for 2014 and 2015.
Transitional policy for non-ACA-compliant plans	For states that adopted the transitional policy that allowed non-ACA compliant plans to be renewed, the risk profile of 2014 ACA-compliant plans might be worse than insurers projected. This would occur if lower-cost individuals retain their prior coverage and higher-cost people move to new coverage. The transitional policy was instituted after 2014 premiums were finalized; meaning insurers were not able to incorporate this policy into their premiums.
Regional, within-Michigan variations	Premiums are set at the state level (with regional variations allowed within a state) and will reflect state- and insurer-specific experience. These factors are reflected in the trend factors reported by insurers.
Reduction of reinsurance program funds	The ACA transitional reinsurance program provides for payments to plans when they have enrollees with especially high claims, thereby offsetting a portion of the costs of higher-cost enrollees in the individual market. This reduces the risk to insurers, allowing them to offer premiums lower than they otherwise would be. Funding for the reinsurance program comes from contributions from all health plans; these contributions are then used to make payments to ACA-compliant plans in the individual market (For more information see: http://kff.org/health-reform/issue-brief/explaining-health-care-reform-risk-adjustment-reinsurance-and-risk-corridors/).

Prices & use of services	
Medical trend: Underlying growth in health care costs	The increase in medical trend reflects the increase in per-unit costs of services and increases in health care utilization and intensity
	Short term National projection: National Health spending growth projected to rise 6.1% 2014-2015 (adjusted for inflation (CPI-U)). Long term projection: 2015-2022 national health spending projected to grow 6.2% annually. Health care reform impact on trend projected to be an average increase of 0.1% annually from 2012 to 2022 (CMS report on National Heath Expenditure Projections 2012-2022).
Employer Plan Taxes & Fees	
Temporary Reinsurance Fees (2014 thru 2016)	Fees from self-insured plans will be used to make reinsurance payments to individual market insurers that cover high-cost individuals in each state. National fee rate of $63 per (non-Medicare) member per year for 2014, $44 PMPY for 2015, and $31.50 PMPY for 2016.
Temporary tax for PCORI fees (2012 thru 2018)	Assessments will fund "patient centered outcomes research trust fund" Fees basis: $1 per covered health plan member per year for CY 2012, $2 per member per year for CY 2013, with PMPY amounts indexed to per capita increases in National Health Expenditures for years 2014-2018.
Employer Shared Responsibility for Health Care, "Pay or Play"	Requires large employers to "offer" medical coverage to employees averaging 30 or more hours of work per week Health care coverage will be offered to temporary employees Medical plans offered must satisfy mandated coverage levels; Employee premium must not exceed 9.5% of the employees pay rate Employers must successfully "offer" coverage to 70% of their qualified population beginning 2015, and 95% by 2016

Health claims assessment tax of 1% of claims and/or premium	State of Michigan Public Act 142 of 2011: Effective Jan 2012, applies to medical, Rx and dental services delivered in Michigan to Michigan residents
Plan Structure & Operations	
Changes in provider networks	Mix of practitioner specialties; "narrowness" of network
Changes in provider reimbursement structures	Per service payment formulae; example: Inpatient stays paid on DRG, Percent of Charges, bundled rates
Benefit package changes	Changes to benefit packages (e.g., through changes in cost-sharing requirements or benefits covered) can affect claim costs and therefore premiums. This can occur even if a plan's actuarial value level remains unchanged.
Risk margin changes	Insurers build risk margins into the premiums to reflect the level of uncertainty regarding the costs of providing coverage. These margins provide a cushion in case costs are greater than projected. Greater levels of uncertainty typically result in higher risk margins and higher premiums.
Changes in administrative costs	Wages, information technology, profit
Increase in the health insurer fee	In 2014, the ACA health insurer fee is scheduled to collect $8 billion from health insurers. The fee will increase to $11.3 billion in 2015 and gradually further to $14.3 billion in 2018, after which it will be indexed to the rate of premium growth. The fee is allocated to insurers based on their prior year's premium revenue as a share of total market premium revenue. In general, insurers pass along the fee to enrollees through an increase to the premium. The effect on premiums will depend on the number of enrollees over which the fee is spread—a greater number of enrollees will translate to the fee being a smaller addition to the premium. The increase in health insurer fee collections from 2014 to 2015 will, in most cases, lead to a small increase in 2015 premiums relative to 2014 (See Exchange and Insurance Market Standards for 2015 and Beyond (Final Rule), Federal Register: 79 (101), May 27, 2014. Available at: http://www.gpo.gov/fdsys/pkg/FR-2014-05-27/pdf/2014-11657.pdf.

Changes in geographic regions	Within a state, health insurance premiums are allowed to vary across geographic regions established by the state according to federal criteria. Changes in the number of geographic regions in the state or how those regions are defined could cause premium changes that would vary across areas. For instance, assuming no other changes, if a lower-cost region and a higher-cost region are combined into one region for premium rating purposes, individuals in the lower-cost area would see premium increases, and individuals in the higher-cost areas would see premium reductions.
Market Competition	
Market forces and product positioning	Insurers might withstand short-term losses in order to achieve long-term goals. Due to the ACA's uniform rating rules and transparency requirements imposed by regulators, premiums are much easier to compare than before the ACA, and some insurers lowered their premiums after they were able to see competitors' premiums.