

**The Healthy Michigan Plan
PA 107 §105(d)(8-9)
2017 Report on Uncompensated Care**

December 21, 2018

Submitted to the Michigan Department of Health and Human Services

Thomas Buchmueller, University of Michigan, Institute for Healthcare Policy & Innovation

Helen Levy, University of Michigan, Institute for Healthcare Policy & Innovation

Jordan Rhodes, University of Michigan, Stephen M. Ross School of Business

105(d)(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.

Executive Summary

This report, pursuant to §105(d)(8-9) of PA 107 of 2013, provides the 2018 annual update to the baseline estimate of uncompensated care borne by Michigan hospitals.

The main source of data 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). Subsequent reports have presented data for the years after HMP implementation. Because of reporting lags and the timing of hospital fiscal years, this report presents data from fiscal year 2016 for all hospitals and from fiscal year 2017 for some hospitals.

The baseline report documented that before HMP was in place the average hospital in Michigan provided \$8.1 million in uncompensated care annually. This amount represented 4.8 percent of total hospital expenditures. By 2016, the amount of uncompensated care provided by Michigan hospitals had fallen to \$3.8 million per year on average, or 2 percent of total expenditures. The most recent data, for fiscal year 2017, come from a representative subset of hospitals. In fiscal year 2017, these hospitals provided an average of \$3.3 million in uncompensated care, or roughly 45 percent of the average amount provided by these hospitals in 2013.

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—now the Department of Health and Human Services (MDHHS)—to publish annual reports on uncompensated care in Michigan. This report fulfills the requirement of §105(d)(8). The main analysis is based on data from Medicaid cost reports submitted to the state annually.

Background: Healthy Michigan Plan Enrollment and Hospital Payer Mix

Table 1 presents information on year-end enrollment in the Healthy Michigan Plan (HMP) and the percentage of inpatients at Michigan hospitals who were uninsured from 2013 to 2017. At the end of 2014, the HMP had 507,618 enrollees. HMP enrollment grew by nearly 20 percent between December 2014 and December 2015. Enrollment continued to grow in 2016 and 2017, though at a lower rate, and stood at 683,447 at the end of 2017. The growth in HMP enrollment coincided with a change in inpatient payer mix. Between 2013 and 2014, the percentage of adult hospital patients without insurance fell roughly in half, from 3.95 percent to 1.95 percent. The percent uninsured fell again in 2015, to just under 1 percent, and remained roughly constant in subsequent years.

Data: Medicaid cost reports

Each year, Michigan hospitals submit cost reports to the state Medicaid program. The cost of uncompensated care provided by each hospital can be calculated based on several data elements contained in these reports.

Uncompensated care is the sum of 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, but ultimately payment was not received. Both types of uncompensated care may arise from patients 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. Appendix A provides more information on the definition of uncompensated care.

Hospitals report financial data on a fiscal year basis. There is variation in the timing of hospital fiscal years, which affects when data are reported to the state. Table 2 summarizes the timing of hospital fiscal years and indicates how this timing affects our ability to measure changes in uncompensated care over time.

For hospitals with fiscal years ending in the first three quarters of the calendar year (i.e., on or before September 30) the data reported to the state in a particular calendar year corresponds to the previous fiscal year. Thus, in 2018, 85 hospitals with fiscal years ending in the first three quarters reported data from fiscal year 2017. There are currently 52 hospitals with fiscal years

ending in the fourth quarter (i.e., after September 30). Since these hospitals report data with a one year lag, the most recent data for these hospitals pertains to fiscal year 2016.

The bottom row of Table 2 presents the number of hospitals providing cost report data to the Department of Health and Human Services each year. There is slight variation in the number of hospitals reporting data in each year, which complicates cross-year comparisons of total dollar amounts measured at the level of the state. Differences in average amounts per hospital are easier to interpret.

Uncompensated care, FY 2013 to FY 2017

Table 3 presents data on hospital uncompensated care over the period 2013 to 2017. The first 4 columns present data for all Michigan hospitals. Because for most hospitals 2014 represents a mix of pre-HMP and post-HMP experience, the best estimate of the initial impact of HMP on hospital uncompensated care comes from a comparison of data from fiscal year 2013 to fiscal year 2015. That comparison indicates that the total cost of uncompensated care provided by Michigan hospitals fell roughly in half, from \$1.1 billion to \$542 million after the program was put in place. Measured at the level of the average hospital in the state, this corresponds to a decline from \$8.1 million (or 4.8 percent of total expenditures) to \$3.9 million (or 2.2 percent of total expenditures). The change between 2015 and 2016 was minimal. In 2016, the average Michigan hospital provided \$3.8 million in uncompensated care. This amount represented 2 percent of total expenditures.

Results for hospitals with fiscal years ending in the first three quarters are presented in the right panel of the table. We report results separately for these hospitals in order to provide information on uncompensated care provided in fiscal year 2017. The mean results for 2013 to 2016 are quite similar to those for the full set of Michigan hospitals, indicating that the quarter in which a hospital's fiscal year ends is not systematically related to the amount of uncompensated care provided. Comparing the data from 2017 and 2016, uncompensated care provided by the average hospital fell by an additional 11 percent (to \$3.3 million from \$3.7 million). The 2017 average represents 45 percent of the average for 2013.

In addition to the average results presented in Table 3, it is important to understand how the changes were distributed among individual hospitals. Appendix Table 1 presents the uncompensated care provided by each hospital in fiscal years 2013, 2016, and 2017. (Previous reports provide the same detailed information for the intervening fiscal years.) The distribution can also be summarized graphically. Figure 1 plots the full distribution of the change between 2013 and 2016 in uncompensated care as a percentage of total expenses. It is clear from the figure that declines in uncompensated care were widespread: 85 percent of hospitals (117 out of 137) experienced a decrease. The median change was -2.0 percentage points, just slightly below the mean decline of 2.8 percentage points shown in Table 3. Thirty-six percent of hospitals experienced a decline of 3 percentage points or more.

Figure 2 plots the change between 2013 and 2016 in uncompensated care as a percentage of total expenditures (on the vertical axis) against the baseline (2013) measure of uncompensated care as

a percentage of expenditures. The scatterplot reveals a strong negative relationship between these two measures, which is not surprising. Hospitals that faced the greatest burden of uncompensated care before HMP was established had the most to gain from the program. The figure also shows that hospitals that experienced an increase in uncompensated care expenditures tend to be hospitals that already faced a low burden. For these hospitals, the increase in uncompensated care is mainly reflective of year-to-year variability.

Conclusion

This is the fifth in a series of annual reports analyzing changes in uncompensated care following the implementation of the Healthy Michigan Plan. It is the second to present data representing a full year of post-HMP experience for all hospitals. This report presents data from fiscal year 2016 for all Michigan hospitals and also for 2017 for a representative subgroup.

Prior reports documented a substantial decline in uncompensated care between 2013 and 2015. The data presented in this report indicate that uncompensated care expenditures stabilized between 2015 and 2016 before falling slightly in 2017. Consistent with results presented in earlier reports, the most recent data indicate that the vast majority of Michigan hospitals are providing less uncompensated care than they were in 2013. The reductions in uncompensated care were most pronounced for hospitals that faced a heavy burden of uncompensated care before the enactment of the HMP.

Table 1. Healthy Michigan Enrollment and Percent of Uninsured Patients by Year

	2013	2014	2015	2016	2017
Year-End HMP Enrollment	0	507,618	606,490	635,374	683,447
Percent of Adult Uninsured Patients	3.95%	1.95%	0.99%	0.96%	0.94%

Notes: Healthy Michigan Plan enrollment is taken from weekly progress reports published by the Michigan Department of Health & Human Services (http://www.michigan.gov/mdhhs/0,5885,7-339-71547_2943_66797---,00.html)

The percent of uninsured patients is calculated using data from the HCUP Fast Stats program (<https://www.hcup-us.ahrq.gov/faststats/landing.jsp>). The Fast Stats program reports quarterly data on the percentage of adult inpatients by the following payer source categories: Medicaid, age 19-64; Uninsured, age 19-64; Private, age 19-64; Medicare, age 65+.

Table 2. The Number of Hospitals Reporting Data to the State by Reporting Year and Fiscal Year End

Reporting Year	2013		2014		2015		2016		2017	
Fiscal Year	2012	2013	2013	2014	2014	2015	2015	2016	2016	2017
<u>Quarter in which FY Ends</u>										
1		8 (0)		9 (0)		9 (12)		8 (12)		8 (12)
2		63 (0)		61 (3)		59 (12)		60 (12)		59 (12)
3		19 (0)		19 (6)		20 (12)		18 (12)		18 (12)
4	49 (0)		51 (0)		51 (9)		51 (12)		52 (12)	
Total Number of Hospitals	139		140		139		137		137	

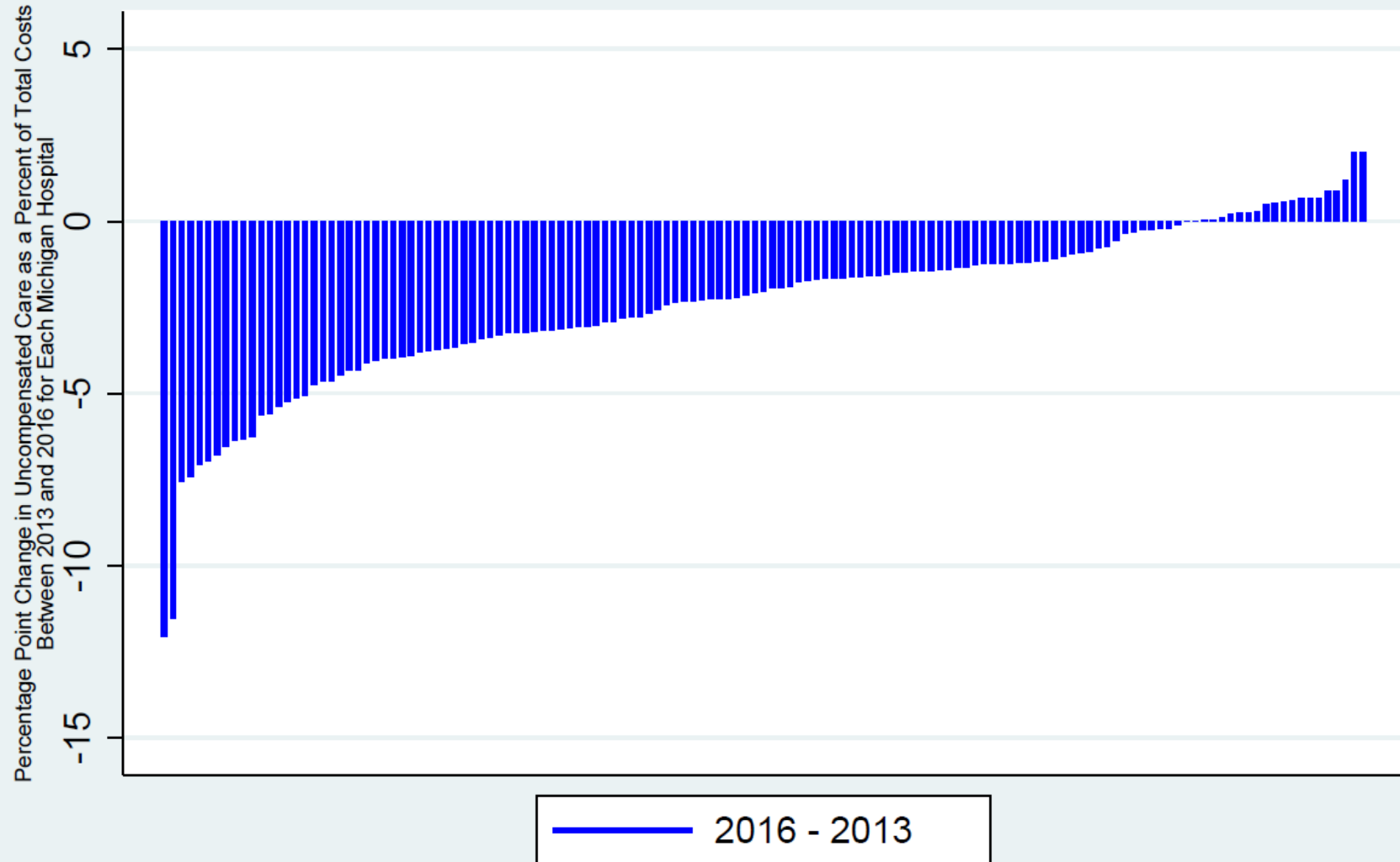
Notes: Average number of months of exposure to Healthy Michigan expansion (4/01/2014) in parentheses. Some hospitals change fiscal year reporting periods during the data years; as a result, there are slight discrepancies in quarterly hospital counts across fiscal years.

Table 3. The Cost of Uncompensated Care Provided by Michigan Hospitals by Fiscal Year, 2013 to 2016

End Year	<u>All Hospitals</u>				<u>Hospitals FY Ends Q1 - Q3</u>				
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Number of Hospitals	141	140	139	138	90	89	88	86	85
Mean months post-HMP	0	5.41	12	12	0	3.35	12	12	12
Uncompensated Care Costs									
Total (\$ millions)	1145.0	926.9	541.7	521.5	663.2	607.7	336.1	320.9	283.9
Mean (\$ millions)	8.1	6.6	3.9	3.8	7.4	6.8	3.8	3.7	3.3
As a % of Total Costs	4.8	3.9	2.2	2.0	4.5	4.1	2.2	2.0	1.7

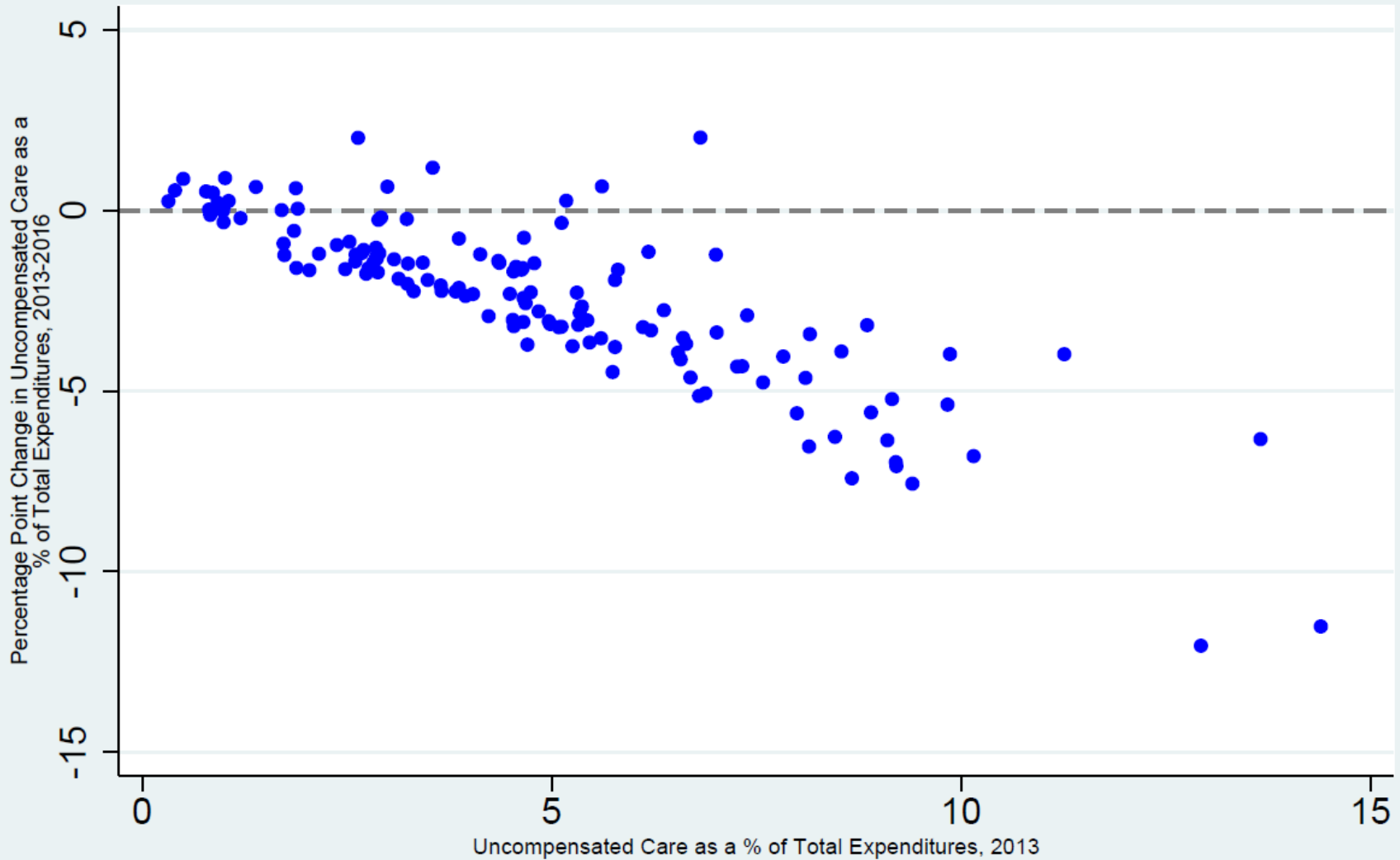
Note: All cost figures have been converted into 2015 dollars.

Figure 1: Change in Uncompensated Care as a Percentage of Total Costs Between 2013 and 2016



Notes: The sample consists of the 137 hospitals that submitted data in both FY 2013 and FY 2016. Each bar represents the percentage point change for an individual hospital.

Figure 2: Changes in Uncompensated Care Across Michigan Hospitals
by Baseline Levels of Uncompensated Care



Notes: The sample consists of the 137 hospitals that submitted data in both FY 2013 and FY 2016.
Each dot represents an individual hospital.

Appendix: 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. 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 hospitals vary in the criteria they use to distinguish one from another. In addition, 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, 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, measured at 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

Table 1. Uncompensated Care Expenses by Individual Hospital, FY 2013, FY 2016 and FY 2017

Hospital Name - CMS ID	Qtr of FY end	FY 2013		FY 2016		FY 2017	
		Total UC	as a % of Cost	Total UC	as a % of Cost	Total UC	as a % of Cost
Allegan General Hospital - 1328	4	1.76	4.57%	1.17	3.01%		
Ascension Crittenton Hospital - 0254	4	5.35	2.64%				
Ascension Crittenton Hospital - 0254**	2			8.88	4.65%		
Ascension Crittenton Hospital - 0254	2					1.51	0.93%
Aspirus Iron River Hospital & Clinics - 1318	4	1.65	4.63%				
Aspirus Iron River Hospital & Clinics - 1318	2			1.16	2.99%	0.75	1.87%
Aspirus Ironwood Hospital – 1333	2	2.03	5.12%	1.99	4.78%	1.55	2.93%
Aspirus Keweenaw Hospital - 1319	2	1.37	4.54%	1.02	2.85%	0.65	1.66%
Aspirus Ontonagon Hospital - 1309	2	0.17	1.73%	0.09	0.81%	0.21	2.03%
BCA StoneCrest Center – 4038	4	0.13	0.83%	0.15	0.71%		
Baraga County Memorial Hospital - 1307	3	1.01	6.70%	0.33	2.07%	0.25	1.49%
Barbara Ann Karmanos Cancer Hospital - 0297	2	2.16	0.99%				
Barbara Ann Karmanos Cancer Hospital - 0297	3			1.38	0.67%	1.19	0.59%
Beaumont Hospital - Dearborn - 0020	4	18.12	3.49%	9.02	1.56%		
Beaumont Hospital - Farmington Hills - 0151	4	16.7	6.88%	5.82	1.82%		
Beaumont Hospital - Taylor - 0270	4	6.15	5.12%	2.36	1.90%		
Beaumont Hospital - Trenton - 0176	4	3.5	2.82%	1.89	1.38%		
Beaumont Hospital - Wayne - 0142	4	7.97	6.64%	4.03	2.95%		
Beaumont Hospital, Grosse Pointe - 0089	4	9.16	5.44%	4.59	2.39%		
Beaumont Hospital, Royal Oak - 0130	4	46.66	4.04%	22.42	1.73%		
Beaumont Hospital, Troy - 0269	4	19.68	3.87%	9.9	1.73%		
Bell Memorial Hospital - 1321	2	3.25	8.67%	0.4	1.25%	0.22	0.69%
Borgess Hospital – 0117	2	27.84	7.58%	10.36	2.82%	9.36	2.35%
Borgess-Lee Memorial Hospital - 1315	2	4.1	13.66%	1.96	7.33%	1.9	6.90%
Bronson Battle Creek Hospital - 0075	4	15.6	8.54%	8.93	4.63%		

Bronson Lake View Hospital - 1332	4	2.81	6.19%	2.04	5.04%		
Bronson Methodist Hospital - 0017	4	50.26	10.16%	17.16	3.35%		
Bronson South Haven Hospital - 0085	2	1.5	4.71%	0.33	0.99%		
Bronson South Haven Hospital - 0085*	4			0.74	1.98%		
Children's Hospital of Michigan - 3300	4	3.54	1.06%	4.1	1.32%		
Chippewa War Memorial Hospital - 0239	4	2.39	3.32%	0.92	1.08%		
Clinton Memorial Hospital – 1326	4	0.71	2.92%	0.68	2.72%		
Covenant Medical Center, Inc. - 0070	2	9.96	2.74%	4	0.98%	4.07	0.99%
Deckerville Community Hospital - 1311	2	0.22	3.55%	0.32	4.73%	0.29	4.39%
Detroit Receiving Hospital - 0273	4	32	14.40%	6.35	2.88%		
Dickinson County Memorial Hospital - 0055	4	1.6	2.16%	0.87	0.96%		
Doctors' Hospital of Michigan - 0013	4	3.54	12.93%	0.13	0.88%		
Eaton Rapids Medical Center - 1324	2	1.59	9.87%	1.13	5.89%	1	4.79%
Edward W. Sparrow Hospital – 0230	4	21.67	3.08%	12.7	1.72%		
Forest Health Medical Center, Inc. - 0144	4	0.41	1.20%	0.45	0.99%		
Forest View Psychiatric Hospital - 4030	4	0.2	1.39%	0.35	2.04%		
Garden City Hospital – 0244	3	6.21	5.18%				
Garden City Hospital – 0244	4			6.41	5.45%		
Genesys Regional Medical Center - 0197	2	15.14	3.95%	6.09	1.58%	7.01	1.88%
Harbor Beach Community Hospital - 1313	4	0.06	0.82%	0.07	0.84%		
Harbor Oaks Hospital – 4021	2	0.06	0.50%	0.2	1.38%	0.15	0.88%
Harper University Hospital - 0104	4	9.85	2.48%	3.63	0.86%		
Havenwyck Hospital – 4023	2	0.22	0.86%	0.42	1.35%	0.29	0.91%
Hayes Green Beach Memorial Hospital - 1327	1	3.66	7.83%	1.62	3.79%	2.09	4.85%
Healthsource Saginaw - 0275	4	0.19	0.78%	0.35	1.31%		
Helen Newberry Joy Hospital - 1304	4	1.88	7.39%	1.13	4.48%		
Henry Ford Allegiance Health - 0092	2	36.27	9.84%	17.99	4.46%	9.25	2.19%
Henry Ford Hospital – 0053	4	97.97	8.46%	28.57	2.19%		
Henry Ford Macomb Hospital - 0047	4	14.88	4.66%	7.7	2.23%		
Henry Ford West Bloomfield Hospital - 0302	4	6.35	2.53%	4.3	1.66%		
Henry Ford Wyandotte Hospital - 0146	4	21.8	9.10%	6.61	2.74%		

Hills & Dales General Hospital - 1316	3	0.62	3.23%	0.64	2.99%	0.66	2.94%
Hillsdale Hospital - 0037	2	2.72	5.62%	2.98	6.28%	2.48	5.47%
Holland Community Hospital - 0072	1	4.96	3.00%	6.46	3.65%	7.04	3.57%
Hurley Medical Center - 0132	2	27.97	9.41%	6.4	1.84%	4.78	1.33%
Huron Valley - Sinai Hospital - 0277	4	8.79	5.75%	1.97	1.27%		
Ionia County Memorial Hospital - 1331	4	1.72	6.61%	1.08	3.08%		
Kalkaska Memorial Health Center - 1301	2	1.94	8.90%	0.86	3.31%	0.62	2.21%
Kingswood Psychiatric Hospital - 4011	4	0.2	0.99%	0.22	0.97%		
Lake Huron Medical Center - 0031	2	4.99	7.33%				
Lake Huron Medical Center - 0031	4			2.13	3.02%		
Lakeland Hospital - St. Joseph - 0021	3	14.2	5.31%	9.02	3.03%	6.51	2.18%
Lakeland Hospital Watervliet - 0078	3	2.09	9.21%	0.6	2.24%	0.63	2.16%
Mackinac Straits Hospital – 1306	1	2.26	11.26%	2.01	7.28%	1.37	4.87%
Marlette Regional Hospital – 1330	2	0.78	3.43%	0.39	1.98%	0.36	1.86%
Marquette General Hospital - 0054*	2	4.04	2.04%				
Marquette General Hospital – 0054	2			0.89	0.39%	0.55	0.26%
Mary Free Bed Hospital & Rehabilitation Center - 3026	1	0.88	1.86%	0.71	1.29%	0.82	1.28%
McKenzie Memorial Hospital - 1314	3	0.61	4.65%	0.4	3.05%	0.39	2.99%
McLaren - Central Michigan - 0080	3	2.28	2.90%	1.38	1.71%	1.16	1.49%
McLaren - Greater Lansing – 0167	3	7.68	2.71%	4.99	1.61%	8.85	2.91%
McLaren Bay Regional – 0041	3	6.94	2.86%	4.65	1.82%	3.67	1.34%
McLaren Caro Region - 1329	4	0.48	4.79%	0.38	3.33%		
McLaren Flint - 0141	3	14.36	3.66%	5.6	1.43%	5.67	1.50%
McLaren Lapeer Region - 0193	3	5.75	5.61%	2.15	2.07%	2.07	2.11%
McLaren Macomb - 0227	3	20.27	8.15%	4.47	1.61%	5.46	1.98%
McLaren Oakland - 0207	3	5.99	4.98%	2.48	1.84%	3.29	2.31%
McLaren Port Huron - 0216	2	7.77	4.75%				
McLaren Port Huron - 0216	3			4.12	2.48%	3.86	2.12%
McLaren Thumb Region - 0118	3	0.82	2.87%	0.48	1.53%	0.38	1.25%
McLaren-Northern Michigan - 0105	3	5.15	2.89%	5.38	2.63%	4.38	2.07%
Memorial Healthcare - 0121	4	2.08	2.60%	1.17	1.19%		

Mercy Health Muskegon - 0066	2	11.15	6.82%	6.68	8.84%	8.57	1.90%
Mercy Health Partners - Lakeshore Campus - 1320	2	1.06	6.37%	0.63	3.61%	0.81	4.26%
Mercy Health Partners - Mercy Campus - 0004	2	9.01	6.19%				
Metro Health Hospital - 0236	2	13.53	6.12%	7.57	2.89%	4.86	1.69%
Mid Michigan Medical Center - Gladwin - 1325	2	0.89	4.35%	0.68	2.95%	0.63	2.71%
MidMichigan Medical Center - Alpena - 0036	2	2.59	2.88%	1.16	1.17%	1.29	1.09%
MidMichigan Medical Center - Clare - 0180	2	1.67	5.33%	0.78	2.16%	0.94	2.37%
MidMichigan Medical Center - Gratiot - 0030	2	3.14	3.83%	1.36	1.58%	1.95	2.21%
MidMichigan Medical Center - Midland - 0222	2	7.69	3.13%	4.04	1.24%	3.98	1.23%
MidMichigan Medical Center - West Branch - 0095	1	2.23	5.78%	1.65	3.85%	0.88	2.13%
Munising Memorial Hospital – 1308	1	0.46	5.78%	0.15	1.99%	0.24	3.47%
Munson Healthcare Cadillac Hospital - 0081	2	2.8	4.54%	0.96	1.34%	0.61	0.82%
Munson Healthcare Charlevoix Hospital - 1322	1	0.93	3.24%				
Munson Healthcare Charlevoix Hospital - 1322**	2			0.43	1.21%		
Munson Healthcare Charlevoix Hospital - 1322	2					0.5	1.27%
Munson Healthcare Grayling Hospital - 0058	2	2.54	4.23%	0.8	1.31%	0.58	0.94%
Munson Healthcare Otsego Memorial Hospital - 0133	4	1.36	2.61%	0.87	1.39%		
Munson Medical Center - 0097	2	23.09	4.97%	9.2	1.90%	7.48	1.47%
North Ottawa Community Hospital - 0174	2	2.09	4.66%	0.82	1.57%	0.88	1.54%
Oakland Regional Hospital - 0301	4	0.11	0.40%	0.22	0.96%		
Oaklawn Hospital - 0217	2	4.46	5.09%				
Oaklawn Hospital - 0217	1			1.6	1.85%	1.5	1.59%
Paul Oliver Memorial Hospital - 1300	2	1.12	8.16%	0.66	4.73%	0.39	2.79%
Pine Rest Christian Hospital - 4006	2	0.55	1.01%	1.19	1.91%	0.87	1.25%
ProMedica Coldwater Regional Hospital - 0022	4	5.64	9.16%	2.11	3.94%		
ProMedica Herrick Hospital – 1334	4	0.59	1.88%	0.54	2.49%		
ProMedica Monroe Regional Hospital – 0099	2	9.63	6.55%				
ProMedica Monroe Regional Hospital – 0099	4			3.33	2.61%		
Promedica Bixby Hospital - 0005	4	1.2	1.70%	1.31	1.71%		
Providence-Providence Park Hospital - 0019	2	21.83	3.65%	10.02	1.57%	11.25	1.80%
Rehabilitation Institute - 3027	4	1.54	1.90%	1.51	1.95%		

Saint Mary's Standish Community Hospital - 1305	2	0.89	4.49%	0.4	2.18%	0.55	3.18%
Samaritan Behavioral Center - 4040	4	0.09	0.99%	0.1	1.09%		
Scheurer Hospital - 1310	2	1.58	5.37%	0.91	2.71%	0.65	1.86%
Schoolcraft Memorial Hospital - 1303	4	0.34	1.74%	0.12	0.50%		
Sheridan Community Hospital - 1312	1	1.05	8.10%	0.48	3.47%	0.46	3.89%
Sinai-Grace Hospital - 0024	4	29.02	9.21%	6.61	2.13%		
Southeast Michigan Surgical Hospital - 0264	4	0.04	0.32%				
Southwest Regional Rehabilitation Hospital - 3025	2	0.46	3.88%				
Sparrow Carson Hospital - 0208	4	1.39	3.25%	0.9	1.78%		
Spectrum Health - 0038	2	33.42	2.86%	21.56	1.58%	25.04	1.79%
Spectrum Health - Reed City Campus - 1323	2	2.94	6.80%	0.85	1.66%	1.1	2.16%
Spectrum Health Big Rapids - 0093	2	2.68	5.81%	2.39	4.17%	1.91	3.44%
Spectrum Health Gerber Memorial - 0106	2	3	5.00%				
Spectrum Health Gerber Memorial - 1338	2			1.98	2.78%	3.13	4.13%
Spectrum Health Ludington Hospital - 0110	3	2.3	4.13%				
Spectrum Health Ludington Hospital - 0110	2			2	2.92%	1.74	2.50%
Spectrum Health Pennock - 0040	3	2.28	4.66%				
Spectrum Health Pennock - 0040*	2			1.97	3.91%		
Spectrum Health Pennock - 0040	2					1.39	2.61%
Spectrum Health United Hospital - 0035	2	2.61	4.36%	2.07	2.91%	2.27	3.11%
Spectrum Health United Memorial - Kelsey Campus - 1317	2	0.89	7.01%	0.77	5.78%	0.86	6.73%
Spectrum Health Zeeland Community Hospital - 0003	2	1.6	3.87%	1.57	3.09%	1.79	3.23%
St Joseph Mercy Chelsea - 0259	2	2.61	2.76%	1.18	1.16%	1.15	1.11%
St. Francis Hospital & Medical Group - 1337	3	4.24	7.27%	1.85	2.94%	1.72	2.68%
St. John Hospital and Medical Center - 0165	2	36.69	5.47%	14.07	1.81%	11.99	1.74%
St. John Macomb-Oakland Hospital-Macomb Center - 0195	2	22.49	6.22%	10.5	2.89%	9.58	2.68%
St. John River District Hospital - 0241	2	1.2	2.68%	0.65	1.51%	0.54	1.27%
St. Joseph Mercy Hospital - Ann Arbor - 0156	2	30.63	4.53%	10.3	1.50%	6.87	1.14%
St. Joseph Mercy Livingston Hospital - 0069	2	8.44	8.86%	4.64	5.68%	2.28	2.59%
St. Joseph Mercy Oakland - 0029	2	14.02	4.84%	6.24	2.05%	4.09	1.31%
St. Mary Mercy Hospital - 0002	2	10.82	5.26%	3.33	1.50%	3.43	1.59%

St. Mary's Health Care (Grand Rapids) - 0059	2	15.86	4.68%	9.37	2.11%	9.56	2.08%
St. Mary's of Michigan Medical Center - 0077	2	18.3	8.00%	5.32	2.38%	4.75	2.23%
Straith Memorial Hospital - 0071	4	0.03	0.32%	0.06	0.57%		
Sturgis Memorial Hospital - 0096	3	2.34	7.02%	1.26	3.64%	0.67	1.87%
Tawas St. Joseph Hospital - 0100	2	2.22	5.35%	1.02	2.51%	0.79	2.00%
The Behavioral Center of Michigan - 4042	4	0.08	0.92%	0.11	1.14%		
Three Rivers Health - 0015*	4	2.58	6.58%				
Three Rivers Health – 0015	4			1.01	2.45%		
UP Health System - Portage - 0108	2	1.08	1.88%				
UP Health System - Portage - 0108*	4	1.11	1.86%				
UP Health System - Portage - 0108	4			0.14	0.29%		
University of Michigan Health System - 0046	2	52.28	2.38%	37.09	1.42%	30.6	1.13%

Note: All cost figures have been annualized and converted into 2015 dollars.

***Contains observations that are either less than, (* < 362), or more than, (** > 365), 365 days.

