

Health Care Homes, Five Year Program Evaluation

KEY FINDINGS FROM UNIVERSITY OF MINNESOTA EVALUATION

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Introduction

Pursuant to Minnesota Statutes, Section 256B.0752, Subd. 2, the Minnesota Department of Health (MDH) and the Minnesota Department of Human Services (DHS) are required to conduct comprehensive evaluations of the Health Care Home (HCH) program three and five years after implementation. The Minnesota Department of Health contracted with the University of Minnesota to serve as the independent evaluator of the program for both reports.

In conducting this evaluation, the University of Minnesota relied on analysis of claims data from the Medicaid and Medicare programs, analysis of data from the Statewide Quality Measurement and Reporting Program (SQRMS), and interviews with certified Health Care Homes, to assess the effect of the HCH program on access, cost, quality, and patient experience during the evaluation period of July 2010 – December 2014. The primary focus of the evaluation was to answer two important questions:

- Did the HCH initiative work to reduce disparities, increase access, decrease costs, and improve patient experience?
- Did the effects of the HCH program vary across sub-populations, such as racial, ethnic, or multi-morbid populations?

This document summarizes key findings from the five year evaluation, including characteristics of organizations and providers participating in the HCH program, quality measurement and patient experience results of HCHs versus non-HCHs, comparisons of HCH to non-HCH clinics on cost and utilization metrics, how HCH clinics implemented the payment methodology for care coordination services, and the impact of HCH on disparities. The evaluation found that:

- Across the nearly five year evaluation period, overall spending on medical services for Medicaid, Medicare and Dual Eligible beneficiaries in HCHs was approximately \$1 billion less than if those patients had been attributed to a non-HCH settings.
- Overall, medical costs for enrollees who could be attributed to a HCH clinic were nine percent less than enrollees at non-HCH clinics. This is primarily due to lower spending for inpatient hospital admissions, hospital outpatient visits, and pharmacy.
- On a broad range of clinical quality measures, HCH clinics outperform non-HCH clinics.
- Patients served by HCHs who were enrolled in the Medicaid, Dual and Medicare populations had dramatically lower rates of hospitalization and shorter lengths of stay than patients in these programs who were not served by HCHs.

The full five-year evaluation report is available here:

<http://www.health.state.mn.us/healthreform/homes/legreport/docs/hch2016report.pdf>

Demographics:

A total of 358 unique clinics were included in the HCH certification database at the end of 2014. Of these, 338 were located in Minnesota. The characteristics of organizations and providers participating in Health Care Homes during the evaluation period include the following:

- Nearly half of the certified Family Medicine and Pediatrics providers in the state provided care within HCHs.
- Nearly half of certified HCH organizations were Integrated Medical Groups and approximately 30% were Independent Medical Groups. The vast majority of certified HCH clinics are part of an Integrated Medical Group.
- Just over 53% of HCHs are in the Twin Cities Metropolitan area, mirroring the distribution of Minnesota's population. However, certified HCHs were present in all regions of the state, and two thirds of all counties in the state.

Clinics were more likely to be certified if:

- They had a high proportion of their patients enrolled in Minnesota Health Care Programs.
- They had a high proportion of African-American patients or patients in higher severity tiers.
- They were a Federally Qualified Health Clinic (FQHC), a critical access hospital (CAH), or a member of a large medical group or multi-specialty medical group.
- They were located in urban and metropolitan areas.

Patients were more likely to be served by a HCH if:

- They were under five or over 75 years of age.
- They identified as Hispanic, Black, or Asian, or spoke a primary language other than English.
- They had less than a high school education.
- They had high expected resource use
- They had behavioral health conditions.

Quality and Patient Experience:

The evaluation included a comparison of quality of care in HCH and non-HCH primary care clinics in Minnesota. Differences are reported between three groups: non-HCH certified clinics, HCH full-year certified and HCH partial-year certified (termed "Transforming") clinics in Minnesota using 2009-2013

data on a subset of measures that are part of the Statewide Quality Measurement and Reporting System (SQRMS): Optimal Asthma Care (pediatric and adult), Optimal Diabetes Care, Optimal Vascular Care, Depression Remission, Depression Follow-up and Colorectal Cancer Screening.

Results from *quality* measures show:

- HCH Transforming and HCH full-year certified clinics were associated with higher quality of care for Diabetes, Vascular, Asthma (for children and adults), Depression Follow-up, Depression Remission, and Colorectal Cancer screening than non-HCH clinics.
- The largest HCH-related differences in quality of care in the Asthma care measures: that is, the adjusted optimal quality rates for Transforming and HCH-Certified clinics were approximately 13 and 18 percentage points higher, respectively, than the non-HCH quality rate among adults, with similar differences among children.

	Non-HCH clinics	HCH-Transforming clinics (1 st year of certification)		HCH-Certified clinics	
	% meeting goals	% meeting goals	Difference from non-HCH clinic	% meeting goals	Difference from non-HCH clinic
Vascular care	46.6%	53.2%	6.6%	53.3%	6.7%
Diabetes care	36.6%	40.1%	3.5%	40.6%	4.0%
Asthma care (adults)	16.7%	29.8%	13.1%	34.5%	17.8%
Asthma care (children)	19.2%	30.2%	11.0%	39.2%	20.0%
Depression follow-up	19.5%	23.6%	4.1%	26.7%	7.2%
Depression remission	22.6%	24.3%	1.7%	25.0%	2.4%
Colorectal Cancer screening	58.8%	60.7%	1.9%	63.3%	4.5%

Results from *patient experience* measures show:

- Patients reported positive experiences across both HCH and non-HCH clinics, with little difference associated with HCH certification: only communication with one’s doctor showed a small, but significant, benefit for HCH clinics.
- Over half of all HCH clinics had at least 60 percent of their patients who reported a positive score in relation to shared decision making, a key component of the HCH certification standards.

Costs and Utilization:

The evaluation included a comparison of HCH to non-HCH clinics on several metrics of costs to answer two key questions:

- Was care provided in HCHs more expensive or less expensive than care provided in traditional clinics?
- How did HCHs impact use of health care services and costs associated with these services?

The evaluation team analyzed Medicaid and Medicare claims data for the years 2010 through 2014, comparing the use and cost of services between certified HCH clinics and non-HCHs. Use and cost of services were based on seven categories of health care spending measured annually, as well as the Per Member per Year (PMPY) costs.

This evaluation did not examine whether HCHs were more likely to also participate in other state or federal health reform activities, such as Medicaid or Medicare Accountable Care Organizations, than non-HCHs. But if so, some portion of these savings could be associated with participation in those other reform efforts. Additional study will be needed to determine if that was the case.

Overall results related to PMPY show:

- HCHs were nine percent less expensive than non-HCHs in per Member per Year total reimbursement for Medicare, Medicaid, and Dual Eligible enrollees (the sum of the seven spending categories). HCH's cost 12 percent less for Medicaid and three percent less for Dual Eligible enrollees, but were neutral for Medicare enrollees.
- Spending for Medicaid, Medicare and Dual Eligible patients cared for in HCH clinics would have been approximately \$1 billion more during the evaluation period if those patients had not been in HCH clinics.
- An estimated additional \$500 million could have been saved during the evaluation period if the Medicaid, Medicare and Dual Eligible patients who were *not* in a HCH during this period were in a HCH that has the same cost experience.

Table 1: regression adjusted reimbursement by type of insurance, 2010-2014

Insurance Type	Non Certified Clinics Number of enrollees	Non Certified Clinics Average Reimbursement	Certified Clinics Number of enrollees	Certified Clinics Average Reimbursement	PMPY % savings	PMPY \$ savings	Program wide \$ savings (in millions)
Medicare	543,637	\$4,989	275,088	\$4,896	1.9%	\$ 93.20	\$26
Medicaid	1,096,930	\$6,578	1,197,949	\$5,821	11.5%	\$ 756.86	\$907
Dual	117,424	\$34,434	87,597	\$33,581	2.5%	\$ 853.45	\$75
Total	1,757,991	\$7,946	1,560,634	\$7,216	9.2%	\$ 729.64	\$1,139

HCHs were less expensive in three categories of healthcare spending: inpatient hospital admissions, hospital outpatient visits, and pharmacy. Result for these categories show:

- HCH inpatient hospital costs were 34 percent lower for Medicaid enrollees, 31 percent lower for Dual Eligible and 20 percent lower for Medicare enrollees.
- In part, this was because beneficiaries in certified HCHs had dramatically fewer hospitalizations than non-HCHs, with 29 percent, 44 percent and 38 percent fewer admissions for HCH patients in the Medicaid, Dual Eligible and Medicare populations than for non-HCH patients.
- This difference was also due to hospital length of stay. When HCH patients were hospitalized they, across the board, had shorter lengths of stay with, respectively, 41 percent, 36 percent and 32 percent shorter stays for the Medicaid, Dual Eligible and Medicare populations.
- HCH patients also used fewer hospital outpatient services. HCH Medicaid and Medicare enrollees used about eight percent fewer hospital based physician services than non-HCHs and had 13 percent lower costs.
- For the Medicaid population, enrollees in HCHs had three percent more prescriptions than enrollees in non-HCHs, but costs were 18 percent lower.
- For the Dual Eligible population, enrollees in HCHs had two percent fewer prescriptions than enrollees in non-HCHs, and costs that were 20 percent lower.

Two other categories of healthcare spending, emergency department visits and skilled nursing facility admissions, also had significant results when comparing HCHs to non-HCHs. These results are:

- HCH clinics had more emergency department visits than non-HCH clinics (one percent, seven percent and nine percent respectively) and had higher emergency department expenditures (five percent, 18 percent and 21 percent respectively) based on Medicaid, Dual Eligible, and Medicare populations.

- Medicaid populations enrolled in HCHs had 23 percent fewer Skilled Nursing Facility admissions and 13 percent lower costs.
- Dual Eligible populations enrolled in HCHs had 18 percent fewer Skilled Nursing Facility admissions and 18 percent lower costs.

Payment and Care Coordination:

The evaluation team analyzed Medicaid care coordination claims for 2010 to 2014, to learn how HCH organizations and clinics have implemented the state payment methodology and their experiences with payment of care coordination fees and the clinic costs related to implementation.

- Care coordination claims were more likely to be submitted for persons of color, Hispanics, more complex enrollees, Dual Eligible enrollees, and clinics in urban settings.
- Clinics serving low-income enrollees with more complex medical and social needs were more likely to submit care coordination claims.
- The percent of HCHs submitting care coordination claims varied significantly by year: 40.4 percent in 2010, 49.7 percent in 2011, 70.2 percent in 2012, 72.5 percent in 2013, and 64.2 percent in 2014. The average reimbursement per clinic per month was \$728.10 across all years.

Disparities:

The evaluation team used Medicare and Medicaid data to assess whether disparities in access, use, and quality of health care were smaller in HCH-certified primary care clinics than in non-HCH certified primary care clinics. The research team assessed whether disparities may be reduced in HCH compared to non-HCH clinics for: management visits, emergency department visits and overall and unplanned hospitalizations for Medicare, Medicaid, and Dual Eligible (Medicare and Medicaid) enrollees from 2010-2014. The disparity groups assessed were: (1) Race/ethnicity, (2) Disability, (3) Serious Mental Illness, (4) Multi-morbidity, and (5) Rurality. Comparisons are shown for full- or partial-year Certified (HCH) clinics versus those not certified at any time during a given year (Non-HCH). The evaluation found that:

- Racial disparities were significantly smaller for Medicaid, Medicare, and Dual Eligible beneficiaries served by HCH versus non-HCH clinics for most measures, with the exception of African American-White differences in Medicare, which tended to be slightly larger in HCHs.
- Disparities between patients of color and White patients were smaller for adults in Medicaid for emergency department use, overall inpatient use, and unplanned inpatient visits when comparing in HCH than in non-HCH clinics. The only exception was the American Indian compared to White difference in unplanned hospitalizations.

- Among Dual Eligible adults, being treated in a HCH was associated with smaller racial/ethnic differences in emergency room visits and hospitalizations compared to non-HCH patients.

Conclusion

The five year independent evaluation of the Minnesota Health Care Homes program showed that the program has been successful in reducing health care costs and utilization in the areas of inpatient hospital admissions, hospital outpatient visits, and pharmacy use, which contributed to an estimated overall savings of approximately \$1 billion dollars in the lifespan of the program. Additionally, HCH clinics scored higher on quality of care measures and compared to non-HCH clinics. Lastly, the evaluation showed decreasing levels of health care disparities in certified HCHs compared to non-HCH clinics. These findings show that the HCH program continues to be an important model for advancing the triple aim of reducing costs, improving patient experience, and improving overall population health.