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Landscape of Medication Management in the Minnesota Patient-Centered Medical Home (PCMH)

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Abstract
Purpose: To describe the landscape of medication management within the patient-centered medical homes (PCMH) in the state of Minnesota. Methods: An electronic survey of care coordinators within PCMHs certified with the Department of Health in state of Minnesota was conducted. The survey and follow up were distributed by the Minnesota Department of Health. At the time the survey was distributed, there were 161 certified PCMHs in the state. Results: The final analysis included 21 respondents. Size, setting, and time as a certified PCMH varied between practices. PCMHs reported a higher percentage of patients enrolled at lower complexity tiers (35.0 percent at tier I and 40.4 percent enrolled at tier II), with PCMHs with clinical pharmacist services reporting slightly increased frequency of higher complexity patients. The composition of the care team varied from clinic to clinic, but all clinics were multidisciplinary with a mean of 5.8 different provider types listed for each clinic. Physicians were the most common providers of medication management across all settings, and one respondent reported that medication management services are not formally provided in his/her clinic. The presence or absence of a clinical pharmacist did not significantly influence care coordination time dedicated to medication-related activities. Respondents residing in a clinic with clinical pharmacist services reported a high level of satisfaction with pharmacist-provided services. Conclusion: The implementation of the PCMH model in many of the participating clinics was relatively recent and there remains much to be learned regarding the landscape of comprehensive medication management in the PCMH. The reported distribution of patients in complexity tiers suggests that clinics may use different strategies to determine resource allocation. Although the presence of a clinical pharmacist did not influence care coordination time dedicated, care coordinators valued services provided by clinical pharmacists.

Introduction

In 2008, the Minnesota legislature passed a healthcare reform package, developing a framework for patient-centered medical homes (PCMH) in the state. Clinics may be certified with the Minnesota Department of Health (MDH) as a "healthcare home," or PCMH. According to MDH, currently, there are 192 PCMHs certified, serving over two million patients across the state.[1] The PCMH is a model of primary care intended to improve health outcomes and quality of life for patients with chronic diseases.[2]

Medications represent the most common medical intervention for chronic diseases, and their potential for both benefit and harm is immense. Comprehensive medication management allows for the optimization of medication

outcomes and experiences. Medication management occurs regularly, to varying degrees, in the primary care setting. With the increasing profile of local and national PCMHs, an understanding of how medication management is currently delivered will advise successful integration of comprehensive medication management services.

Integration of pharmacy services into the PCMH is occurring in clinics across the country, [3,4,5,6,7] however, little information is available regarding current medication management practices. Smith and colleagues draw on previous literature about successful models of comprehensive medication management in primary care to describe potential roles for pharmacists within the PCMH. Providing comprehensive medication management, recommending cost-effective therapies, and educating patients are described as key areas of pharmacist involvement.[8] The integration of clinical

pharmacists in eight Michigan PCMHs involved a systematic process for training pharmacists and standardizing work so the clinical process and target patient group at each clinic mirrored the others.[3] Interviews of physicians, clinic staff, pharmacists and patients in one study describe an overall positive reaction to the integration of a pharmacist within the PCMH with participants indicating that the pharmacist improved care and was a valuable resource for providers and staff.[4] In their recent article describing the pharmacist role on a collaborative team providing care to a homeless population, Moczygemba and colleagues acknowledge that additional research is needed to clarify and define the roles of pharmacists on interprofessional teams and within the PCMH.[9]

Minnesota is a somewhat unique environment with regards to the provision of Medication Therapy Management (MTM) services. State Medicaid, as well as several private health insurers, compensates pharmacists for MTM provision on a fee-for-service basis. In the state of MN there were 241 pharmacists credentialed with the state Medicaid system to receive compensation for clinical pharmacy services at the time the survey was distributed. This payment structure has allowed health systems to include clinical pharmacists on the healthcare team. Such integration is often challenging outside of Veterans Affairs Healthcare Systems and joint academic appointments with a School or College of Pharmacy.

Current literature describes individual clinic or health system approaches to integrating pharmacists into PCMHs. To date, little work has detailed generalized processes across settings to describe a broader picture of the landscape of comprehensive medication management within the PCMH. In a healthcare environment with limited resources, it is of utmost importance to understand efficient processes of care leading to optimal clinical outcomes. To achieve this, a thorough appreciation of current practices is needed. This study aims to describe the landscape of comprehensive medication management in Minnesota PCMHs.

Methods
Design and Sample
This is a descriptive study conducted in the state of Minnesota. Care coordinators in PCMHs certified with the MDH were eligible to participate. Care coordinators were targeted for this survey because they are a necessary and instrumental component of the PCMH team. Eligible participants were identified by MDH and surveys were distributed electronically to PCMH contacts by MDH using Qualtrics (Qualtrics Labs Inc., Provo, UT). A single follow-up

e-mail was administered by MDH. At the time the survey was distributed, there were 161 certified PCMH in the state.

Survey Instrument
A 15-item survey was developed to assess the landscape of medication management in Minnesota PCMHs (Appendix 1). The survey instrument was piloted with three care coordinators and was reviewed by MDH. Survey questions did not require an answer to progress through the survey.

All respondents were asked to complete 13 items. Two items were asked to be completed only by respondents who were part of a PCMH with a pharmacist on the care team. Of the 13 items completed by all respondents, seven gathered demographic information including full time equivalents (FTEs) dedicated to care coordination, PCMH setting (urban/rural), number of providers in the PCMH, length of time the clinic has been operating as a certified PCMH, number of patients enrolled, distribution of patients in complexity tiers (http://www.health.state.mn.us/healthreform/homes/payment/index.html), and types of providers on the PCMH care team. Four items asked the respondents to estimate the percent of time care coordinators dedicated to a variety of medication-related activities. Questions regarding care coordination time dedicated to medication-related activities were included to determine if any correlation exists between pharmacist presence and time spent on medication-related activities as well as to identify opportunities for pharmacist involvement in the PCMH. Finally, comprehensive medication management was defined and respondents were asked to identify the types of providers responsible for providing comprehensive medication management in their clinic. PCMH with a pharmacist were identified with a simple yes or no question inquiring if the clinic had a pharmacist on the PCMH team. Respondents indicating the presence of a pharmacist on the care team were directed to answer two additional questions regarding pharmacist visits in the PCMH. Respondents were asked to ascertain the mechanism for identifying patients to refer to the pharmacist. Respondents were also asked to respond to a series of statements on a likert scale regarding their experiences with the pharmacist on the PCMH team. This research was designated IRB not required by the Institutional Review Board at the University of Minnesota.

Data Analysis
Descriptive statistics (mean, frequency, percent) calculated using Microsoft Office Excel (2010) used for all variables. Raw data was analyzed for outliers that would significantly skew descriptive statistics.

Questions regarding care coordination time dedicated to medication-related activities were asked individually and respondents selected a range of percent of time dedicated to such activities. To allow for clear reporting of this data, the median of the range was used to calculate the mean time dedicated to medication-related activities. Seven respondents' total time on these four questions exceeded 100 percent, so these responses were standardized to the mean to allow for more representative reporting.

Results
Responses
Twenty-eight care coordinators initiated the survey. Seven responses were deemed outliers and removed from the analysis. Four of these responses were removed because the clinic reported 50 or more providers in the PCMH, which did not reflect the remainder of the clinics reporting 30 or fewer providers. The remaining three responses removed reported at least 50 percent of the patients enrolled in the PCMH to be tier IV complexity. These were deemed to be outliers because the range in tier IV composition without these responses was zero to 20 percent with a mean of 5.4 percent. Two respondents did not complete the survey. The items completed by these respondents were included in the analysis. The final analysis included 21 respondents.

Demographics
Of the 21 responses included in the analysis, 11 were in the urban setting and ten in the rural setting. PCMH reported full time equivalents (FTEs) dedicated to care coordination ranged from 0.4 to four FTEs with most reporting two FTEs dedicated to care coordination. Reported number of providers in the PCMH ranged from less than five to 30 providers with most settings reporting five to 20 providers. Respondents most commonly reported being a certified PCMH for one to 1.5 years and having 100 to 149 patients enrolled (Table 1). PCMH demographic information did not vary significantly with respect to setting (urban/rural) or presence/absence of a pharmacist except rural settings were associated with an increased duration in PCMH at 1.5 to two years compared to urban duration at one to 1.5 years (p = 0.02).

Responses indicated that the majority of patients within the PCMH in the state of Minnesota are at tier I and tier II complexity. Subgroup analysis revealed a difference in complexity in the presence and absence of a pharmacist with slightly greater complexity in PCMH with a pharmacist as compared to those without. A statistically significant difference in percent of patients in tier I was observed between PCMH with presence and absence of a pharmacist (Table 2).

The mean number of health provider types reported on the core PCMH team was 5.8 providers. Full reporting of the frequency of different providers on the core PCMH team can be found in Table 3.

Medication Management within the PCMH
Care coordinators reported most commonly spending time on adherence and medication-monitoring-related activities. An increase in total time spent on medication-related activities was observed in PCMH with a clinical pharmacist (Tables 4 and 5). Nurse practitioners, pharmacists, physicians, physician assistants, and registered nurses were all reported as providers of medication management services, with physicians reported as the most common providers of medication management (Table 6).

Pharmacist Services in the PCMH
Of the 21 responses included in the analysis, 11 reported the presence of a pharmacist on the core PCMH team. Three key members of the PCMH team were reported to be involved in referring patients for clinical pharmacy services including the primary care provider, care coordinator, and pharmacist (with 10, 10, and 5 reports respectively). Six responses indicated that patients are self-referred for clinical pharmacy services within the PCMH. A respondent from one PCMH reported that there is no system in place for referrals to the clinical pharmacist.

Respondents were asked to rate their experiences with the pharmacist on the PCMH team on several items including saving the care coordinator time, a great resource for patients, a great resource for the care coordinator, a great resource for providers, benefits the patient, benefits the care coordinator, benefits the medical staff. Responses were predominantly positively to these statements will all responses as "strongly agree" or "agree" on all measures except one response of "no opinion" on the pharmacist saving the care coordinator time, pharmacist is a great resource for patients, and the pharmacist is a great resource for providers.

Discussion
The advent of the PCMH model in the state of Minnesota is relatively recent. In this project, most clinics reported providing services as a certified PCMH for between one and 1.5 years and only one respondent represented a PCMH certified for two or more years. The recent adoption of the PCMH model indicates that there is still much to be learned regarding practices in the PCMH, including practices for medication management.

Urban or rural setting was not associated with meaningful differences in demographics, with the exception of rural clinics reporting entering the PCMH model earlier than urban clinics. The significance of the timing of entering the PCMH is unclear, however longer duration as a certified PCMH suggests that clinics may have more established systems for recruiting patients into the PCMH and for management once enrolled.

Across settings, the majority of patients were enrolled at complexity tiers I and II. This may be an indicator of clinic strategy for enrolling patients to use limited resources to provide for the most patients. It also may be a gauge of the medical complexity required for patients to qualify for higher tiers. The presence of a pharmacist on the team was associated with patients enrolled at higher complexity, with the majority of patients enrolled at tier II and III, rather than I and II, which was seen within clinics without a pharmacist. Although this was not statistically significant, it suggests a difference between clinics with and without a clinical pharmacist. There are several explanations for the difference in the distribution of patients across complexity tiers between clinics with and without a pharmacist. One such reason is that PCMH with higher tiered patients are recruiting team members, such as pharmacists, to help address the needs of the patients enrolled. As stated previously, medications represent the most common intervention for chronic diseases, and a pharmacist would be uniquely positioned to help address the medication-related needs of complex patients. A second explanation simply reverses the causality pathway, suggesting that if a pharmacist is on the team the PCMH may recruit more complex patients due to the resources available to serve this population.

Composition of care team varied from clinic to clinic, but all were multidisciplinary in nature. Most commonly, core PCMH teams included primary care physicians, registered nurses, nurse practitioners, social workers, pharmacists, and physician assistants. However this study did not evaluate how the team worked together. This study simply evaluated who was on the team and what team members are responsible for medication management.

Care coordinator time dedicated to medication-related activities was gathered to begin describing the medication management process within the healthcare home. Responses indicate that medication-related activities require a substantial amount of time on the part of care coordinators. It could be anticipated that the presence of a pharmacist would be associated with less time spent by the care coordinator on medication-related activities. However, this was not the case. There was a trend toward additional time spent by care coordinators on medication-related activities in clinics with a pharmacist as compared to those without a pharmacist. There are likely several factors contributing to this increase in time, including an increase in more complex patients in clinics containing a pharmacist. It is also possible that pharmacists in these clinics raise the awareness of medication-related needs of patients, thereby increasing the time spent on care coordination activities related to these needs.

Survey responses indicate that a variety of provider types are delivering comprehensive medication management in the PCMH. According to the Patient Centered Primary Care Collaborative (PCPCC), patients at clinical goal or with medication regimens of lower complexity may have their medications effectively managed by their primary care provider. The PCPCC also states that patients with complex medication regimens, adverse effects, or not reaching clinical goal will benefit from working directly with a pharmacist, as pharmacists have the required knowledge and skills to optimize medication regimens.[10] This assumes that all PCMH will have access to a pharmacist. Recognizing that only about half of the clinics participating in our survey have a pharmacist on the team, there are significant limitations to this assumption. This may bring to light a barrier to patient access to pharmacists practicing in the clinic setting. It may also demonstrate the need to adopt a process of ensuring medication management occurs, regardless of provider type, and a system for identifying patients requiring referrals to a pharmacist.

Survey responses indicated a high level of overall satisfaction with pharmacist-provided services. There are likely several factors contributing to this finding including excellent services provided and the uncertain role of the pharmacist in the clinic setting. Few people, including healthcare workers, are familiar with the scope of the pharmacist. Many view dispensing as a primary function of pharmacist duties. This unfamiliarity may have influenced respondents' reports of satisfaction because services provided broadened the perceived scope of practice.

Limitations
This study has several limitations that must be considered. Although the response rate was quite low, this study represents the first of its kind in characterizing current practices regarding medication management in the PCMH. Responses remained anonymous, however the distribution of responses characterized as coming from an urban or rural setting closely matches that of the certified PCMH across the state.[11] The low response rate was likely the result of only one follow-up e-mail as the investigators did not have access

to the list of PCMH contacts and MDH was not willing to send an additional follow-up e-mail on the investigators' behalf.

The results pertaining to care coordinator time dedicated to medication-related activities revealed a sizable proportion of care coordinator time dedicated to medication-related activities. The raw data was standardized because seven respondents' total time spent on medication-related activities exceeded 100 percent. Care coordinators have responsibilities beyond medication-related activities so the authors decided to standardize these seven responses to the mean to allow for interpretation. This error in data likely occurred because the survey items regarding care coordination dedicated to medication-related activities appeared individually in the survey instrument and respondents were not likely able to anticipate that they would be asked multiple questions regarding time spent on medication-related activities. Respondents also may not have been able to fully distinguish between the activities so there may have been some overlap in reported time.

Future directions
Our study attempted to capture "who" was responsible for identifying and referring to the pharmacist for comprehensive medication management. It did not capture "how" this occurring. Understanding effective processes for identifying and referring patients is necessary for the development of a successful medication management service.

Future attempts to describe care coordinator time spent on medication-related activities should allow care coordinators to view all items on this topic as well as describe how much, if any, is delegated to the pharmacist.

As stated previously, respondents to this survey have spent a very limited amount of time in the PCMH. There remains much to learn about best practices in the PCMH and maximizing the unique expertise and contributions of all members of the healthcare team.

Conclusion
The implementation of the PCMH model in many of the participating clinics was relatively recent and there remains much to be learned regarding best practices for comprehensive medication management in the PCMH. The reported distribution of patients in complexity tiers suggests that clinics may use different patient enrollment and staffing strategies to determine optimal resource allocation to manage the unique needs of patients enrolled in the PCMH. Although the presence of a pharmacist did not influence care coordination time dedicated to medication management, care coordinators valued services provided by pharmacists.

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Table 1: PCMH demographics

	Category	Frequency (%)
FTE dedicated to care coordination (n=21)	0.5 FTE	1 (4.7)
	1 FTE	5 (23.8)
	1.5 FTE	0 (0)
	2 FTE	10 (47.6)
	Other[*]	5 (23.8)
Setting (n=21)	Urban	11 (52.4)
	Rural	10 (47.6)
Number of Medical Providers (n=21)	<5	2 (9.5)
	5-10	7 (33.3)
	11-20	7 (33.3)
	21-30	5 (23.8)
	31-40	0 (0)
	41-50	0 (0)
Time in PCMH (n=21)	< 6 months	0 (0)
	6 months to < 1 year	6 (28.6)
	1 year to < 1.5 years	9 (42.9)
	1.5 years to < 2 years	5 (23.8)
	>/= 2 years	1 (4.7)
Number of patients enrolled (n=20)	< 20	0 (0)
	20-49	3 (15)
	50-99	4 (20)
	100-149	8 (40)
	150-199	2 (10)
	>/= 200	3 (15)

*"Other" responses for FTE dedicated to care coordination include: 0.4, 0.75, 3, 3.5, 4

Table 2: Distribution of patients in complexity tiers

Tier	Cumulative Average (range)	Pharmacist Absent Average (range)	Pharmacist Present Average (range)	*p*-value
I	35.0 (0-95)	45.4 (0-95)	20.1 (0-60)	0.01
II	40.4 (3-83)	28.4 (0-45)	50.3 (20-83)	0.05
III	19.2 (1-40)	14.7 (1-35)	23.3 (7-40)	0.13
IV	5.4 (0-20)	2.75 (0-10)	6.4 (0-20)	0.19

Table 3: Frequency of health provider type reported on core PCMH team

Provider type	Cumulative n=21 (%)	Urban n=11(%)	Rural n=10 (%)	Pharmacist Absent n=8 (%)	Pharmacist Present n= 11(%)
Chiropractor	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Licensed counselor	4 (19.0)	1 (9.1)	3 (30.0)	2 (25.0)	2 (18.2)
Nurse practitioner	14 (66.7)	7 (63.6)	7 (70.0)	7 (87.5)	7 (63.6)
Occupational therapist	4 (19.0)	1 (9.1)	3 (30.0)	3 (37.5)	2 (18.2)
Pharmacist	12 (57.1)	7 (63.6)	5 (50.0)	1 (12.5)	9 (81.8)
Physician assistant	12 (57.1)	6 (54.5)	6 (60.0)	3 (37.5)	8 (72.7)
Physical therapist	6 (28.6)	2 (18.2)	4 (40.0)	3 (37.5)	2 (18.2)
Primary care physician	20 (95.2)	10 (90.9)	10 (100)	8 (100)	11 (100)
Psychiatrist	2 (9.5)	1 (9.1)	1 (10.0)	2 (25.0)	0 (0)
Psychologist	6 (28.6)	3 (27.3)	3 (30.0)	3 (37.5)	2 (18.2)
Registered nurse	18 (85.7)	9 (81.8)	9 (90.0)	6 (75.0)	11 (100)
Social worker	13 (61.9)	9 (81.8)	4 (40.0)	4 (50.0)	8 (72.7)
Other	10 (47.6)	6 (54.5)	4 (40.0)	7 (87.5)	3 (27.3)

Table 4: Percent care coordinator time dedicated to medication-related activities

Medication related category	Cumulative Average (n=21)	Pharmacist Absent Average (n=8)	Pharmacist Present Average (n=11)
Medication adherence	34.5	27.5	39.5
Medication safety	21.3	11.3	28.6
Medication monitoring	23.4	23.8	23.2
Communicating with pharmacies	17.1	13.8	19.1

Table 5: Standardized percent care coordinator time dedicated to medication-related activities

Medication related category	Cumulative Average (n=21)	Pharmacist Absent Average (n=8)	Pharmacist Present Average (n=11)
Medication adherence	22.7	19.5	25.1
Medication safety	11.6	8.4	13.9
Medication monitoring	14.5	17.9	12.1
Communicating with pharmacies	10.3	8.7	11.7

Table 6: Frequency of provider type offering medication management services in the PCMH

Provider type	Cumulative n=19 (%)	Urban n=10 (%)	Rural n=9 (%)	Pharmacist Absent n=8 (%)	Pharmacist Present n= 11 (%)
Nurse practitioner	11 (57.9)	5 (50.0)	6 (66.7)	5 (62.5)	7 (63.6)
Pharmacist	13 (68.4)	7 (70.0)	6 (66.7)	3 (37.5)	10 (90.9)
Physician	16 (84.2)	8 (80.0)	8 (88.9)	6 (75.0)	10 (90.9)
Physician assistant	10 (52.6)	5 (50.0)	5 (55.6)	2 (25.0)	8 (72.7)
Registered nurse	10 (52.6)	4 (40.0)	6 (66.7)	5 (62.5)	6 (54.5)
Other	2 (10.5)	1 (10.0)	1 (11.1)	1 (12.5)	1* (9.1)
Not sure	1 (5.3)	1 (10.0)	0 (0)	1 (12.5)	0 (0)
This type of assessment is not formally provided at our clinic	1 (5.3)	1 (10.0)	0 (0)	1 (12.5)	0 (0)

*Listed as "MTM". MTM can be defined as Medication Therapy Management, which is a pharmacist, provided service.

Appendix 1

Purpose of the Study:
The data obtained from the surveys will be used to answer the primary research question which is to describe the landscape of medication management in healthcare homes (HCH) in Minnesota. The results of this research will be used in preparation of a manuscript.

Survey:
You will complete a survey, which will take approximately 10 minutes. The survey includes questions about your HCH team and medication management within your HCH. Your participation in this study is complete upon submission of the survey. The results from all survey participants will be evaluated by the researchers.

Confidentiality:
Your responses will be kept completely confidential. We will NOT know your IP address when you respond to the Internet survey.

Decision to quit at any time:
Your participation is voluntary; you are free to withdraw your participation from this study at any time. If you do not want to continue, you can simply leave the survey website. If you do not click on the "submit" button at the end of the survey, your answers and participation will not be recorded. You also may choose to skip any questions that you do not wish to answer.

How the findings will be used:
The results of the study will be used for scholarly purposes. The results from the study will be presented in educational settings and at professional conferences, and the results might be published in a professional journal.

Contact information:
If you have concerns or questions about this study, please contact Maggie Wallace (wall0559@umn.edu).

By beginning the survey, you acknowledge that you have read this information and agree to participate in this research, with the knowledge that you are free to withdraw your participation at any time without penalty.

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Background

My clinic has _____ FTE dedicated to care coordination.

- ○ 0.5 FTE
- ○ 1 FTE
- ○ 1.5 FTE
- ● 2 FTE
- ○ Other

    [   ]

My clinic is located in a(n) _____ community.

- ○ Urban
- ○ Rural

Number of medical providers (physicians, nurse practitioners, and physician assistants) practicing in your clinic.

- ○ < 5
- ○ 5-10
- ○ 11-20
- ○ 21-30
- ○ 31-40
- ○ 41-50
- ○ >50

How long has your clinic been a certified Health Care Home (HCH)?

- ○ < 6 months
- ○ 6 months to < 1 year
- ○ 1 year to < 1.5 years
- ○ 1.5 years to < 2 years
- ○ >/= to 2 years

Estimate the number of patients enrolled in your (HCH).

○ < 20

○ 20-49

○ 50-99

○ 100-149

○ 150-199

○ >/= 200

Estimate the percentage of patients are enrolled at HCH tier? (Total should equal 100%.)

0	I
0	II
0	III
0	IV

What types of health care providers are on your team? (Check all that apply.)

☐ Chiropractor(s)

☐ Licensed counselor(s)

☐ Nurse practitioner(s)

☐ Occupational therapist(s)

☐ Pharmacist(s)

☐ Physician assistant(s)

☐ Physical therapist(s)

☐ Primary care physician(s)

☐ Psychiatrist(s)

☐ Psychologist(s)

☐ Registered nurse(s)

☐ Social worker(s)

☐ Others (list)

[ ]

[>>]

Care coordination dedicated to medication use

Estimate the percentage of care coordination time that is related to medication adherence. This includes the time you spend on these activities as well as the time you spend involving other providers in medication adherence related activities. Medication adherence is defined as the extent to which patients take their medications as prescribed.

- ○ < or = 10%
- ○ 11–20%
- ○ 21–30%
- ○ 31–40%
- ○ 41–50%
- ○ 51–60%
- ○ 61–70%
- ○ 71–80%
- ○ 81–90%
- ○ 91–100%

Estimate the percentage of care coordination time that is related to safety of medications (e.g. side effects, drug interactions). This includes the time you spend on these activities as well as the time you spend involving other providers in medication safety related activities.

- ○ < or = 10%
- ○ 11–20%
- ○ 21–30%
- ○ 31–40%
- ○ 41–50%
- ○ 51–60%
- ○ 61–70%
- ○ 71–80%
- ○ 81–90%
- ○ 91–100%

Estimate the percentage of care coordination time dedicated to medication monitoring (e.g. lab values, safety, efficacy). This includes the time you spend on these activities as well as the time you spend involving other providers in medication monitoring related activities.

- ○ < or = 10%
- ○ 11–20%
- ○ 21–30%
- ○ 31–40%
- ○ 41–50%
- ○ 51–60%
- ○ 61–70%
- ○ 71–80%
- ○ 81–90%
- ○ 91–100%

Estimate the percentage of care coordination time that is spent communicating with pharmacies about insurance coverage, access to medications, prior authorizations, cost and issues with access. This includes the time you spend on these activities as well as the time you spend involving other providers in medication access related activities.

○ < or = 10%

○ 11–20%

○ 21–30%

○ 31–40%

○ 41–50%

○ 51–60%

○ 61–70%

○ 71–80%

○ 81–90%

○ 91–100%

Comprehensive medication management is a formal assessment that determines whether a patient's medications (whether they are prescription, nonprescription, alternative, traditional, vitamins, or nutritional supplements) is appropriate for the patient, effective for the medical condition, safe given the medical conditions and other medications being taken, and able to be taken by the patient as intended. In your clinic, who provides comprehensive medication management services? (Check all that apply.)

☐ Nurse practitioner(s)

☐ Pharmacist(s)

☐ Physician(s)

☐ Physician Assistant(s)

☐ Registered Nurse(s)

☐ Other (list)
[   ]

☐ Not sure

☐ This type of assessment is not formally provided at our clinic

Pharmacist visits

Do you have a pharmacist on your HCH team?

○ Yes

○ No

[>>]

Please rate your experience with the pharmacist on the healthcare home team.

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Uncertain
Having a pharmacist on the HCH team saves me time.	○	○	○	○	○	○
Having a pharmacist on the HCH team is a great resource for patients.	○	○	○	○	○	○
Having a pharmacist on the HCH team is a great resource for the care coordinator.	○	○	○	○	○	◉
Having a pharmacist on the HCH team is a great resource for health care providers.	○	○	○	○	○	○
Having a pharmacist on the team benefits the patient.	○	○	○	○	○	○
Having a pharmacist on the team benefits the care coordinator.	○	○	○	○	○	○
Having a pharmacist on the team benefits medical staff.	○	○	○	○	○	○

> >

We thank you for your time spent taking this survey.
Your response has been recorded.