



Integrating Medication Management

Lessons Learned from Six Minnesota Health Systems


UNIVERSITY OF MINNESOTA
College of Pharmacy
PETERS CHAIR FOR PHARMACY PRACTICE INNOVATION



These case studies describe medication management program development in six integrated Minnesota health systems.

This series includes case studies for: Essentia Health, Fairview Health Services, HealthPartners, Hennepin County Medical Center, Mayo Clinic, and Park Nicollet Health Services.

Across these health systems, we explored the evolution of medication management services and the factors that influenced the design of each institution's care model. We also investigated how leaders established the programs' presence as a priority service and sustained organizational support for the service.

Data was collected via semi-structured interviews with key stakeholders within each health system. A separate publication outlines results of a thematic analysis of the interviews. These case studies represent a summary of the interviews with each individual organization, providing a narrative of the organization's program development experience.

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Table of Contents

Success Through Teamwork	
A Case Study of Integrated Medication Management at Essentia Health.....	3
Consistent Care Model is Key	
A Case Study of Integrated Medication Management at Fairview Health Services	8
Culture Generates Strategy	
A Case Study of Integrated Medication Management at HealthPartners.....	16
Improving Patient Safety and Quality	
A Case Study of Integrated Medication Management at Hennepin County Medical Center	23
Communication Strategies Build Momentum	
A Case Study of Integrated Medication Management at Mayo Clinic	29
Building a Web of Influence	
A Case Study of Integrated Medication Management at Park Nicollet Health Services	35
Themes Associated with Service Integration.....	42
Theme Definitions	43

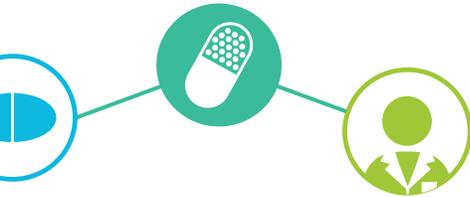


Essentia Health

“Essentia is moving more aggressively to accountable care than most health systems in the country...We are trying to move out of the fee-for-service world into the accountable world.”

Success Through Teamwork

A Case Study of Integrated Medication Management
at Essentia Health



www.essentiahealth.org

Large integrated health system, covering a large geographic area including northern Minnesota, northern Wisconsin and North Dakota.

- 443,000 patients in the health system

Medication Management within Essentia

- Program created in 2004
- 2.5 clinical pharmacist FTEs
- 3 Residents
- 12 clinics with medication management services
- 2400 annual medication management encounters
- Collaborative practice agreements
 - Dyslipidemia
 - Hypertension

THE BEGINNING

The idea of placing a clinical pharmacist within the internal medicine department to educate patients about their medicines had been percolating among pharmacy and medical staff leaders at Essentia Health for some time. The catalyst for moving ahead with comprehensive medication management services was the opening of a satellite campus of the University of Minnesota College of Pharmacy on the University of Minnesota-Duluth campus. College administrators and faculty approached system leaders with a goal of developing clinical training sites. This collaboration was the beginning of an evolving process of integrating medication management services within the health system which is leading the way in structuring around pay-for-performance and accountable care.

One interviewee noted that once the decision was made to begin developing medication management services, its early offering was supported by Essentia pharmacy leadership based on the belief that offering the services “was the right thing to do.” A faith in the value of medication management services and mounting evidence in the literature that

new medications immediately after they were prescribed. This later evolved into the addition of a clinical pharmacist from the College, which catalyzed further growth of the program.

GROWTH AND EVOLUTION

Interviewees said that during the service’s initial period with the faculty member, the service operated as a consultative model. The pharmacist conducted chart reviews to identify patients who were not meeting their treatment goals. They made recommendations to the patient’s primary care provider on how the medication management services could help

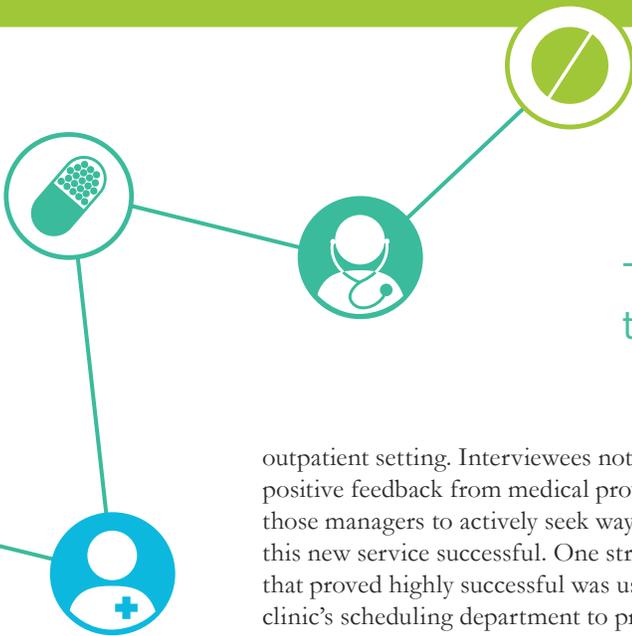
Its early offering was supported by Essentia pharmacy leadership based on the belief that offering the services “was the right thing to do.”

showed pharmacist intervention in patients’ care improves overall health outcomes led pharmacy department leaders to establish a budget that would support the introduction of the service in an internal medicine clinic.

As part of the initial service offering, a pharmacist was located in the internal medicine clinic and educated patients on the

the patient reach goals. She was also involved in clinic operations and conducted education to teach the clinic staff how to correctly review a medication list and elicit information from the patients.

This experience led clinic managers to become very supportive of the clinical services provided by the pharmacist in the



Target criteria identified patients taking 6-10 medications.

outpatient setting. Interviewees noted that positive feedback from medical providers led those managers to actively seek ways to make this new service successful. One strategy that proved highly successful was using the clinic's scheduling department to prescreen patients who met criteria for medication management services and schedule separate appointments for comprehensive medication management visits before or after an already-established primary care visit. Target criteria identified patients taking 6-10 medications and scheduled for their annual physicals, those with post-acute care follow-up appointments, and those with chronic conditions including diabetes and asthma. Interviewees noted that

“Schedulers would review patient charts for those with appointments and call the patients that met the criteria. Suddenly, our schedules were full.”

the state of Minnesota's mandatory quality reporting system (“Minnesota Community Measurement”) and its focus areas for measurement was an influential factor for Essentia staff when developing the criteria.

“Schedulers would review patient charts for those with appointments and call the patients that met the criteria using a pre-written script. Suddenly, our schedules were full,” noted one interviewee.

The scheduling system and patient targeting process were key to the services growth. Also at this time (2007-2008), Essentia Health added a pharmacy residency program. This allowed for an expansion of service delivery, creating more consistent coverage and building further momentum for the program.

A formal return on investment (ROI) analysis of medication management services through Minnesota Medicaid and other payers was conducted when an additional pharmacist position was being considered. The ROI was positive based upon a projection of 10 medication management services visits per day and the associated expected revenue from a billable patient mix of Medicare Part D and Minnesota Medicaid. The ROI projection was too optimistic with the resulting revenue less than anticipated to cover a portion of the position's cost. However, the position was created because the leadership was committed to keeping medication management services available to patients because it is “the right thing to do.”

Once the medication management was staffed at a level that provided consistent availability of pharmacist time for patient care appointments, the leadership team began to focus on protocol development for lipid and hypertension management. A universal collaborative practice agreement that addressed several clinical areas was developed and became an important administrative tool that supported the medication management care process. An interviewee pointed out that a unique roll out strategy was employed, by which all physicians were initially included in the collaborative agreement with the medication management pharmacists and then given the option to “opt out” of that agreement. Having the right staff who could build relationships with the medical staff was critical, according to one interviewee. The ability to create strong relationships with a core set of medical providers who realized success collaborating with the pharmacy staff led to those providers telling their colleagues about their experiences. This built momentum and led to greater success. As one interviewee reflected, “I tried to find one core medical provider to team up with when I started in the clinic, requesting that they provide some

Patients would frequently make comments after visits with the pharmacy staff such as, “This is one of the best visits I’ve ever had.”

patient referrals. Once she was onboard and saw that her patients were having good outcomes and were happy with the visits, she told one of her colleagues, ‘I’ve been using the pharmacist to see a lot of my patients and it’s going really well. Maybe you should do some referrals.’”

Another key factor to the service’s success was patient testimonials. Interviewees said patients would frequently make comments after visits with the pharmacy staff such as, “This is one of the best visits I’ve ever had.” Consistently positive responses from patients to their physicians helped move the whole program along, including staff acceptance and support. Interviewees stated that medical providers feel the value added because some of the burden of managing a patient’s medications is lifted and it promotes a team approach to care.

One interviewee reflected on this growth of team-based care by sharing that the medication management service has evolved in part due to Essentia’s philosophy that each team member should be practicing at “the top of their license.” Caring for the patient is shared among

2012 to participate in the Medicare Shared Savings Program as an Accountable Care Organization (ACO) with more than 33,000 covered lives. in 2012. Essentia's ACO is one of only six in the nation to receive ACO accreditation from the National Committee for Quality Assurance. As of January 2013, Essentia provides ACO care to more than 100,000 patients through multiple payer contracts.

TODAY

Pharmacists are now embedded in the care team, with consistent availability every day in multiple clinics in the Essentia Health system. When they are not seeing patients, they are accessible to other team members at a work station within the clinic. Staff frequently request “curbside consults.” The permanent presence of pharmacists in the clinic allows nurses to triage questions related to patients calling in to the clinic. Further, the pharmacist is able to conduct pre-physician visit consults with patients. As one interviewee said, this has been another source of service growth,

Essentia Health is actively pursuing expansion of the medication management service through the use of televisits by the pharmacists, extending medication management services to rural areas.

team members who include physicians, mental health providers, nurses, therapists, and others. Pharmacists and comprehensive medication management services are integrated into this team approach to practice, which is becoming integral to Essentia Health’s accountable care strategy. Essentia Health was chosen in July

contributing to the maturity of the care model. Now, Essentia Health is actively pursuing expansion of the medication management service through the use of televisits by the pharmacists, extending medication management services to rural areas served by the organization.

Conceptual timeline for the growth of the Essentia medication management program relating to operations, relationships, and results.

	FOUNDATIONAL	FORMALIZED	SUSTAINABLE
OPERATIONS	Clinic-based medication education by pharmacists	Partnership with the College of Pharmacy	
			Systematic scheduling of high-risk patients
		Collaborative practice agreements	
RELATIONSHIPS	Collegiality among health care team members		
	Early clinician adopters	Clinic and leadership champions	
RESULTS	Patient stories		
	Medication costs		MN Community Measurement
	Accountable care contracts		
	Pay-for-performance		

Today, with the emphasis on quality and pay-for-performance, Essentia Health is actively measuring the medication management service interventions and other quality metrics, dedicating a pharmacist to this task. Currently, process measures are the focus, reporting the number of patients that have been seen, the interventions made, and drug therapy problems identified. Moving forward, interviewees say they will begin looking at ways to link the pharmacist interventions to the health system's clinical dashboard.

Recently, the pharmacy team at Essentia Health began working with Stratis Health (Minnesota's CMS Quality Improvement Organization [QIO]) to create systems for data collection and measurement around medication management in conjunction with other health systems in the state. Interviewees noted that this is part of Essentia's response to the evolving landscape that emphasizes "pay for performance."

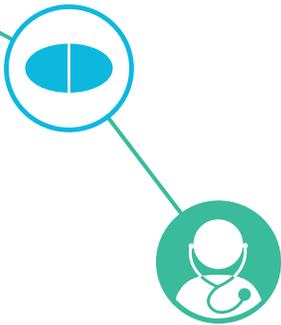
From a strategic standpoint, staff at Essentia Health state that they are moving more aggressively to accountable care than many other health systems in the country. The organization participates in the Medicare Shared Savings program noted earlier, and the state of Minnesota's Health Care Delivery

System demonstration program, a pilot of Minnesota Medicaid that is testing alternative health care delivery systems, including ACOs. They also have numerous pay-for-performance contracts with other payers. Interviewees note that they are aggressively moving past fee-for-service to accountable care models is driving a focus on quality measurement and a motivation to reconsider the organization's care delivery model. Another noted, "An organizational focus on the Triple Aim of total cost of care, patient experience, and quality is giving us an opportunity to show that medication management services is an important quality lever for Essentia Health."

As one pharmacist who was interviewed noted, "When I go to a conference for a week and people call my cell phone and say, 'Where are you? You're missing. I have questions. I need you.' To know that team members actually notice when I'm gone is a big deal for me. It's a sign that our services are truly valued and an indispensable part primary care within Essentia."

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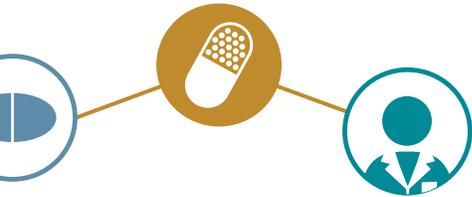




“We deliver care as a team and when we don’t understand that we’re a team, it goes poorly.”

Consistent Care Model is Key

A Case Study of Integrated Medication Management
at Fairview Health Services



www.fairviewmtm.org

Integrated health system with 45 primary care and 55+ specialty clinics.

- 1,197,426 patients in the health system

Medication Management within Fairview Health Services

- Program created in 1997
- 18 clinical pharmacist FTEs
- 30 clinics with medication management services
- 8,411 annual medication management encounters
- Collaborative practice agreements
 - Allergic Rhinitis
 - Anxiety/Depression
 - Asthma
 - Benign Prostatic Hyperplasia
 - Chronic Kidney Disease
 - COPD
 - Diabetes
 - Dyslipidemia
 - GERD
 - Gout
 - Heart Failure
 - Hypertension
 - Migraine
 - Osteoporosis
 - Non-narcotic pain management
 - Smoking Cessation
 - Urinary incontinence

THE BEGINNING

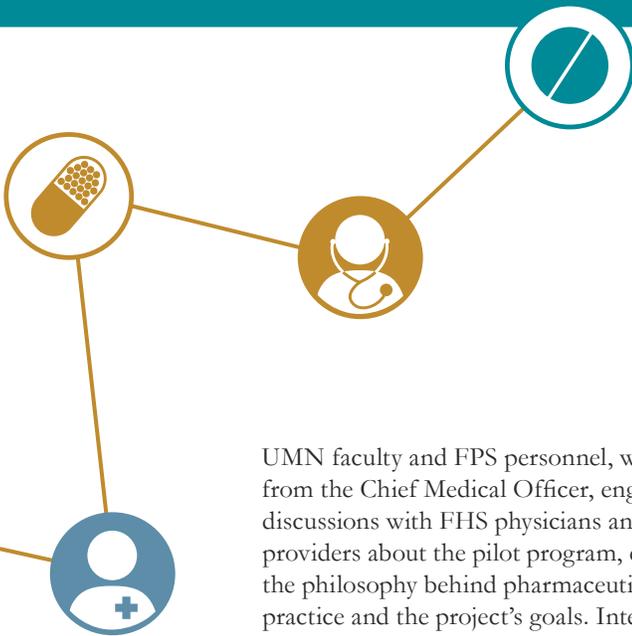
An early partnership with the University of Minnesota College of Pharmacy to implement the pharmaceutical care process, combined with interprofessional team support and results-focused outcomes measurement, has enabled Fairview Pharmacy Services (FPS) to implement comprehensive medication management services. Today, those services are offered in 30 clinics by 21 pharmacists and

“Our CEO at the time was absolutely clear in his vision that it was the right thing to do for patients, whether or not we were budget neutral.”

2 pharmacy residents who engage in nearly 8,500 patient encounters each year. The team’s experiences have been the subject of extensive reports in peer-reviewed publications and the media, and have been recognized with numerous awards, including the American Pharmacists Association Foundation’s Pinnacle Award in 2004.

In 1997, when Fairview Health Systems (FHS) purchased the University of Minnesota (UMN) Hospital, dialogue occurred within the Academic Health Center on ways to leverage the new relationship in partnership with medicine and pharmacy. Pharmaceutical care was in its development stages, and interviewees noted that Fairview and the College of Pharmacy shared a desire to foster its development within the health system. There was a commitment by Fairview’s pharmacy leadership and a corporate budget that supported the initiative being undertaken by Fairview Pharmacy Services, LLC, a separate entity from Fairview Health Systems.

Four practitioners began the pilot program to develop pharmaceutical care practice sites, in conjunction with the UMN College of Pharmacy. In addition, core team members included the FPS retail operations director, the marketing director and a regional manager. From the start, there was support from administrative, physician and pharmacy leaders. One interviewee said, “Our CEO at the time was absolutely clear in his vision that it was the right thing to do for patients, whether or not we were budget neutral.” Further, the Chief Medical Officer was an early and important project champion providing leadership and advocacy, and helping acculturate the medical staff to accept pharmacist care providers. Early on the pharmaceutical care team created a vision for the medication management services during an annual retreat. As one interviewee noted, “We wanted to be nationally recognized for the paradigm shift of pharmacy.”



“We wanted to be nationally recognized for the paradigm shift of pharmacy.”

UMN faculty and FPS personnel, with support from the Chief Medical Officer, engaged in discussions with FHS physicians and other providers about the pilot program, describing the philosophy behind pharmaceutical care practice and the project’s goals. Interviewees noted that medical providers were engaged in these early discussions and were asked about their level of interest in participating in the pilot. In addition to interest and commitment, pilot clinic sites also needed to have a patient population that was complex with respect to medication use. Once clinic sites were selected, medication management services were initially implemented within community pharmacies located within the clinics. However, program leaders quickly observed work-flow issues when medication management and prescription dispensing processes were designed to operate simultaneously. For this and other reasons, the leadership team made an early strategic decision to separate dispensing and medication management services and integrate pharmacists providing medication management services into Fairview’s primary care clinics. Physicians and other clinicians in the pilot sites became

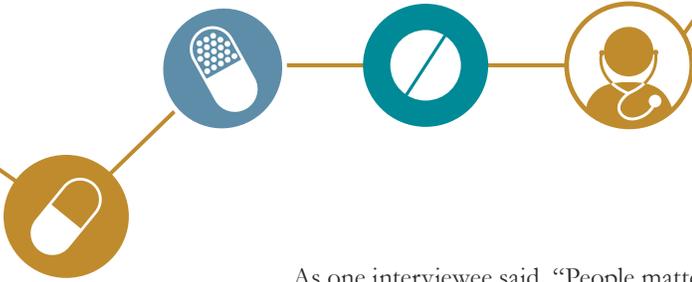
of Pharmacy faculty to clearly define the care process that would be employed by pharmacy practitioners, confirming adoption of a comprehensive, structured patient care process. This commitment to a consistent care process allowed leadership to establish several important implementation strategies. The first was a decision to require all pharmacists who would provide medication management services to complete an in-depth educational program in the pharmaceutical care practice model offered by the UMN. Another strategy adopted was for Fairview pharmacists to utilize a computerized patient care documentation system specifically designed to support the care model (this predated adoption of electronic health records in many practices). The pharmacists also documented in the medical record, so all communication with the team was available to all providers. Now documentation is completed in the health systems electronic medical record. To support consistency across practitioners, a continuous quality improvement process was developed through which pharmacy practitioners would meet monthly to discuss clinical topics,

In addition to interest and commitment, pilot clinic sites also needed to have a patient population that was complex with respect to medication use.

champions of medication management services. “Fairly quickly, our most significant problem was that sites that did not have a medication management services practitioner were saying, “I want that,” said one interviewee. But Fairview was still in the pilot project phase and did not have the financial capacity to expand at that time.

Program leaders shared that another critical element to the program’s early success was a decision to collaborate with College

conduct peer review of cases and review their documentation. Interviewees shared that the combination of a baseline educational program, use of a documentation system aligned with the practice model and a peer review process to confirm consistency and quality which drove consistency in the practice and laid the groundwork for future expansion. But they also acknowledged that the vision, commitment and passion for medication management services on the part of the first group of pharmacist providers was also a critical driver of success.



As one interviewee said, “People matter. It’s not all about strategy and techniques.”

Ultimately, the team indicated that the success of the pilot sites proved Fairview and the UMN College of Pharmacy could effectively work together to achieve a new model of care. Collaboration between Fairview and the UMN College of Pharmacy was a new endeavor and simply finding a way to successfully collaborate in patient care was deemed to be an important “early win.” It also demonstrated the medication management services could successfully be integrated into the patient care team and that there was a role for these services.

EVOLVING BEYOND PILOTS

While the pilot project did receive corporate support from FHS, according to interviewees the fact that FPS is a wholly-owned, diversified business entity created flexibility to invest its own resources to support continued growth of medication management services and do so in a nimble fashion. Because community pharmacies had been present in FHS clinics for several years, existing collegial relationships

“This is a person [pharmacist] I can utilize to help me get quality outcomes and meet cost goals.”

between pharmacists and medical providers also supported acceptance and growth of the service. Building relationships and reporting program results generated interest and momentum for the medication management service, leading medical providers to believe that medication management and a team-based care model was something that deserved

investment. Pharmacy leaders found that there were many physician leaders committed to testing care model innovation and then diffusing it throughout the system, especially during the first few years.

From the pilot project’s holistic approach to providing services to all patients with complex conditions and/or medication regimens in the primary care clinics grew the first collaborative practice agreement (CPAs) in 2003 for lipid management. Soon CPAs for diabetes, hypertension, and other conditions were added. Interviewees noted that the focus on these CPAs solidified medication management services into the primary care process. They also reflected that the initial decision to integrate medication management into primary care, rather than in specialty clinics, was a key factor in growing and implementing integrated, comprehensive medication management services as the holistic approach fit well in the primary care model.

Relationship building and marketing were also factors in growing medication management services. The pharmacists providing the service had strong relationships with the medical staff they interacted with, allowing them to directly discuss medication care plans and develop a trust in their clinical skills. Brochures, videos, and flyers were disseminated throughout the clinics, on the Fairview web site, and during clinic meetings. Medical staff experiences with pharmacists were shared among medical providers, allowing broader groups of physicians to hear, in their peers words, how medication management services had helped to manage patients with complex medication regimens and see improved health outcomes. Medication management issues were integrated into the system’s quality committees, also contributing to growth. One interviewee stated that physicians began to reflect, “This is



“Stories are the most powerful way to make something visible and relatable to other people.”

a person [pharmacist] I can use to help me get quality outcomes and meet cost goals,”

One physician interviewee said, “As soon as they [physicians] experienced working with a pharmacy provider in this manner, they couldn’t imagine why their colleagues wouldn’t also want to have access to pharmacists on their team. It removes a burden we physicians are hesitant to give voice to, which is, given the complexity of disease and more notably the complexity of the many medications involved in treating those diseases, there’s no way I can

important. The pharmacist providers engage patients using motivational interviewing, medication experience, and looking at all angles that could directly involve patient and patient outcomes.

Ultimately, this direct engagement with patients created powerful patient stories and interviewees noted the power of these stories in growing the medication management service. One interviewee stated, “Stories are the most powerful way to make something visible and relatable to other people. The stories of how

“As soon as they [physicians] experienced working with a pharmacy provider in this manner, they couldn’t imagine why their colleagues wouldn’t also want to have access to pharmacists on their team.”

keep track of all of the medications...the side effects...the med-to-med interactions...to have someone who’s there, who sits down with a patient...is a relief. The people who do it...are collegial and relationship-based. That is the single biggest thing early on that made it stick.”

The medication management service’s patient-centered approach also contributed to its success. As an interviewee said, “You can say it’s engaged patients that come to see us, but I think one of the big strengths of the program has been the level of patient involvement, the time that was given to patients, the engagement, the follow up, having one number for patients to call, having that resource. That has played an important role [in success].” Another said, “Patients would say over and over again, “I felt listened to,” “I felt cared for, someone took time for me,” “I knew how to reach them; I had their number.” Empowering patients with direct access to pharmacists versus a model where all the pharmacist’s recommendation flowed through other health providers was

this changed lives, changed things for patients for the better, and for the physicians and nurses who take care of those patients were compelling to medical providers, coupled with the fact that medication management services saved money, prevented hospitalizations and the associated morbidity and mortality, and improved patient functioning.”

With regard to payment for medication management services, Fairview started first with its own employee population. Interviewees said they tested out payment models for their medication management services. This included the establishment of service billing codes for Fairview’s medication management services prior to the American Medical Association’s medication management services CPT codes being developed. Once those were developed, and MN Medicaid and Medicare Part D began reimbursing for medication management services services, Fairview broadened its reach and expanded to other employers. With strong outcomes data collection and reporting, there



was enough evidence and published literature to show that medication management services improved lives and saved money. This allowed FPS to negotiate medication management services into contracts and be reimbursed for providing for care. This opportunity also gave

further advancing medication management. A recent tipping point in the medication management service's development was the creation of Fairview's Accountable Care Organization (ACO), both with commercial plans and a Medicare Pioneer ACO, and their

This initiative provided an opportunity for Fairview to demonstrate that they could identify high risk patients, provide team-based care, and produce improved outcomes.

the pharmacy team the intelligence needed to learn where to deploy services to drive value for a payer's clientele.

Success followed and was observed by people external to Fairview. As an example, one interviewee described working with a Ph.D. student which provided outside observations of the team, the process, the patients and the results. The interviewee reflected, "I think that [experience with a Ph.D. student] was very impactful and transformative for our group at the time. We had enough years, we had enough experience, and to be able to have our experience published and have created a model that other people valued helped us realize we were a 'best practice.'"

An environment supportive of team-based care at FHS also helped services grow. C-Suite leadership was absolutely clear in a vision that care model innovation was the right thing to do for patients. That support allowed innovation to occur not just at a pharmacy practice level but rather using it to transform its entire primary care model. This system-wide model transformation provided an opportunity to further integrate medication management. It also created a new financial system for physicians where they were less dependent on volume and more compensated for quality,

narrow network offerings between Fairview and a few local payers. The goal was to manage a population and develop an ACO model in a new risk sharing approach. It also demonstrated how Fairview would use its team-based care to do so. This initiative provided an opportunity for Fairview to demonstrate that they could identify high risk patients, provide team-based care, and produce improved outcomes.

TODAY

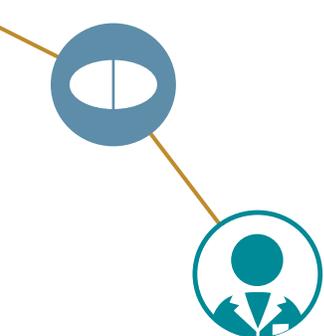
Fairview's work around care model innovation is considered a key component to its success in implementing comprehensive medication management services. A team-based approach to care was and continues to be vital in this process, said one interviewee. They reflected, "We deliver care as a team and when we don't understand that we're a team, it goes poorly. Being explicit about whom teammates are, including the patient, about how we're going to relate together..." This is a tenet that is becoming more deeply embedded in the FHS culture.

Data measurement continues to be an important component of the continuous care model innovation. Interviewees said there is an expectation that clinic managers and medical staff annually receive medication management

Conceptual timeline for the growth of the Fairview medication management program relating to operations, results, and relationships.

FOUNDATIONAL
→ FORMALIZED
→ SUSTAINABLE
→

OPERATIONS	Consistent pharmaceutical care practice model		
	UMN pilot in pharmacies	Moved pharmacists into the clinics	
			Mature collaborative practice agreements
RESULTS	Patient stories		
	Clinic specific data	Pilots for condition specific contracts	Population health
RELATIONSHIPS	Relationship marketing		
	Early clinician adopters	Interprofessional teams	
		Provider champions	Care model innovation



outcomes data for the prior year. Fairview now also has the ability to report trend data. This allows the clinic team to see the medication management contribution to their productivity and outcome goals. While reporting is possible on some metrics that are specific to medication management, some areas, such as diabetes, have medication management contributions embedded in primary care measures and cannot be uniquely separated. However, this is not a significant issue, understanding that Fairview is continuing to focus on team-based care.

Hiring the right people with the right skills and mindset continues to be an area of emphasis for the leadership team. As one interviewee said, “People make it work. We have tremendous practitioners. I’m constantly amazed that we get people who have remarkable commitment and passion. We’ve had practitioners do this for as long as I’ve been here and they are still doing it. They seem to be doing it with the same passion they had fifteen years ago. The culture we’ve created and the environment that we allow people to practice in really is the foundation that allows us to achieve a top level of performance year after year.”

As noted above, as FHS has become more engaged in new payer relationships, comprehensive medication management

services are an important part of any discussion. Medication management services are part of the network product offerings, and the sales team recognizes the service needs to be part of the medical benefit. Pharmacy leadership is at the table when new payer models are being created and contracts are being negotiated, speaking to how well medication management is integrated into the overall care model at Fairview. One interviewee said, “We still don’t have it [medication management services] in all of our commercial contracts, but I think this relationship shows a strong foundation for the ACO work and how the team is working together.” The medical staff and administration (finance and operations) have come to view these services as an integral part of the FHS care model.

Now other organizations recognize and seek FHS and FPS expertise in implementing outcomes-based, comprehensive medication management services. As one interviewee stated, “We receive a lot on inquiries and requests from national organizations because we are seen as experts in this arena—especially how we are working as an ACOs. It is interesting and something I didn’t anticipate.” It is a nice affirmation of FPS’s vision created a decade ago at a retreat to be “nationally recognized for the paradigm shift of pharmacy.”

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Fairview MTM Services Support Accountable Care: [Pharmacy News, Sept. 15, 2012](#)

One Patient's Story: Since 1997, Fairview MTM has helped more than 9,000 people get better control of their health. Here is a [first-hand account of how MTM made a difference in one person's life](#).

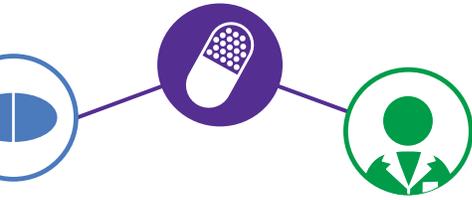
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“Patients will understand what to expect, what is representative of the best quality care, including a team where everybody contributes in a significant way. Patient’s will recognize all of their care experiences positively and personally valuable.”

Culture Generates Strategy

A Case Study of Integrated Medication Management
at HealthPartners



THE BEGINNING

At HealthPartners, culture has long been a key driver of their strategy to develop innovative high quality pharmacy services, including integrated medication management, within the organization. A vision based upon achieving the Triple Aim more than a decade ago, combined with a permissive environment to innovate and dedication to transparent quality measurement has led to integrated comprehensive medication management services providing more than 7,000 annual encounters.

A culture and philosophy of team-based care at HealthPartners attracted care providers who had a vision to work together to improve quality. Many physicians who became leaders at HealthPartners had experience working with pharmacists as a part of the health care team in the hospital environment. Physicians could tap into the pharmacist's deep expertise in medications to help achieve their patient treatment objectives. Both medical and pharmacy staff found this clinical experience to be important and rewarding. With the experience came more requests and welcoming

“If you have a patient on 12 different medications, even though they may be medically stable, it doesn't mean you're getting the best out of those medications or that the blend or mix is the right one.”

of pharmacists as team members. One of the interviewees referred to the experience with having pharmacists as part of the health care team in the acute care setting as an important precursor to their addition to the team in the primary care setting, stating, “There was nothing about the complexity of the hospital environment that was different in the ambulatory environment. We may think it's less intense; we may think it's less complicated,



www.healthpartners.com

Integrated health care organization providing care, insurance, research and education.

Medication Management within HealthPartners

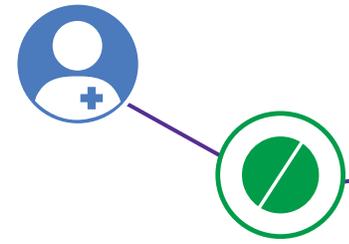
- Program created in 2006
- 8 clinical pharmacist FTEs
- 16 clinics with medication management services
- 7000 annual medication management encounters
- Collaborative practice agreements
 - Asthma
 - Benzodiazepine taper
 - Cholesterol
 - COPD
 - Diabetes
 - Dyslipidemia
 - Hypertension
 - Opioid taper
 - Smoking cessation
 - Therapeutic interchange

but it isn't. If you have a patient on 12 different medications, even though they may be medically stable, it doesn't mean you're getting the best out of those medications or that the blend or mix is the right one.”

HealthPartners was a leader in HEDIS quality measures and medical leadership quickly recognized the value of pharmacists in helping

to manage quality measures. To improve diabetes and cholesterol management, physicians began to ask pharmacists to assist with patient management which soon led to the development of collaborative practice agreements. More than a decade ago, collaborative practice agreements were initiated for cholesterol management within HealthPartners's clinics, creating the basis for the first formalized medication management in the organization.

When new medical providers were brought into the organization, they learned quickly what a pharmacist added to the care team because everyone in the clinic had experienced it.



Interviewees frequently referred to a set of cultural norms that encourage innovative ideas like medication management to be tested. This included a focus on transparency in measuring and communicating results of new initiatives. Medical staff could see early indicators of how the engaging the medication management program within their practice was improving care. These early successes supported growth and expansion. In addition to improvements in quality, medical staff acknowledged a sense of enhanced professional satisfaction as a function of the program, which generated an eagerness to explore additional areas for quality improvement through the medication management program.

Ultimately, interviewees stated that a key factor for success was the open and collaborative environment cultivated within HealthPartners, which served as a foundation for the pharmacy department to pursue additional opportunities in which it could help drive performance within the organization.

BEYOND LIPIDS

The strong relationship that developed between medical and pharmacy leadership played an important role when the Medicare Part D drug benefit was created in 2006. HealthPartners used their collaborative dyslipidemia management program as the foundation for their Medicare Part D Medication Therapy Management program.

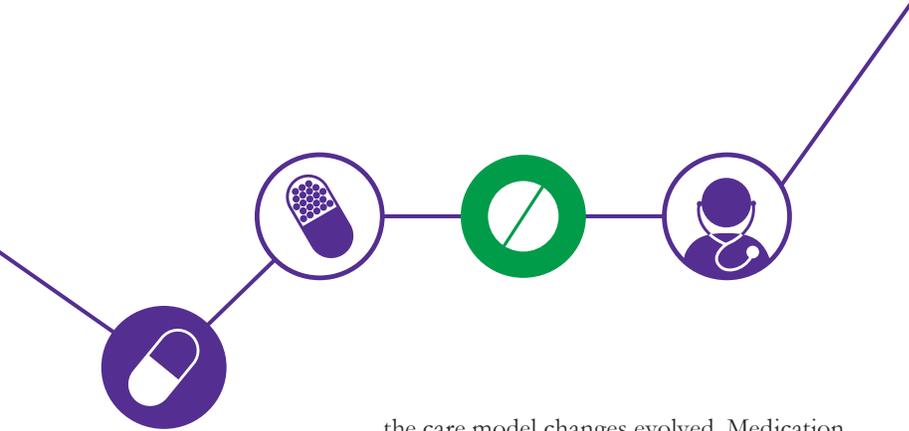
To move beyond the centralized medication management function and become integrated into the clinic care model process, the medication management program manager worked closely with medical leadership to determine how pharmacists could be integrated into the medical team structure. An important decision emanating from these discussions

was that the medication management program expansion would be focused in clinics deemed most likely to support innovative care model process development. An attribute of these clinics was the presence of a strong manager and team within the clinics working towards the same outcomes.

Solid organizational leadership support allowed the teams to build a role for pharmacists into the care model process. Shared accountability and team expectations helped elevate the service provision. Physicians were deeply involved in the development of expanded collaborative practice agreements. When new medical providers were brought into the organization, they learned quickly what a pharmacist added to the care team because everyone in the clinic had experienced it. It became clear that there was an unmet need with respect to quality and patient experience and the expansion process rolled out in a way that allowed team members to immediately see the value of a comprehensive evaluation of medication needs in complex patients.

GROWTH AND EVOLUTION

Developing systems that supported integrated medication management were crucial to the program's success. HealthPartners wanted to make it easy for medical providers to initiate the medication management consult—a goal was that it would be easier to engage the service than not use it. It was recognized that physicians may have a positive view of a service, but because they are juggling many things each day, the process to engage in the service must be simple to be utilized to its potential. Leadership helped prepare practice sites for success by strategically selecting the certain practitioners based on experience and attitude, placing them in roles that would rely on their skills, and then supporting their efforts as



“For the first time in my life someone sat down and paid attention.”

the care model changes evolved. Medication management services advanced quickly and consistently in the organization in part because of the comprehensive approach that included defining electronic medical record documentation expectations, patient referral procedures, and communication systems that supported collaboration within the team.

HealthPartners employs a naming system in which care model process development is “versioned” to keep track of improvements. Changes to the process are supported with training that spans front desk staff to physicians. The entire team is engaged and has a shared vision for what is desired. An interviewee indicated that this comprehensive approach to process improvement that includes all elements of clinic operations was and continues to be a significant contributor to the success in integrating medication management services.

Another key driver for growth has been HealthPartners’ focus on clinical quality

vision for market expectations stating that, “patients will understand what to expect, what is representative of the best quality care, including a team where everybody contributes in a significant way and where the patient’s experience is positive in every one of those interactions, and where they recognize value.” Interviewees were unanimous in their belief that across the organization, it is believed that medication management services are a critical component in realizing this vision.

For this reason, capturing patient satisfaction data has been an important part of the quality measurement for medication management services. HealthPartners conducted patient surveys early in service development and recognized very positive results. During the interviews, team members easily recalled memorable quotes from patients, like, “For the first time in my life someone sat down and paid attention.” Interviewees indicated that there were many comments about the perceived value from the medication management visit,

HealthPartners wanted to make it easy for medical providers to initiate the medication management consult—a goal was that it would be easier to engage the service than not use it.

measurement. Opportunities have come as a consequence of both public reporting of clinical performance on diabetes, blood pressure control, cardiovascular disease and internal reporting on which teams are performing best. According to interviewees, having rigorous data, confidently reported and published, has supported internal acceptance and expansion. They indicated it has also created market and patient expectations. One interviewee described HealthPartners’

the importance of having someone paying attention to medications and getting new information. Patient satisfaction results were a big influence on service expansion.

Quality service measurement and data collection began with documenting drug therapy problems and patient satisfaction, followed by clinical measures, and finally cost. Interviewees indicated that their measurement strategy evolved “from the easiest metrics to



The team worked to demonstrate lower total cost for those patients receiving medication management services, which then made a powerful case for service growth.



get at” to then moving to more difficult metrics to manage. Ultimately, the team worked to demonstrate lower total cost for those patients receiving medication management services, which then made a powerful case for service growth. Subsequent collaborative practice agreements covering more conditions were developed providing pharmacists with more flexibility and less administrative burdens, and continuing the momentum for expansion. Further, the medication management team engaged people with expertise in centralized disease and case management processes to coordinate referrals since they both were working with complex patients.

While HealthPartners was evolving its care delivery system, the health plan side of the organization was beginning to focus on Medicare Part D and its overall goals as a payer that serves many beneficiaries that do not receive care via HealthPartners clinics and hospitals. The medication management

In these cases, medication management has achieved lower downstream costs via improved disease control that results in reduced ER or hospital use.

team started working with the organization’s provider contracting division to extend the reach of medication management services beyond HealthPartners’ own primary care and specialty clinics to beneficiaries who choose to receive care from health care organizations contracted with, but not owned by HealthPartners. They engaged with community-based physicians and pharmacists sharing models, ideas, and evidence about their impact on outcomes.

FOCUS ON RESULTS

Interviewees spoke frequently about how HealthPartners’ role as both a health plan and care provider has allowed them to comprehensively evaluate medication management services across their membership. It has allowed staff, sometimes in partnership with the HealthPartners’ Institute for Education and Research, to evaluate programs, comparing outcomes between health plan members receiving and not receiving medication management services. Interviewees highlighted how HealthPartners’ measurement system has allowed them to identify examples where medication management services has resulted in an increase in the cost of drugs but resulted in a decrease in the total cost of care. In these cases, medication management has achieved lower downstream costs via improved disease control that results in reduced ER or hospital use.

In one example, an analysis showed an 11:1 return on investment when annualized savings were compared to fully loaded program expenses (including indirect expenses at 60%) for a population of fully-insured patients receiving medication management services compared to a matched self-insured group of patients with no access to medication management services (n=374 each group). There was no difference in pharmacy costs for the groups but there was cost-savings in reduced hospitalizations and emergency department visits.

Another analysis focused on services delivered to patients with diabetes evaluated outcomes over a five-year period among patients receiving comprehensive medication management services (n=296) compared to a control group receiving care without the service (n=370). There was a 20% increase in optimal

“The only complaint is that we don’t have enough [presence of the service]; there’s such value.”



diabetes control with 78 fewer emergency room visits and 36 fewer hospitalizations in the intervention group. Cost avoidance was approximately \$392,000.

Finally, a HealthPartners study comparing home blood pressure monitoring and pharmacist case management to usual care showed significantly improved outcomes in the intervention group. The study, published in JAMA in July 2013, was a cluster randomized trial in 450 adults with uncontrolled blood pressure across 16 HealthPartners primary care clinics with n=222 receiving usual care in 8 clinics and n=228 patients receiving home blood pressure monitors and transmitting data to pharmacists who adjusted antihypertension therapy accordingly. The primary outcome measure was control of systolic blood pressure at 6 and 12 months. Secondary outcomes were change in blood pressure, patient satisfaction and blood pressure control at 18 months. The proportion of patients with blood pressure control at 6 and 12 months was significantly greater ($p < .001$) in the telemonitoring group compared to the control group. Additionally, systolic BP decreased more from baseline among patients in the telemonitoring intervention group at 6 months (-10.7mmHg [95%CI, -14.3 to -7.3mmHg]; $P < .001$), at 12 months (-9.7mmHg [95%CI, -13.4 to -6.0mmHg]; $P < .001$), and at 18 months (-6.6mmHg [95%CI, -10.7 to -2.5mmHg]; $P = .004$). The satisfaction component showed that 98.5% of patients would be willing to recommend the service to friends/family. Further, 87.7% were satisfied or very satisfied with the review having a positive effect (e.g., fewer medication side effects, more effective dosages, better understanding of medications.)

HealthPartners’ performance nationally and in their marketplace has been compelling, and the organization’s leadership reports that

medication management services have been a critical contributor to the improvements recognized in performance improvement.

TODAY

Interviewees indicate that HealthPartners executive leadership has frequently and publicly communicated excitement and pride about the work of the medication management team, providing validation and motivation to continue to innovate. They cite organizational culture at HealthPartners as making it an attractive organization for those who want to be on the leading edge of health care payment and delivery. This foundation and support of leadership at all levels of the organization has allowed medication management to be seen as an important element of achieving the Triple Aim. HealthPartners is focused on the best experience, at the best price and with the best outcomes. As one medical leader noted about medication management services at HealthPartners, “The only complaint is that we don’t have enough; there’s such value.”

Interviewees indicate that the advent of CMS STAR measures and Minnesota Community Measurement (a state-level mandatory health quality reporting entity) are now driving how the medication management program is evolving. HealthPartners staff has also become involved in the Pharmacy Quality Alliance (PQA). HealthPartners wants to share its years of experience in medication management service development and aligned measurement strategies. Interviewees indicate that HealthPartners’ CEO recently challenged the team to be recognized as the best in the nation in optimizing the use of medications for the benefit of their members and patients. This focus on optimizing medication use is the guiding theme for medication management

Conceptual timeline for the growth of the HealthPartners medication management program relating to culture, performance rating, and operations.

FOUNDATIONAL → FORMALIZED → SUSTAINABLE →

CULTURE	Vision of a set of services using clinical expertise to achieve the Triple Aim		
	Permissive environment to innovate		
			Transparency of quality
PERFORMANCE RATING	HEDIS measures	Medicare Part D	MN Community Measurement
OPERATIONS	Care Model Process		
	Dyslipidemia collaborative practice agreement	Formalized medication management in clinic	
			Mature collaborative practice agreements and consistent practice



services today and HealthPartners is committed to achieving this in a way that is responsive to the needs of the greater community it serves. As an example, HealthPartners is working with employer clients in one rural Minnesota community to integrate its services with the community’s hospital, primary care practice and existing community pharmacy so all are viable, important parts of service delivery.

The team says “it’s really fun work” with “lots of opportunity” to create “high-bar performance” in multiple, different environments weaving in best practices. It represents the next step of HealthPartners journey to continue implementing leading pharmacy services that are recognized and valued.

As one team member reflected on the journey, they stated, “I remember walking in here in my first week (4 years ago)...I could not believe going into a meeting where there wasn’t a healthcare provider present in the room, and everyone knew what medication management was and knew what it was really well. Not just that it’s medication management; they understood. It was amazing to me to see that. That wasn’t my experience prior to being here. Pharmacists, our small little group knew what we were talking about, but nobody else did.”

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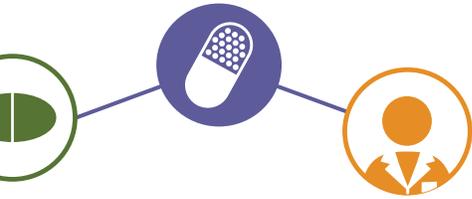
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“As an organization, we move via pilots and the truth – our medication management pilots have established a truth that this service is important to the organization achieving its goals.”

Improving Patient Safety and Quality

A Case Study of Integrated Medication Management
at Hennepin County Medical Center



www.hcmc.org

Disproportionate share/safety net integrated health system.

- 100,000 patients in the health system

Medication Management within HCMC

- Coordinated program across service lines started in 2006
 - Oncology pharmacist started in 1998
 - HIV pharmacist started in 2000
 - Transplant clinic medication management services started in 2002
- 12 clinical pharmacist FTEs
- 14 clinics with medication management services
- 10,000 annual medication management services encounters
- Collaborative practice agreements
 - Anticoagulation
 - Asthma
 - Diabetes
 - Dyslipidemia
 - Hypertension
 - Medication Refills
 - Oncology
 - Smoking cessation
 - Transplant

THE BEGINNING

A commitment to improving patient safety and quality was and continues to be the driving force behind Hennepin County Medical Center's (HCMC) implementation of comprehensive medication management services. What began as an Edward Deming team-based quality improvement project in the mid 1990's has become an integrated and valued service that spans inpatient and outpatient settings with 10,000 patient encounters annually.

Today, program leaders point to a pilot project to improve medication refill management in an internal medicine clinic as the beginning of HCMC's journey to comprehensive medication management services. A team of medical, nursing, pharmacy and clinic management staff identified important safety issues with medication refills within the medicine clinic. "We didn't know what medications patients were on. It was the gorilla in the barn. Everything was about these medications; there were a lot of poly-pharmacy and medication adherence issues. It was obvious we needed help managing medications," noted one medical staff member.

With C-suite support, the leadership team brought the departments together, broke

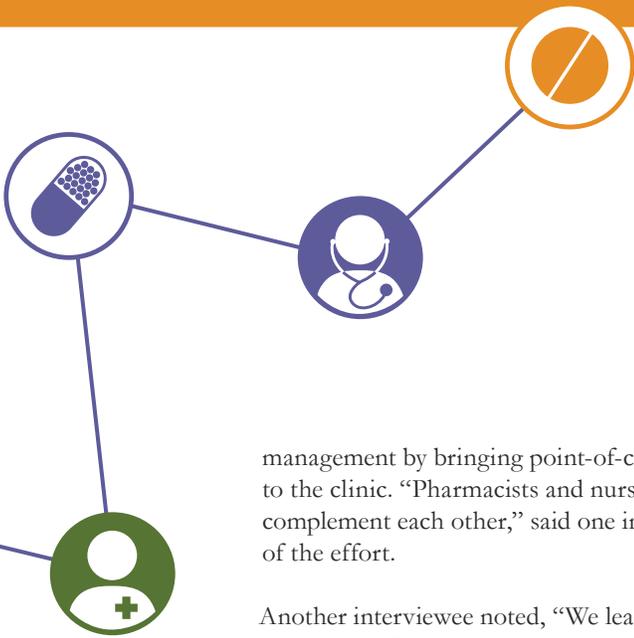
the top of their training," remembered one interviewee.

The team was able to lay the groundwork so medication management services could expand to the organization's anticoagulation

"We didn't know what medications patients were on. It was the gorilla in the barn...It was obvious we needed help managing medications."

down silos, shared their areas of expertise and explored ways to use this expertise to improve medication use and safety. "The team came together for a common cause and they were really passionate about the effort and wanting to work with each other, striving to practice at

clinic. A sentinel medication event that occurred in a patient during their transition from inpatient to outpatient care also served as a catalyst to improve the clinic's quality. Pharmacy and nursing staff teamed up to take a more proactive approach to anticoagulation



management by bringing point-of-care testing to the clinic. “Pharmacists and nurses really complement each other,” said one interviewee of the effort.

Another interviewee noted, “We learn a lot from pilots. Sometimes they stick. Sometimes they don’t. The medicine clinic is a great example where we piloted a program and the team members said, “I want more!””

BEYOND THE FIRST PILOTS

Beyond the medicine and anticoagulation clinics, proactively seeking grant support allowed HCMC to place pharmacists in the HIV specialty clinic. One interviewee noted that the importance of medication adherence was a key factor. “HIV research shows

During these pilot programs, several infrastructure issues had to be tackled and in some cases, they continue to evolve. First, the medical and pharmacy information systems had to be integrated in order to give the medical staff an accurate view into the patient’s medication profile. A precursor to today’s information technology integration was the creation of a “toggle” to bridge the two systems. Another challenge was working with the Office of the Medical Director (OMD) to credential the pharmacists who were providing the medication management services. “Getting universal provider numbers (UPN—the predecessor to today’s national provider identifier or NPI) for the pharmacists was a hurdle,” noted one interviewee. Upon reflection, the team wished they had brought in representatives from the OMD earlier in the service development process. Similarly,

Pharmacists were embedded in the clinic allowing development of relationships with medical staff and the financial advocates who ensured each patient’s medications were covered by insurance.

compliance rates need to be 85%—that’s very high.” By putting pharmacists in the clinics and also opening a satellite pharmacy to provide medications, medical providers were given accurate information and feedback on their patient’s medication therapy that had been absent before. “Having the satellite pharmacy was a key to service growth,” noted interviewees. Because of it, pharmacists were embedded in the clinic allowing development of relationships with medical staff and the financial advocates who ensured each patient’s medications were covered by insurance.

Soon after, pharmacists were also placed in the cancer center and transplant programs as well.

interviewees also said they wished they had brought representatives from the billing area into the pilot projects. “Billing and coding for services has been and continues to be an evolving challenge,” stated one interviewee. Clarification about how to bill medication management services through AMA CPT codes was sought through CMS and it allowed the team to adjust their practices accordingly.

In spite of early success, financial pressures forced a decision to discontinue pharmacist-provided medication management services in the medicine clinic around 2000. Involvement in the cancer, HIV and transplant areas continued, however.

“The pharmacists are always professional. They are here and want to be part of the team. They want to help.”

GROWTH AND EVOLUTION

In 2006, efforts to reestablish medication management services in the internal medicine clinic began. A precipitating factor was the organization’s incoming critical care pharmacy resident who had a strong interest in ambulatory care. The resident expressed a desire to focus some of her time on reestablishing medication management services in the internal medicine clinic. In addition, new pharmacy leadership joined HCMC, which added a strong administrative champion for the efforts. Also, the Medicare Part D program’s medication management services regulations had been established at this time, further supporting the service’s reestablishment.

“We began by targeting patients who were on eight or more medicines,” said an interviewee. “That turned out to be nearly every patient in the clinic. So we had to increase the target to patients on 10 medicines, then finally those on 15 medicines.” Relationships developed between the pharmacists and medical residents,

a pharmacist? You should get a pharmacist.” When medical residents moved between various clinics and departments within the system, they began to ask, “Why can’t we have a pharmacist here?”

“Being present and integrated into the team really grew the services,” reflected one interviewee. “It builds camaraderie as a professional which is really important.” The quality and consistency of the pharmacist-provided services also contributed to their growth. Medical staff routinely request curbside consults. Interviewees all agreed that having the right people is key. A medical staff member offered, “The pharmacists are always professional. They are here and want to be part of the team. They want to help.” Another said, “I’ve seen five pharmacists now in my time at the clinic and there has never been one who is lackadaisical about their job. Building trust with them is very easy because they do not let things fall down.” Hiring the right pharmacists is an important part of the HCMC pharmacy leadership team’s culture. “We are particular

“Being present and integrated into the team really grew the services. It builds camaraderie as a professional which is really important.”

spurred by the face-to-face and word-of-mouth exchange of information. Medical residents learned quickly they could request a pharmacist referral and receive consistent follow up, which added momentum for the service. So did conversations among medical residents in the staff dining room. One interviewee reflected on a conversation during which one medical resident shared with another some difficulty they were having with a patient. The response was, “I have a pharmacist, why don’t you have

about who we hire,” said one team member. They recalled a departmental job posting that had more than 20 applicants. None of the applicants were hired because they were not considered to be “the right fit” for the team they were building in the department.

Another factor that positioned medication management services for growth in the organization was measuring impact and return on investment. HCMC’s culture is data-driven.



“That means the success in the HIV clinic alone may have saved nearly \$100 million dollars.”

In 2008, the pharmacy leadership created a system to measure the number of medication management visits. That year, the number of patient visits to the service grew to about 100 per month. By the fourth quarter of 2013, it had reached nearly 1,000 per month. Interviewees said patients are very satisfied with the service. One stated, “Patients love their time with the pharmacist.”

Examples of other positive metrics come from the cancer center, discharge clinic and HIV services. In the cancer clinic, the pharmacist works proactively with the patient financial advocate to ensure that the appropriate prior authorizations for treatment are secured and the patient’s treatment will be reimbursed. “In 10 months, the pharmacist was able to document \$777,000-\$1 million in recouped reimbursements,” said one interviewee. Clinical metrics have been equally impressive.

Since the beginning of medication management services in the clinic, of 100 HIV-positive mothers who gave birth, only one baby was born with HIV and that mother had not been treated prior to her admission for delivery. Because data suggest that it costs approximately \$1 million to treat an HIV-infected individual

discharge. The staff indicates that this has led to reductions in hospitalizations and emergency room visits. Recognition of this impact on care became more important when the Minnesota Care Program (a component of Minnesota Medicaid) was transitioned to the “Coordinated Care Delivery System” with limited finances dedicated to indigent care. “It forced our organization to think differently,” said one interviewee, reflecting on how previous quality measures influenced how the service was viewed when resources became more scarce.

As one interviewee said, “It was very important to show the line between what they [the pharmacists] did and a direct improvement in the patient’s overall health outcome.”

TODAY

HCMC’s goals with respect to medication management remain focused on improving patient safety and quality. Areas for service growth and expansion include congestive heart failure, pain management, transitions of care, homeless care and senior care. The senior care effort is an example of how the pharmacy team has proven its value. Medical leadership staff

Areas for service growth and expansion include congestive heart failure, pain management, transitions of care, homeless care and senior care.

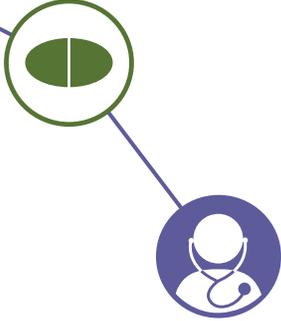
during their lifetime, one interviewee points out, “That means the success in the HIV clinic alone may have saved nearly \$100 million dollars.”

More recently, pharmacists have been deployed to provide medication management services during the acute care discharge process with patient follow up three to seven days post-

came to the pharmacy leadership and expressed interest in having a pharmacist providing medication management services in the Senior Care clinic. As a sign of their commitment to the service, the clinic allocated funding in its own budget to pay for a portion of the pharmacist’s salary. “That was saying, ‘We value this. We are willing to pay for this.’” said one interviewee.

Conceptual timeline for the growth of the HCMC medication management program relating to culture, relationships, operations, and results.

	FOUNDATIONAL	FORMALIZED	SUSTAINABLE
CULTURE	Innovation to promote patient safety and quality		
	Pilot for best practices		
	Collegiality among health care team members		
RELATIONSHIPS	Breaking down silos	Interdepartmental requests and shared resourcing	
	Existing relationships with pharmacists		
OPERATIONS	Hiring the right pharmacists		
	Medication refill & Anticoagulation pilots	Medicine Clinic residency project	Expand throughout health system
	Pharmacists in oncology and HIV clinics		
	Transplant clinic based medication management		
RESULTS	Proactive evaluation by pharmacy		Decreased hospitalizations
	Pilot evaluations	Evaluation of ROI	Total cost of care



The pharmacy leadership team says it will remain committed to reviewing medication use, improving it and showing how medication management services can save money. An example was changing the organization’s diabetes care model from inpatient to outpatient, with education and medication management which are more effective in this setting. Pilots will also continue because they help build momentum through achieving short-term goals. “The long-term goals are always out there, but sometimes the short-term goals become a little more important because those are the ones that help you take the next step and eventually get to the long term goal.” said one pharmacist.

Today, pharmacists providing comprehensive medication management services are a collegial, collaborative group that work together as a team and are committed to providing excellent internal customer service. As one interviewee reflected on the group’s journey, “People were

really passionate and wanted to work together. And, we had fun. It was actually fun working together and we still have fun.” Another notes, “As an organization, we move via pilots and the truth – our medication management pilots have established a truth that this service is important to the organization achieving its goals.”

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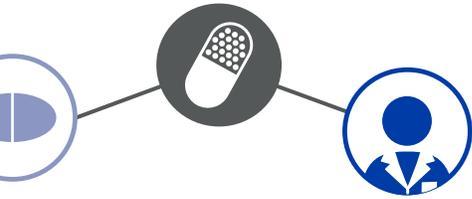
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“I think the most important strategy was hiring a pharmacist leader to sell, manage, nurture and grow the practice.”

Communication Strategies Build Momentum

A Case Study of Integrated Medication Management at Mayo Clinic



THE BEGINNING

Mayo Clinic's road to comprehensive medication management services had humble beginnings in an ambulatory anticoagulation clinic around 1990. While the pharmacist-provided services were greatly valued in the clinic, they were not integral to its operation. The path to more consistent integration was established later in the decade through placement of pharmacists in selected specialty clinics where medication use was highly critical to clinical success, such as HIV clinic. Pharmacy leadership was committed to expanding ambulatory care practice in the system and provided funding so a pharmacist could provide medication management services in Mayo Kasson Clinic which also trains family medicine residents. Today, comprehensive medication management services are provided

“Over time, it was no longer a luxury if the pharmacist was at the clinic that week. It was an expectation...”

by nearly 18 FTE pharmacists guided by extensive collaborative practice agreements in a variety of areas.

According to interviewees, the Kasson Clinic provided the foundation for expansion of medication management services in primary care. “We had a single pharmacist practicing with primary care providers in the family medicine residency program.” recalled one interviewee. The pharmacist was at the clinic every day, accountable for providing consistent patient care services. The Medical Director and the Residency Director were both very supportive of the service, viewing it as a teaching component of the residency. As one reflected, “Over time, it was no longer a luxury

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Integrated Health System

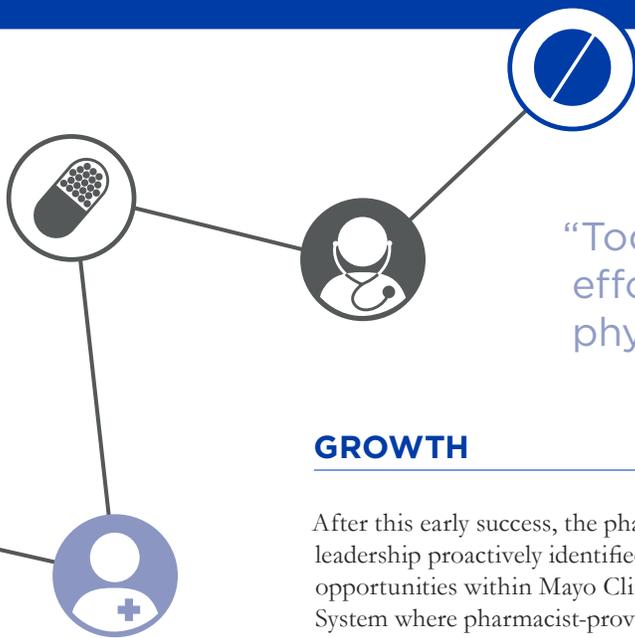
- 1,165,000 patients served in 2012

Medication Management within Mayo Clinic

- Program created in 2003
- 17.15 clinical pharmacist FTEs
- 8 clinics with medication management services
- 7,300 annual medication management encounters
- Collaborative practice agreements
 - Anticoagulation
 - Dyslipidemia
 - ID/HIV
 - Primary Care, broad-based protocol

if the pharmacist was at the clinic that week. It was an expectation that we need a pharmacist here because we had defined roles and defined responsibilities.” This led to changes in the organization chart that reflected the pharmacist as an integrated member of the health-care team providing services at the clinic. Pharmacists were formally recognized in the structure of the clinic's team with other critical team members such as nursing, scheduling, operations and primary care physicians.

Pharmacy residents, guided by mentors, were critical players in inspiring new ideas and practice experimentation. For example, one PGY-1 ambulatory care resident developed pharmacist services in cardiac rehab and cardiovascular health clinic. As part of completion of a non-traditional PharmD degree another pharmacist initiated services in a geriatrics clinic and the dialysis center. “This allowed us to grow and experiment beyond the clinical staffing we already had in place,” recalled one interviewee. Fortifying pharmacy residency education was a driver in service expansion at the time, more so than a business plan or strategy, noted interviewees.



“Today, because of these communication efforts, the service is sold physician to physician, and patient to patient.”

GROWTH

After this early success, the pharmacy leadership proactively identified other opportunities within Mayo Clinic Health System where pharmacist-provided medication management services would bring value and be well-received by the medical staff. “When we look at the number of pharmacist FTEs compared to the 2,200-2,500 physicians we have in our system, clearly not every patient seen by a physician can be seen by a pharmacist,” said one interviewee. Patients with polypharmacy taking high-risk, chronic medications were targeted. So were international clients because many of the medications they were taking were not available in the United States. These medications are not screened for drug-drug interactions in the electronic medical record and language barriers make taking a complete medication history more complicated. Pharmacists are able to collect medication information and assess for

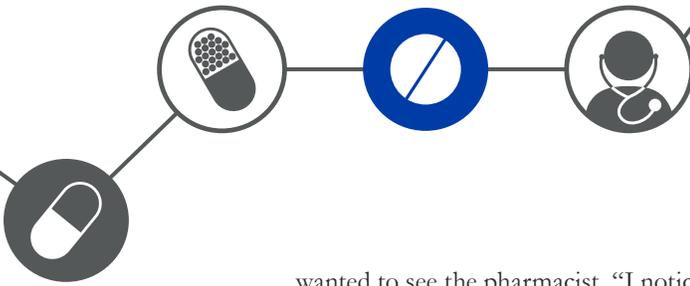
“Having pharmacists involved in primary care made great sense because many of our primary care patients are Mayo Clinic Health Plan members.”

indication, dose and medication safety for these patients, as well as prevent possible duplication of therapy from multiple medications from the same class being prescribed.

“Having pharmacists involved in primary care made great sense because many of our primary care patients are Mayo Clinic Health Plan members,” said one interviewee. Mayo Clinic is the largest employer in the region so many primary care patients are also our coworkers or retirees. In 2007 medication management

services were added to the clinic’s primary care practice. According to one interviewee, “For every dollar we save for primary care patients, much will be returned to Mayo Clinic.” This was highlighted in study conducted by Mayo Clinic pharmacists in 2009. They conducted an IRB-approved study of Mayo Health Plan members to determine the value of medication management services. The positive results demonstrated by this study provided traction and a powerful tool to promote the medication management service within Mayo Clinic Health system.

Promoting the service was a big part of the pharmacy leadership’s focus, according to interviewees. In 2002, a dedicated pharmacist leader was hired to develop, manage, nurture and grow the practice. The benefits of medication management was communicated via a mass exposure strategy throughout Mayo Clinic, including presentations to committees, involvement in quality improvement and research initiatives, exposure on the Mayo Clinic website and direct communication to employees, patients and beneficiaries (through a weekly e-newsletter and direct mailings). Interviewees noted that one of the most effective strategies was development of a medication management video presented by a former local news anchor as part of a Mayo Clinic production called “Medical Edge.” Information about medication management and the referral process for patients to access services was incorporated into Mayo Clinic’s intranet. “Today, because of these communication efforts, the service is sold physician to physician, and patient to patient,” said one interviewee. Another told a story about a patient who came in requesting a visit because of a letter about the service they received in the mail the year before. The patient explained s/he did not feel they had issues warranting a visit when they received the letter, but their health situation had changed and they



wanted to see the pharmacist. “I notice one medication management referral begets more from the same medical staff,” said another.

Metrics also played a role in service expansion said interviewees. “We were fortunate to have benchmarking of the service to compare new services against. For the first six, seven, eight practices we built, we compared them against our own historical data to make sure we were on target with them. Many of them [new medication management initiatives] were very metric driven,” said one interviewee. In some areas, such as dialysis and hepatic encephalopathy, clinic and leadership champions brought pharmacists to the team to help create strategies to improve quality while lowering costs. “Through experiments

and aligned with the inpatient pharmacy team, which allowed further clinical focus and financial stability.

EVOLUTION

As medication management services continued to evolve, so did the care process. “Initially we thought it was all about 60-minute comprehensive medication reviews. Then you look at the pharmacist who is providing services in a clinic that has six floors, and you have to ask ‘How many patients can the pharmacist touch if they are spending 60-minutes with each one?’” said one interviewee. As a result, a more population-based approach is now being developed,

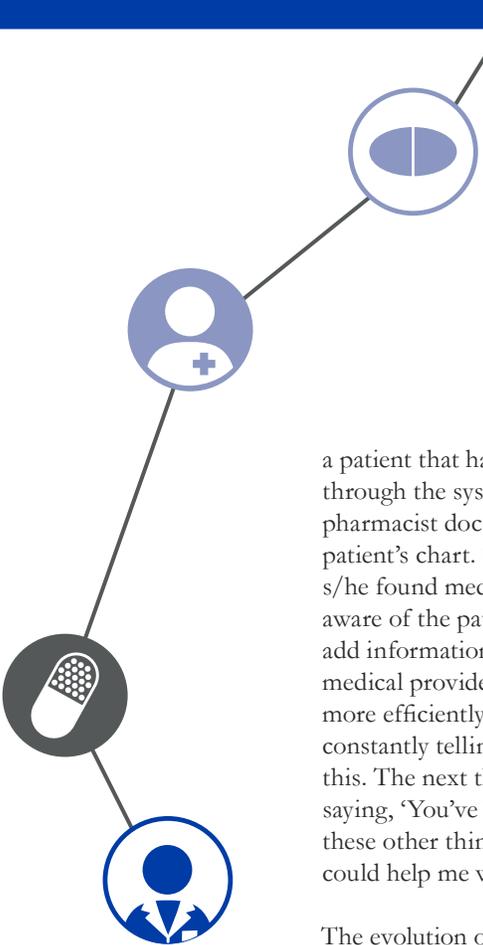
“Through experiments and investigation of the pharmacist impact on hospital readmissions, patient satisfaction and other variables the service became a best practice, which spread across the enterprise.”

and investigation of the pharmacist impact on hospital readmissions, patient satisfaction and other variables the service became a best practice, which spread across the enterprise,” reflected an interviewee.

In addition to a multi-layered communications strategy and metrics, the advent of the Medicare Part D medication management services program and payment for medication management services from Minnesota Medicaid catalyzed the service’s growth. “We now had temporary CPT billing codes and people became aware of medication management services. That’s when things started to come together very quickly,” reflected one interviewee. Additionally, the medication management team was reorganized

identifying which patients need a high-touch pharmacist service and those who may need less intense medication management services. “We are proactively identifying patients where we anticipate our contribution to care will show a short-term improvement or avoid a negative outcome,” said one interviewee.

In addition, the pharmacist clinic schedule has been adjusted to include more half days among a larger number of clinics. During these scheduled times, the pharmacist is providing more than medication management services. Sometimes the pharmacist serve as a general resource for the medical and clinic staff, providing curbside consultations. Other times, the pharmacist are conducting electronic consults with a physician or interacting with



“You add information to the message that helps the medical provider answer the patient’s question more efficiently. It’s huge.”

a patient that has submitted a health concern through the system’s online portal. The pharmacist documents the consult in the patient’s chart. One pharmacist said s/he found medical providers were often not aware of the patient’s concern or issue. “You add information to the message that helps the medical provider answer the patient’s question more efficiently. It’s huge. The medical staff is constantly telling me how much they appreciate this. The next thing I know, that provider is saying, ‘You’ve been really helpful to me with these other things. I was wondering if you could help me with this question too.’”

The evolution of the health care system toward a value-based payment model is motivating medical staff to engage other team members, including pharmacists, to help drive quality improvement and efficiency in care. This need for improving outcomes and lowering costs drove the system’s administration to expand medication management services to its Mankato location. “Administration was exploring how to change the practice model for delivering primary care based on positive experiences in Rochester,” noted one interviewee. Since the service is new, the pharmacist provider is building awareness among the clinic staff through similar communications strategies used earlier in the program’s development, such as presentations at provider meetings that create personal relationships with staff highlight positive patient stories, said interviewees.

TODAY

Data on medication management services and the number of patients “touched” by the pharmacist are tracked through a custom resource management system. Interviewees report that patient visits are tracked, as are those patients impacted through care

coordination, health care team “huddles,” patient care rounds and the messaging service. “For every face to face patient visit pharmacists have in primary care, they have two additional patient “touches” through these other means,” said one interviewee. So a day with only two or three visits scheduled may still result in six to ten patients being helped by the pharmacist. Interviewees say the system has helped them measure the breadth of the medication management service’s impact in patient care. “Decision support and population management tools are guiding us,” said one interviewee.

It has also spurred further integration of medication management services in care coordination. High-tier patients are identified for a more systematic care plan with a team of physicians, nurses and pharmacists. It took almost a year to get the service implemented and required a solid sell at the organization’s Practice Committee. As one pharmacy leadership team member said, “I went through all the numbers and medication-therapy related problems—all the data—and showed the administration specific case examples of the value of medication management services. The case examples seem to make the greatest difference.”

Interviewees say that mass awareness and education still play powerful roles in expanding the medication management services. “The more you can do, the more targeted fashion, the better. But then, word of mouth patient-to-patient and physician-to-physician, that builds the practice more than any slideshow we can do,” stated one interviewee. “Making it personal is also key,” said another. “There’s no downside to when a patient visits us. Patients love it and physicians realized they become more efficient because they receive information that wouldn’t otherwise have available.”

“We have built an extremely satisfying and intriguing practice,” said one pharmacist

Conceptual timeline for the growth of the Mayo Clinic medication management program relating to operations, relationships, results, and reimbursement.

FOUNDATIONAL → FORMALIZED → SUSTAINABLE →

OPERATIONS	Pharmacists in anticoagulation and HIV services		
	Consistent pharmaceutical care practice model		Collaborative practice agreements
	Systematic targeting of high-risk patients		
	Administrative champions		
RELATIONSHIPS	Collegiality among health care team members		
	Administrative champions		
RESULTS	Patient stories		
	Collected medication management data		
REIMBURSEMENT	Medicare Part D and MN Medicaid		
	CMS regulation		
	Population management contracts		
	Mayo employee contract		

interviewee. “As an example, for one pharmacist position opening, we had 18 internal applications alone.” The interest reflects the desire for the type of practice that has been created and allows the pharmacy leadership to hire the right people. Once hired, all the pharmacists providing medication management services are required to complete a medication therapy management certificate program within six months. Additionally, pharmacy leadership is working to create greater standardization within the service. They are creating training documents, a web-based tool kit with job descriptions, collaborative practice agreements, medication management service white papers, and documentation templates to lead toward more consistent service provision. Pharmacists on the medication management team also serve as peer resources via monthly meetings. “We can share ideas, what’s working, problems. It’s worked out really well,” said one pharmacist. Another interviewee notes, “It’s been a wonderful partnership to share ideas, resources and strategies across our health system sites. Partnering across sites has only strengthened us at an institutional level.”

That has improved Mayo Clinic’s leverage with payers as well, bringing seven sites to the table. External relationships have evolved with the local county as well, allowing the pharmacy team to bring health screenings and medication consults to the county’s work site.

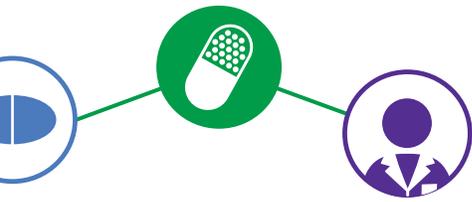
At the end of the day, the comprehensive medication management services are all about outcomes and benefits. One interviewee tells the story of a patient who did not take any medications because of a pharmacogenomics counseling session she received in 2006. It was difficult to get a patient visit scheduled but the desk staff persisted. During the visit, the pharmacist was able to review and fully explain issues to the patient. By the time the visit ended, the patient asked the pharmacist to tell the physician how much s/he appreciated the visit. The pharmacist suggested the patient do so. A week or so later, the physician came to the pharmacist with a card, saying “This was mailed to me but it is for you. It is a thank you note from a patient who would not take any medications and now does. How did you do that?”



“Even before implementation of the service, the groundswell of support was there. But without the right people or without the key positions, it wouldn’t have gone as quickly or as well.”

Building a Web of Influence

A Case Study of Integrated Medication Management
at Park Nicollet Health Services



THE BEGINNING

Recognizing an opportunity to integrate comprehensive medication management services in the institution's emerging healthcare home model, the Park Nicollet Health System pharmacy leadership team leveraged a small grant from the institution's foundation into a program that now is embedded in 14 clinics and generates nearly 5,000 patient encounters annually. The medication management program and its utilization are rapidly growing. Increased pharmacist availability, service locations, and new processes are leading to growth in the number of patients who receive medication management services and the volume of medication related interventions.

The initial ideas for medication management program development evolved when the Park Nicollet Foundation invited the pharmacy leadership team to participate in a meeting with a local senior citizen group exploring innovative ways to provide care to an elderly population. The pharmacy team outlined the

“Year after year we tried to secure resources to expand the service in the outpatient pharmacies, but the detachment from the rest of the care team and limited leadership support were too much to overcome.”

concept of medication management services integrated into the primary care team, creating initial interest on the part of Foundation leaders who suggested that the pharmacy team apply for a grant to begin a service pilot.



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Integrated Health System

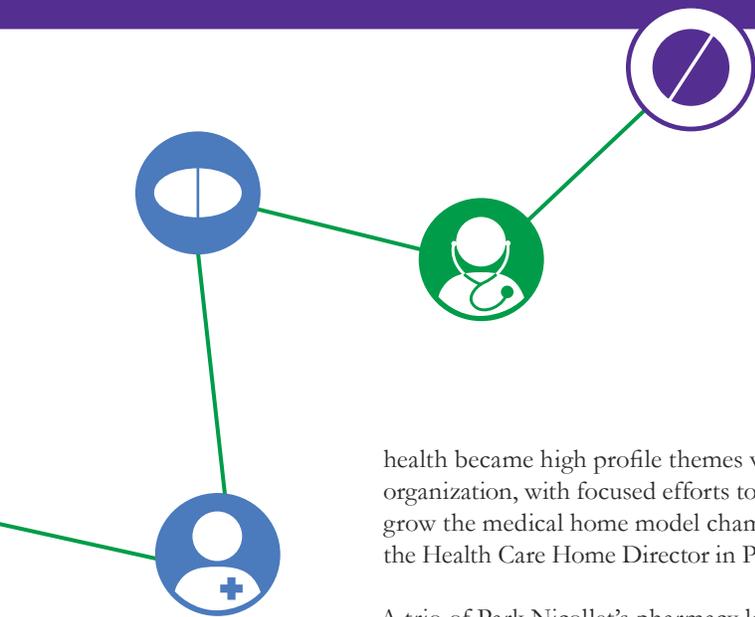
- More than 400,000 patients cared for in 2013
- 21 primary care clinics
- 45 specialties offered

Medication Management within Park Nicollet

- Program created in 2011
- 9.6 clinical pharmacist FTEs
- 14 clinics with medication management services
- 4,634 medication management encounters in 2013
- Collaborative practice agreements
 - Asthma
 - Diabetes
 - Dyslipidemia
 - Hypertension
 - Smoking cessation

Previously the pharmacy leadership team had focused on implementing medication management services within Park Nicollet's outpatient pharmacies. “We focused on the pharmacies because at that time, there was some, albeit very limited, payer compensation for services in that setting,” noted one interviewee. However, the limited compensation opportunities combined in a traditional fee-for-service environment were barriers to the service's growth. “Year after year we tried to secure resources to expand the service in the outpatient pharmacies, but the detachment from the rest of the care team and limited leadership support were too much to overcome.”

At the time, care models that embraced a team-based approach were becoming a focus at Park Nicollet. In the late 2000s, seeds were planted for the emergence of this model through a physician group demonstration project which included defined roles for nursing and certified diabetes educators within a healthcare home design. Care coordination and population



health became high profile themes within the organization, with focused efforts to expand and grow the medical home model championed by the Health Care Home Director in Primary Care.

A trio of Park Nicollet’s pharmacy leaders (inpatient, outpatient and drug utilization pharmacy directors), met with the Health Care Home Director and made a compelling case for including medication management services in the expanding medical home model. “She shared her vision of the model and the forthcoming Park Nicollet pioneer accountable care organization (ACO) and the needs associated with those models,” said one member of the leadership team. “She was concerned about medication access and managing high-risk patients. We explained how we could meet those needs through the medication management service. We highlighted evidence from the literature and also patient success stories from a similar

management services implementation forward. Eventually, working strategically with senior level administrators at Park Nicollet and its foundation, the pharmacy leadership team found that it was establishing a “web of influence” that grew to include the Chief of Primary Care, regional medical directors, clinic-level leaders and the organization’s payer relations group.

“The Park Nicollet Foundation grant, which created a partnership with the University of Minnesota Ambulatory Care Residency Program, made it possible for us to get two residents versus one pharmacist. That was huge from my perspective,” said one interviewee. “Instead of initiating the service in just one clinic, we were able to do so in two sites.” The team’s intent was to have the residents introduce medication management services and create a foundation for service growth. “Then the Health Care Home group’s FTE allowed

“We had this perfect storm of really great leadership: somebody who’s done it and knew what she was doing combined with really great practitioners who needed her leadership and were thrilled when she got here.”

service offered in a different institution.” By showing how medication management aligned with the overall goals of the medical home initiative, the director became a strong advocate for implementing medication management services, and committed funding to support a new pharmacist position to provide the services.

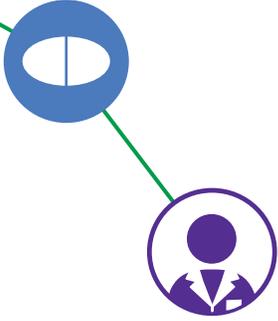
The intersection of the Park Nicollet Foundation grant and healthcare home opportunities provided important synergy and momentum to expand medication

us to hire an experienced pharmacist with leadership skills to lead program development. At that point, we were off and running.”

GROWTH AND EVOLUTION

With a medication management program director in place and support of many Park Nicollet leaders, the groundwork was in place for rapid growth and expansion. “We had this perfect storm of really great leadership: somebody who’s done it and knew what she was

“We noted that other health systems in our market were already ahead of us with respect to medication management and collectively we said ‘Let’s go.’”



doing combined with really great practitioners who needed her leadership and were thrilled when she got here. That pairing is what made this explode the way it did,” reflected one pharmacy team leader. “Even before implementation of the service, the groundswell of support was there. But without the right people or without the key positions, it wouldn’t have gone as quickly or as well.”

A committee was formed to guide service development and implementation. In addition to the pharmacy leadership, the committee included primary care clinic operations and health care home group leadership. While physician staff representatives were not on the initial committee, they were supportive because of the pharmacy team’s earlier one-on-one communications and relationship building. In those communications, the pharmacy team emphasized a service model that integrated the pharmacist into the patient care team. One interviewee noted that this message resonated with the clinicians because it contrasted with the experience they had getting “random” communications from pharmacists outside of the Park Nicollet system.

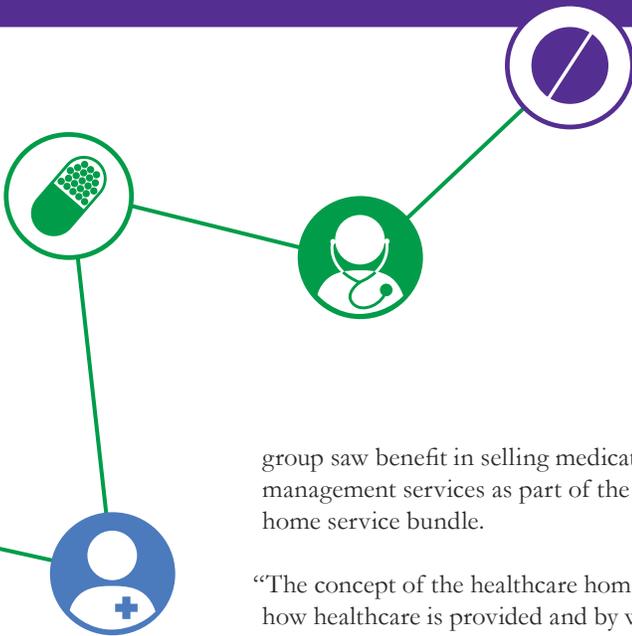
With the initial funding resources in place for the core medication management team, pharmacy leaders expanded their efforts to engage other senior leaders to gain support for ongoing operational costs and additional expansion. “We approached these conversations together, the three different pharmacy leaders [inpatient/outpatient pharmacy operations and the medication management director]. We noted that other health systems in our market were already ahead of us with respect to medication management and collectively we said ‘Let’s go.’ I think that message came through to system leadership, too,” reflected on interviewee.

As the web of influence grew, new advocates emerged. One unexpected advocate was the inpatient nursing director, who understood the service parameters and helped create organizational alignment for the new medication management service team. The medication management team also worked closely with care coordination staff to gain their confidence and support. “They became important advocates for our services within the clinics,” said one interviewee. Clinicians that began experiencing the service also became advocates, sharing their experiences with colleagues through their committee service and other venues.

The team began to discuss the medication management service with Park Nicollet’s payer relations group, knowing that any changes to contracts and services often required a 12-month lead time. One interviewee reflects, “They picked up on the value of the service right away. The integrated model (vs. the community pharmacy-based model) helped us

“They [payer relations] picked up on the value of the service right away. The integrated model helped us have a different discussion with payers.”

have a different discussion with payers.” A goal was to show payers how the team-based model could increase the success rate of their investments in medication management. The discussions centered on improving quality and reducing costs. Ultimately the payer relations



“It allowed us to show what an efficient, effective, highly-functioning team looked like.”

group saw benefit in selling medication management services as part of the medical home service bundle.

“The concept of the healthcare home changes how healthcare is provided and by whom it is provided. It brings in all sorts of new, previously unavailable resources into a team base and the patient is triaged within that team to the right resource—and that resource doesn’t always have to be a physician. That’s the key. We all will have to learn to get the patient to the right resource, and hopefully, that resource alignment reduces costs. That’s how you impact cost while providing optimal care for the patient,” stated one interviewee. Another reflected, “It’s about sharing the care.”

OPERATIONALIZING THE SERVICE

The medication management implementation plan called for regionalizing patient access to the service. The Health Care Home Director assisted in identifying clinics where the leadership would be supportive of integrating medication management services. “We very deliberately wanted to regionalize patient access

“We all will have to learn to get the patient to the right resource, and hopefully, that resource alignment reduces costs.”

and there were significant gaps,” said one interviewee. Sites were identified that had a large patient base or that were aligned with the organization’s Medicare ACO population. Once a clinic was selected, the pharmacist for that site was oriented onsite with other clinic team members with a defined set of

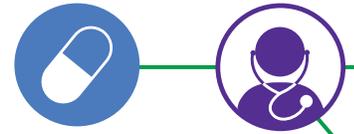
expectations of service offerings. The Park Nicollet team has defined a medication management practice model and established standards for documentation. Interviewees said this ensures all practitioners are practicing the same way. “From my previous experience, it is crucial to clearly define what the pharmacists do as part of the medication management service across sites,” said one interviewee. “This ensures that all staff have the same experience working with the pharmacy team. Our goal is consistency across the organization.”

Another key operational element was use of the system’s electronic health record. The medication management director worked with the EHR support team to streamline service documentation. Another goal was to efficiently collect practitioner productivity data. “We created a dashboard that allows us to measure the extent each pharmacist’s time is being utilized to provide direct patient care. In healthcare, data drives us. Thus having a constant stream of data on our services has been critical to support service expansion.”

The pharmacy leadership was able to secure additional FTEs by building a solid case to the Park Nicollet Chief Operating Officer. “We used an aircraft carrier analogy to explain the concept of an interprofessional care team that included the pharmacist,” noted one interviewee. “It allowed us to show what an efficient, effective, highly-functioning team looked like. And we related this to the medical home.” The COO’s son happened to be in the Navy and stationed on an aircraft carrier. After the presentation, the COO became an advocate for service expansion with other Park Nicollet leaders. With his support, additional FTEs were approved.

In addition to data, the team noted that patient stories have also played an important role in

“Everything we do, we touch a patient. It’s multiple team members; it’s never just one person’s contribution.”



service expansion. One interviewee stated, “We have had individual patient successes that stemmed from our ability to help them sort through complicated medication regimens.” The team highlighted one patient who is very comfortable with speaking in front of groups and has willingly shared her medication management experiences to promote the service. “Everything we do, we touch a patient. It’s multiple team members; it’s never just one person’s contribution. However, patient stories can be more illustrative of what a pharmacist can do and sharing that with leadership can help move that vision forward.”

TODAY

Services are now integrated within 14 of the system’s 21 primary care clinics. Expanding services is a shared responsibility between the clinic leadership and the pharmacist practitioner who practices at the clinic. The goal is to work with the individual clinics to maximize and fill the pharmacists’ patient care schedule. Periodically the medication

and care management meetings that occur at the clinics and the clinic staff want the pharmacist to be there to provide their input,” notes one interviewee. That can be difficult when the pharmacist is not there full time. A Drug Prescribing Update program update is presented to the primary care clinics in the Park Nicollet system annually. It provides information on ambulatory drug prescribing habits, trends and impacts on overall healthcare costs. The program also provides a description of the medication management service, where services are being provided and reinforces the patient referral process. “It’s interesting because in some of the clinics where the service has not yet been implemented, the clinic team has taken a vote to declare, ‘We want this.’ We have to carefully explain the implementation strategy to the physicians and nurses. Clearly, though, they see the value that the pharmacist resource brings to them and their patients,” said one interviewee. “The care model movement toward coordination and the medical home has allowed many to recognize the value that a pharmacist can bring to a care team.”

“The care model movement toward coordination and the medical home has allowed many to recognize the value that a pharmacist can bring to a care team.”

management director meets with clinic leadership and shares pharmacist utilization data. Sites become informed and goals are set to increase the pharmacists’ time in direct patient care activities. The pharmacy team shared that two clinic locations have a pharmacist five days a week while others only have a pharmacist two or three days a week. Several of those clinics would like to expand that to full time and goal setting assists this process by managing expectations and settings performance benchmarks. “There are planning

Today, work continues on identifying where the medication management team can bring the greatest value to the Park Nicollet system. The conversation is engaging both inpatient and outpatient services and a recent focus has been on bridging these two settings with care transitions strategies. Data is guiding the next round of service expansion—data allows pharmacy leadership to compare and contrast outcomes in various areas of the system and to project the value of the pharmacist on the patient care team. Highlighting this, one

Conceptual timeline for the growth of the Park Nicollet medication management program relating to operations, results, and relationships.

	FOUNDATIONAL	FORMALIZED	SUSTAINABLE
OPERATIONS	Pilot in pharmacies	Clinic-based medication management	
		Consistent pharmaceutical care practice	
		Health Care Home integration	
		College of Pharmacy partnership	
RESULTS		Patient stories	
		Accountable care contracts	
		Population health	
		Tracking medication management interventions	
RELATIONSHIPS	Existing relationships with pharmacies	Relationship marketing	
		Evolution of team-based care	
		Leadership support	



interviewee stated, “We are designing our evaluation practices to show alignment of medication management services with our quality and cost of care initiatives. That analysis contributes to meeting the health system’s goals of improving quality while lowering costs.” But they also note that, in the end, it all comes back to the services provided to patients. “The data we look at is population level, but we have to remind ourselves there are many individual patients reflected in the data. We are conscious about the fact that we improve health one patient at a time, and that in turn improves health across a population.”

Themes Associated with Service Integration

The information for each case study included in this series was gleaned via semi-structured interviews with key program leaders from each of the six participating health systems. Thematic analysis revealed 13 themes across the health systems. Each took a unique approach in the development of medication management services, but with few exceptions, each theme was identified by all of the health systems as part of the process.

A component of this work was to explore the health systems' service development efforts in relationship to John Kotter's 8-Step Process for Leading Change.¹ This 8-Step Process was further grouped into three distinct stages which we aligned with the identified themes as outlined in the table below.²

FREQUENCY KEY	
Not Discussed	○○○
Occasionally Cited	●○○
Frequently Cited	●●○
Area of Emphasis	●●●

For more detail on each theme, see the definitions on the following page.

STAGE OF CHANGE ²	THEME	ESSENTIA	FAIRVIEW	HEALTH PARTNERS	HCMC	MAYO CLINIC	PARK NICOLLET
Creating a Climate for Change	External Influences	●○○	●●●	●○○	●○○	●○○	●○○
	Pharmacists as an Untapped Resource	●○○	●○○	●●○	●●●	●○○	●○○
	Principles and Professionalism	●○○	●●○	●○○	●○○	●○○	●○○
	Organizational Culture	○○○	●●○	●○○	●○○	●○○	●○○
Engaging and Enabling the Whole Organization	Momentum Champions	●○○	●●○	●○○	●○○	●○○	●●○
	Collaborative Relationships	●○○	●○○	●○○	●○○	●○○	●○○
	Supportive Care Model Process	●●○	●●○	●●●	●○○	●●○	●●○
	Service Promotion	●●○	●○○	●○○	●○○	●●●	●●●
	Team-based Care	●●●	●●○	●○○	●●●	●○○	●○○
Implementing and Sustaining the Change	Implementation Strategies	●○○	●●●	●○○	●○○	●●○	●○○
	Overcoming Challenges	●●●	●○○	●○○	●●○	●●○	●●○
	Measuring and Reporting Results	●○○	●●●	●●●	●○○	●○○	●●○
	Sustainability Strategies	●●○	●○○	●○○	●○○	●●○	●●○

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1. Kotter J. Leading Change. Boston: Harvard Business School Press; 1996.
2. Cohen DS. The Heart of Change Field Guide. Boston: Harvard Business School Press; 2005.

Theme Definitions

THEME	DEFINITION
External Influences	Stimulating factors outside of pharmacy leadership such as changes in the organization, policies, or structure that contributed to the implementation of medication management services within the organization; relationships with outside parties (e.g., the University) that lead to initiating medication management services; programs designed to meet community measures (e.g., HEDIS).
Pharmacists as an Untapped Resource	Recognizing the untapped experience and expertise of pharmacists; recognizing problems that existed in care delivery that could be most effectively addressed by pharmacists; disease state management programs that first started using pharmacists (e.g., anticoagulation, diabetes, HIV).
Principles and Professionalism	The moral commitment that providing medication management services was the right thing to do for patient care drove program initiation; the organization's vision created roles highly desirable to many pharmacists.
Organizational Culture	An organizational environment that is supportive of innovation, piloting new ideas and strives to improve patient quality and safety while reducing cost.
Momentum Champions	Individuals that were key in establishing and moving medication management services forward; leadership support and enthusiasm; gathering key players.
Collaborative Relationships	Existing relationships with medical staff and health care staff that facilitated the implementation of medication management services.
Supportive Care Model Process	Administrative tools used to establish a process that fosters success of medication management services (creating service consistency; documentation standards; referral processes; resource sharing; collaborative practice agreements).
Service Promotion	Creating buy-in from providers, patients, and financial stakeholders; spreading the service through word of mouth, mailings, brochures, etc.; Identifying patient advocates willing to share their medication management stories.
Team-Based Care	Working in a team environment in which pharmacists are recognized as valued members of the team; making pharmacists accessible; embedding pharmacy services into the team; hiring the right people for the job who are passionate about providing services at the highest extent of their clinical abilities.
Implementation Strategies	Purposeful actions to ensure a successful initiation of medication management services within the organization.
Overcoming Challenges	Hurdles and barriers that hindered the implementation or expansion of medication management services; acknowledging mistakes that were made along the way.
Measuring and Reporting Results	Having data to support medication management services; creating transparency of data; patient satisfaction.
Sustainability Strategies	Post-service implementation strategies to expand and optimize services. This includes optimizing resources, establishing goals, ensuring financial sustainability, etc.