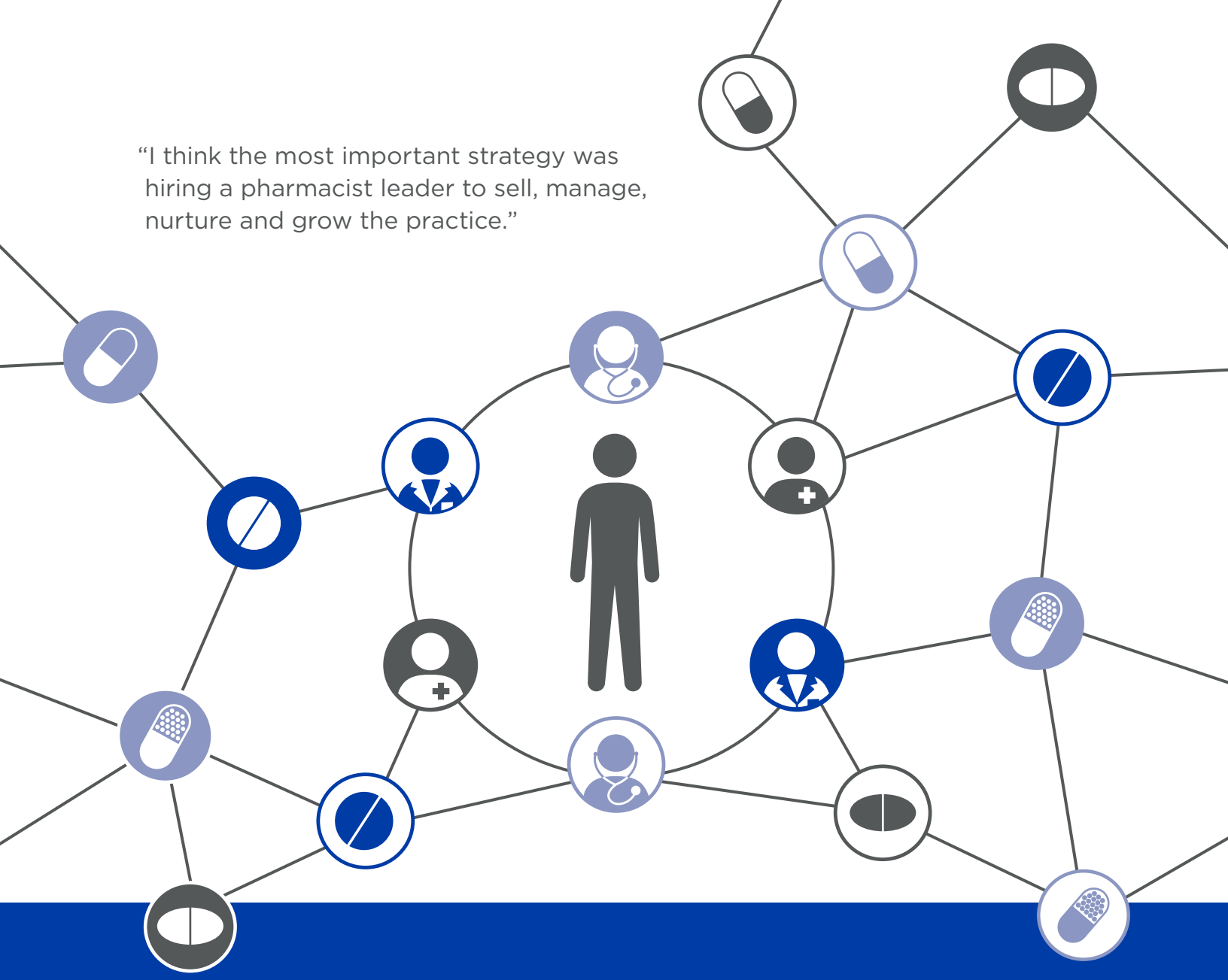
"I think the most important strategy was hiring a pharmacist leader to sell, manage, nurture and grow the practice."



Communication Strategies Build Momentum

A Case Study of Integrated Medication Management at Mayo Clinic

University of Minnesota
College of Pharmacy
PETERS CHAIR FOR PHARMACY PRACTICE INNOVATION

This case study is one in a series describing 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 program's 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 these 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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Research Team
Todd D. Sorensen, Pharm.D., Professor and Peters Chair for Pharmacy Practice Innovation
Lindsay A. Sorge, Pharm.D., MPH, BCACP, Research Associate
Marsha K. Millonig, BSPharm, MBA, Consultant
Margaret L. Wallace, Pharm.D., MS, BCACP, Research Fellow*
Jon Schommer, Ph.D., Professor
Deborah Pestka, Pharm.D., PhD Student

To contact the Research Team, direct inquiries to:
Todd D. Sorensen, Pharm.D.
Professor, College of Pharmacy, University of Minnesota
7-178 Weaver-Densford Hall
308 Harvard St. SE
Minneapolis, MN 55455
612-625-8645
Soren042@umn.edu

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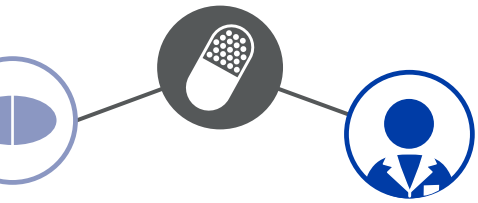


MAYO CLINIC

www.mayoclinic.org

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

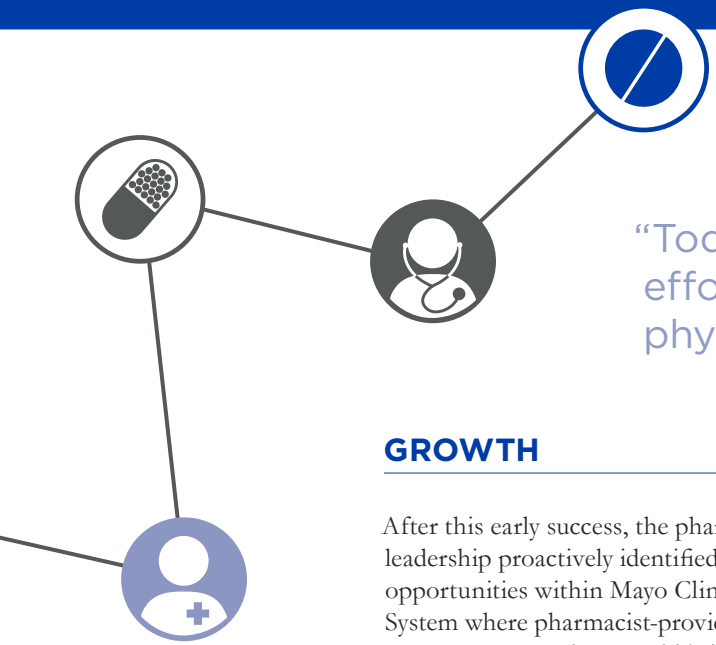
THE BEGINNING

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

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

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 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."

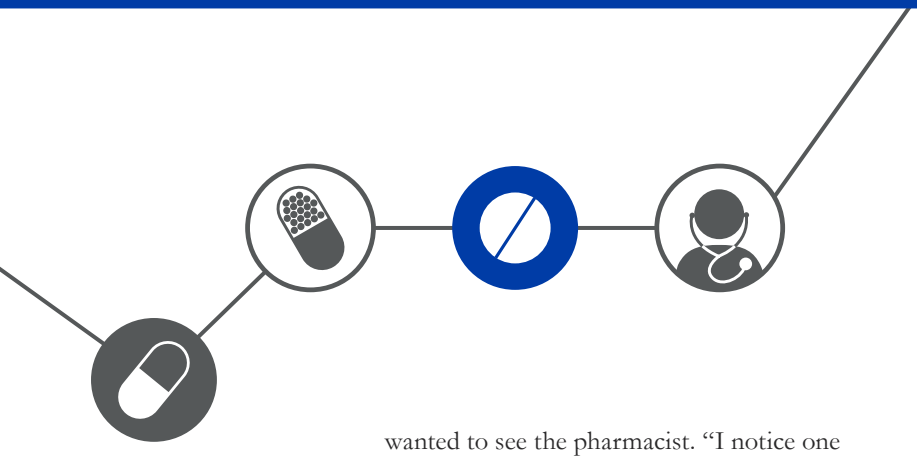
GROWTH

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 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."

"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 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.

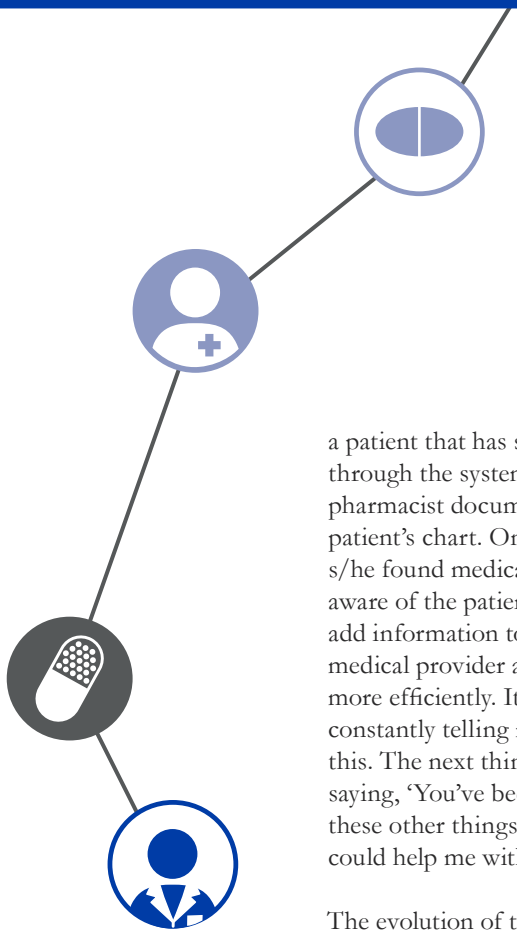
In addition to a multi-layered communications strategy and metrics, the advent of the Medicare Part D medication management services program and payment for medication management services from Minnesota Medicaid catalyzed the service's growth. "We now had temporary CPT billing codes and people became 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 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, 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.

"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."

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 pharamacist serve as a general resource for the medical and clinic staff, providing curbside consultations. Other times, the pharamacist 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.

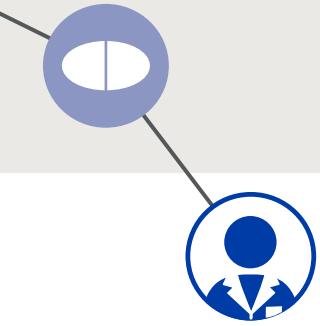
It has also spurred further integration of medication management services in care coordination. High-tier patients are identified for a more systematic care plan with a team of physicians, nurses and pharmacists. It took almost a year to get the service implemented and required a solid sell at the organization's 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	Systematic targeting of high-risk patients
			Collaborative practice agreements
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?"

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]

Actively promoting the medication management program was a key strategy utilized at Mayo Clinic. A supportive care model process and integration and sustainability strategies were also frequently cited as important to the development of the program.

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

STAGE OF CHANGE[2]	THEME	DEFINITION	FQ
Creating a Climate for Change	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.	●○○
Engaging and Enabling the Whole Organization	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.	●○○
Implementing and Sustaining the Change	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.	●●○

References

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.