TEAM-BASED CARE ENVIRONMENTAL SCAN

Fall 2014	Pharmacists

The Utah Department of Health (UDOH) conducted an environmental scan to assess the role pharmacists currently play on health care teams, as well as to understand facilitators and barriers to expanding their role. UDOH staff conducted open-ended interviews with seventeen key informants and administered a multiple choice survey to all Utah licensed pharmacists. This report presents an overview of the results of the environmental scan and recommendations for further actions

UTAH DEPARTMENT OF
HEALTH

Healthy Living Through Environment
Policy and Improved Clinical Care (EPICC)

Team-Based Care Environmental Scan

PHARMACISTS

Contents

ACKNOWLDGMENTS

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INTRODUCTION

More and more Utahns are living with at least one chronic condition. Currently, 25% of adults are diagnosed with hypertension and nearly 8% with diabetes. In addition to the toll chronic disease takes on individuals and families, the high rate of chronic disease is putting a burden on the health care system[1]. Nationally, 75 cents of every health care dollar is spent treating chronic conditions.[2] By working together to increase access to healthy choices, improve clinical care, and build connections between clinics and community-based services that support health, we can help prevent chronic conditions from developing and help community members who already have one or more chronic diseases manage their conditions effectively.

The Utah Department of Health (UDOH) Healthy Living through Environment Policy and Improved Clinical Care Program (EPICC) works to reduce the burden of chronic disease in communities across Utah by partnering with local health departments, health care systems, and a wide range of community partners. Figure 1 presents additional information about the EPICC Program. EPICC is working to improve clinical care by supporting team-based care. Health care providers work collaboratively with patients and each other to accomplish shared goals and coordinate care across settings. According to the Centers for Disease Control and Prevention (CDC):

"Each team includes the patient, the patient's primary care provider, and other professionals such as nurses, pharmacists, dietitians, social workers, and community health workers. Team members provide process support and share responsibilities of hypertension care to complement the activities of the primary care provider. These responsibilities include medication management; patient follow-up; and (medication) adherence and self-management support."[3]

THE HEALTHY LIVING THROUGH ENVIRONMENT POLICY AND IMPROVED CLINICAL CARE (EPICC) PROGRAM

The Utah Department of Health EPICC Program was formed in 2013 to increase synergy in preventing, treating, and managing chronic conditions. The Program is organized into four domains that work together to promote health:

- *Domain 1: Epidemiology and Surveillance – Gathers, analyzes and disseminates data and information. Evaluates, prioritizes, and monitors public health and public health programs.*
- *Domain 2: Environmental Approaches that Promote Health – Works to make sure the places where we live, learn, work, and play support and encourage healthy choices. Increases access to healthy food and opportunities for physical activity.*
- *Domain 3: Health Systems – Improves the delivery of clinical care to prevent diseases, detect diseases early, and help people manage chronic conditions. Promotes team-based care and the use of data for quality improvement.*
- *Domain 4: Community-Clinical Linkages – Builds connections between health care systems and evidence-based community programs.*

Find out more at www.choosehealth.utah.gov

FIGURE 1

Pharmacists play an important role on health care teams. They serve as the "medication experts" and can support patient self-management between visits with their primary care provider. In addition to dispensing medications, there are several ways pharmacists can improve patient outcomes.

As shown in Figure 2, pharmacists can provide various clinical services. Active involvement by pharmacists improves patient care and helps people manage their condition.[5] Pharmacists are also typically among the most accessible health care professionals as pharmacies are located in communities and neighborhoods across Utah.

Currently, many pharmacists are not practicing to the full extent of their license and training. Many pharmacists could and should be playing a more active role in supporting patients in managing chronic conditions.

EPICC conducted an environmental scan in late 2013 and early 2014 to inform work in integrating pharmacists into health care teams. Pharmacist ability to practice as part of health care teams is influenced by a variety of factors. Pharmacist skill and motivation are two of those, but they are also influenced by other members of the health care teams, the organizations where they practice, and broader community factors such as reimbursement for providing services. Based on the experience of other states, opportunities for payment are particularly important in supporting pharmacist clinical services.

The purpose of the environmental scan was to:
- Identify current Utah projects related to pharmacist clinical services
- Identify facilitators to the provision or expansion of pharmacist clinical services
- Identify barriers to the provision or expansion of pharmacist clinical services

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EXAMPLES OF PHARMACIST CLINICAL SERVICES

Medication Therapy Management (MTM) - *"Pharmacists provide MTM… by identifying, preventing, and resolving medication-related problems"[6]. Rather than providing education on an individual medication, pharmacists review all of the medications a patient is currently taking. They identify negative interactions or duplications and work with the patient to develop a plan for taking medications as prescribed. This service can be provided when a medication is being dispensed, or separately.*

Collaborative Drug Therapy Management – *"A collaborative practice agreement between one or more physicians and pharmacists wherein qualified pharmacists working within the context of a defined protocol are permitted to assume professional responsibility for … selecting, initiating, monitoring, continuing, and adjusting drug regimens."[7]*

Medication Reconciliation/Medication Review – "The process of comparing a patient's medication orders to all of the medications that the patient has been taking. This reconciliation is done to avoid medication errors such as omissions, duplications, dosing errors, or drug interactions."[8]*

Patient Education *– Pharmacists have the opportunity to educate patients on the medications they are taking and the importance of taking medications as prescribed. In addition, pharmacists are able to provide disease state education and encouragement on a regular basis when patients fill prescriptions.*

FIGURE 2

EPICC conducted interviews with seventeen pharmacist and health plan representatives. The information was used to develop an online survey that was administered to nearly 1,700 pharmacists licensed in the state of Utah. This report presents the findings from the environmental scan and recommendations for future actions to support team-based-care.

SUMMARY

Health plans and pharmacists are expanding the role of the pharmacist in chronic disease management. Health plans are establishing Interdisciplinary Care Teams (ICDs) to review challenging cases. Some are expanding access to a range of pharmacist clinical services with a focus on MTM. All pharmacists interviewed provide MTM to some patients. Many pharmacists provide additional clinical services such as patient education, telemonitoring, and pre-visit planning sessions. Some pharmacists are working closely with primary care providers through collaborative practice agreements and supporting patients as they transition from hospitals to the community by making sure they have the appropriate medications.

Survey respondents were overwhelmingly confident in their ability to provide clinical services, felt that clinical services would be helpful for patients, and were interested in providing more clinical services. The majority of survey respondents currently provide multiple clinical services, but few of these services are integrated into daily workflow.

Pharmacists who practice in organizations that support clinical services by doing things such as scheduling multiple pharmacists to work at one time, providing incentives for improved medication adherence, or supporting professional development around clinical services are more likely to have clinical services integrated into their workflow.

Interviewees and survey respondents both emphasized the importance of a trusting relationship between primary care providers and pharmacists. Based on survey responses, communicating regularly with a primary care provider and using tools such as a shared Electronic Health Record (EHR), the Clinical Health Information Exchange (cHIE), or face-to-face communication is important for supporting team-based care.

Of barriers named by respondents, payment was mentioned most often. Pharmacists are not typically reimbursed for providing clinical services, which makes it harder for organizations to justify investing in these services. Pharmacists report providing many services sometimes, but it is rarely a priority, and their time tends to be tightly scheduled. Interviewees did appreciate that Medicare and other health plans will reimburse for Diabetes Self-Management Education and MTM. But these opportunities for reimbursement are limited to a small number of members. Other common barriers that interviewees and respondents brought up included time and staffing levels.

Utah pharmacists can be key members of the health care team. It is important that all professions work together to ensure that organizations and the broader environment support pharmacists' ability to provide clinical services.

SECTION I: KEY INFORMANT INTERVIEWS

Interviews were conducted between November 2013 and January 2014. Interviewees were selected based on their expertise and interest in pharmacist clinical services. EPICC identified interviewees by working with partners including health plans, UDOH staff, and the regional quality improvement organization. Interviewees were invited to participate via email, and received no incentive.

Interviews were informal and semi-structured. Participants were asked whether they had any current projects related to the provision of pharmacist clinical services and what facilitators and barriers they saw to providing these services.

Interview participants included:

Health Plans n=9, including large integrated health systems, self-funded insurers, Medicaid-funded Accountable Care Organizations, and small insurers. Titles of interview participants included: Clinical Pharmacy Director, Quality Improvement Specialist, and Director of Medical Quality.

Pharmacists n=8, with representatives from retail pharmacy, independent pharmacists, and pharmacists practicing within large integrated health systems. Interviewees had titles such as Pharmacy Director, Clinical Coordinator of Pharmacy Ambulatory Care Services, and Clinical Pharmacist.

HEALTH PLANS

Current Projects

Health plans are working to enhance collaboration between pharmacists and other health care providers. They are also expanding the types of services offered in the pharmacy.

All health plans brought up Interdisciplinary Care Teams (ICD). These teams meet regularly to review particularly challenging cases and develop recommendations. Three health plans currently use an ICD that includes pharmacists. Two health plans are planning to establish or expand their ICDs.

Health plans are also expanding access to different types of pharmacist clinical services. Two health plans are using pharmacists to provide specialty drug care. Specialty drugs are expensive and challenging medications that usually require regular follow-up and communication with the patient. Examples include HIV, cancer, and diabetes medications. Staff pharmacists review medications prescribed, and offer adjustments. Another health plan allows patients with diabetes to receive discounts on medications and supplies such as insulin pumps. One health plan is working to allow reimbursement for MTM to non-Medicare members with multiple chronic conditions. Another health plan is planning to work with its pharmacy benefits manager to match patients with a pharmacist in their community. The community pharmacist would provide follow-up and education.

Facilitators

Health plans identified facilitators to pharmacist clinical services at the organizational and national levels. The organization needs to be committed to team-based care and open to trying new models. Established relationships between pharmacists and providers are important when building health care teams. Pharmacists and providers need a convenient way of communicating, such as a shared Electronic Health Record (EHR). One health plan also brought up national policies including Medicare reimbursement for MTM and promotion of ICDs as important facilitators.

Barriers

A lack of resources is a barrier to being able to research, adapt and implement new models of care are barriers to expanding the role of pharmacists. Health plans also need to see a quick return on investment with any new project. Nationally, the Centers for Medicare and Medicaid Services does not recognize pharmacists as health care providers. This makes it unlikely other health plans will reimburse pharmacists for providing clinical services.

PHARMACISTS

Current Projects

All pharmacists interviewed expressed support for an expanded role on the health care team. All interviewees identified current projects related to pharmacist clinical services. Projects fell into three categories: enhancing collaboration between pharmacists and other health care providers; expanding the services offered within a pharmacy, and, organizational changes that pharmacies are making to improve care.

Multiple interviewees are working under collaborative practice agreements and supporting care transitions. Collaborative practice agreements allow pharmacists to adjust medication doses and types based on an established protocol. Pharmacists follow up with patients who have been prescribed a new medication or dose and identify negative interactions or adherence problems quickly. All information is communicated to the treating physician. In one Utah example, a pharmacist following up with difficult to treat hypertension patients and making medication adjustments under collaborative practice agreements was able to help 87% of participating patients achieve their blood pressure goals. Most pharmacists practicing under collaborative practice agreements work in an integrated health system such as a Federally Qualified Health Center or university-owned clinic. Multiple interviewees said that they have made a conscious effort to develop relationships with physicians and that it has helped them establish collaborative practice agreements.

Pharmacists are working closely with other health care team members to support patients as they transition out of the hospital. One pharmacist described how the team identifies patients recently discharged and follows up with them to make sure they have all of the medications they need and that their prescription record is up to date. A second pharmacist expressed a desire to better support care transitions in the retail pharmacy setting, but does not have a specific project underway.

All pharmacists interviewed are providing at least one service beyond dispensing. These services include MTM, patient education, medication synching, pre-visit planning, and immunizations. MTM was the most common example. Pharmacists across settings are providing education to patients on their specific disease. Education is sometimes part of a formal education program, such as Diabetes Self-Management Education (DSME). It can also be a less structured effort to educate the patient on why it is important to take medications as prescribed. Some pharmacies are synching patients' medications so that they can pick up all of their prescriptions at once.

Pharmacists are providing pre-visit planning sessions to patients within integrated health systems. Pre-visit planning allows patients to meet with a pharmacist before an appointment with a primary care provider. The pharmacist reviews the patient's medications, updates his or her record, orders lab tests, and identifies possible medication issues. The provider visit is much more efficient and providers appreciate the additional information.

One pharmacist is using tele-monitoring to improve care for patients with diabetes and hypertension. She worked with patients at three different community health centers to monitor clinical measures such as blood pressure, A1C, and weight, and communicated that information back to the clinic. The same pharmacist also provides a range of services to help patients manage their chronic conditions. These include patient education, medication review, and medication titration. Participating patients saw improvement in A1C and blood pressure levels. Qualitative feedback indicates that patients appreciated the services and felt more in control of their disease. The coordinating pharmacist emphasized the importance of establishing a relationship with patients and motivating them to make changes, rather than telling them what to do.

Other suggestions for expanding the role of pharmacists included integrating dietitian services in pharmacies, supporting medical home initiatives, and supporting pharmacist communication with physicians.

Pharmacies are making organizational changes that support the provision of pharmacist clinical services. Two pharmacists brought up efforts being made to provide extra training for staff. One pharmacy has developed a mini-rotation schedule where pharmacists who are interested are able to spend five weeks at a pharmacy with well-established clinical services. A second pharmacy has identified early adopters who have received extra training in clinical services. These early adopters are able to travel among pharmacies within their region to provide clinical services. The early adopters continue to spend the majority of their time in their home pharmacy. In the future, this same pharmacy is planning to require all pharmacists to receive a Diabetes Education Certificate.

Retail pharmacies are improving the quality of screening services available to clients. These include services such as blood pressure monitoring and BMI measurement. The pharmacist can review the patient's results and provide education. In addition, one retail pharmacy chain is offering appointment-based health coaching focused on specific health issues. Health coaching is primarily available on a contract basis through employee wellness plans.

Facilitators

Pharmacists discussed relationships, organizations, skill level, and national policy as important facilitators for providing clinical services.

The most common theme was the importance of collaboration with other health care providers. Pharmacists felt that demonstrating their skill by managing particularly challenging and potentially dangerous medications was a good way to establish these relationships. Pharmacists see having an established relationship with health care providers and a way of communicating with them as important. A shared EHR was seen as the best method of communication for supporting team-based care.

There are many other ways that organizations are supporting pharmacist clinical services. Some offer private space to allow pharmacists to counsel patients. Scheduling two pharmacists to work at the same time makes it easier for pharmacists to provide clinical services, as one pharmacist is able to switch between counseling patients and dispensing. Organizations that support pharmacist clinical services see it as an investment that helps them attract additional clients.

National trends and policies are a major influence on whether pharmacists in Utah provide clinical services. Currently, increased attention is being paid to the potential that pharmacists have to improve outcomes. This influences Centers for Disease Control and Prevention (CDC) funding decisions, national conference topics, and research spending. Medicare Part D reimburses pharmacists for providing MTM to a limited number of patients. This reimbursement is an important motivator to provide the service to all patients who qualify. Some national trends in research and policy are making it easier for Utah pharmacists to provide clinical services.

Barriers

Pharmacists identified barriers that fell into roughly four categories: Payment/billing, integrating processes into workflow, time/staffing, and pharmacist skill/motivation.

Payment was the most commonly identified barrier, and it came up in all settings. Pharmacists are not considered providers and are typically not reimbursed for providing clinical services. While some pharmacists provide these services anyway, others are not motivated to do so. Pharmacists are able to bill for some services, such as DSME, but the billing process can be frustrating and time consuming. In addition, reimbursement levels for providing patient education are low.

Pharmacists in both retail and integrated health systems saw standardizing protocols as challenging. Interviewees recognized that pharmacist provision of clinical services varies within their organizations. Multiple organizations lack systematic supports or prompts for providing clinical services.

Several interviewees brought up time and staffing levels as challenges. One interviewee viewed lack of time as the most significant barrier.

Pharmacist training and motivation were identified as barriers. There is wide variation in the training pharmacists have received. Since 1990, the PharmD has been the standard professional degree and requires significant training in clinical practice. Pharmacists who received their training before 1990 may not have a similar level of clinical training. Pharmacists also have the option of completing a one-year

rotation after their PharmD program, providing them with advanced clinical experience. Not all pharmacists choose to complete a rotation, and two interviewees also shared that it is challenging to motivate experienced pharmacists to adopt new practices.

SECTION II: SURVEY

METHODS

Subjects: The UDOH Clinical Pharmacy Survey was sent to all licensed pharmacists who had a Utah address and an email address listed with the Utah Division of Occupational and Professional Licensing (DOPL). The list comprised 1,627 pharmacists.

Procedure: 41-item survey was developed based on a review of relevant studies [9,10,11,12] and formative interviews with seventeen pharmacists and health plan representatives. The goal of the survey was to assess current provision of clinical services and facilitators to providing those services. The survey was piloted by five pharmacists who practice in different settings. It was distributed via Survey Monkey. Pharmacists who completed the survey were entered into a drawing to win a $20 gift certificate.

Response Rate: 331 Utah pharmacists, or 20%, completed at least some of the survey. 279 respondents completed the entire survey. Where applicable, both the proportion and number of respondents for a particular question are specified (%/n).

Survey Categories

Clinical Services: Pharmacists were asked if they had provided any of seven defined clinical services in the past year, and if those services are integrated into their workflow.

- Medication Therapy Review: A systematic process of collecting patient-specific information and assessing medication therapies to identify medication-related problems.
- Patient Education: Disease state education beyond the specific medication being dispensed, such as education on lifestyle modifications, consequences of not managing a condition, and ideas for taking medications appropriately.
- Follow-up: Scheduling of follow-up visits based on the patient's medication related needs or when the patient is transitioned from one care setting to another.
- Collaborative Practice: An agreement between one or more physicians and pharmacists wherein qualified pharmacists working within the context of a defined protocol are permitted to assume the professional responsibility for: performing patient assessments; ordering drug therapy-related laboratory tests; administering drugs; and selecting, initiating, monitoring, continuing or adjusting drug regimens.
- Health Care Referrals: When medication-related issues are identified, the pharmacist refers the patient to a physician or other health care professional.
- Community Referrals: When appropriate, the pharmacist refers patients to a community-based service such as the Living Well with Chronic Disease Self-Management Program, the Living Well with Diabetes Self-Management Program, or the American Diabetes Association/American Association of Diabetes Educators Licensed Diabetes Self-Management Education Program.

- Diabetes Self-Management Education: Providing reimbursable Diabetes Self-Management Education accredited by the American Diabetes Association and/or the American Association of Diabetes Educators.

Facilitators: Using a 5-point Likert scale, respondents were asked about a number of possible facilitators at the individual, organizational and community levels.

- **Individual Facilitators:** Confidence providing each of the seven clinical services, perceived helpfulness of each clinical service, and their personal interest in providing each clinical service.
- **Organizational Factors:** If organizations: build in time for pharmacists to provide clinical services; offer incentives for improved outcomes such as medication adherence; build in time for pharmacy techs to schedule and follow-up with patients; have private space for consulting with patients; support pharmacists in professional development; or synch medications so that patients can pick them all up at once.
- **Community Facilitators:** Perceived strength of the relationship and level of communication with other health care providers in the community. In addition, respondents were asked whether they "sometimes", "often", or "never" use certain tools to communicate with other health care providers; e.g. the telephone.

Analysis: Respondents were given a "clinical services score" (CSS) of 1-7 based on the number of services they reported being integrated into their workflow.

For measures on a Likert scale, response categories were combined, e.g. strongly agree with agree and strongly disagree with disagree. Independent two-sample t-tests were used to test for associations between the CSS and possible facilitators. A p-value of <0.05 was considered statistically significant.

RESULTS

Demographics: Respondents were 331 licensed Utah pharmacists. The sample was predominantly urban (88%/271).[13] Despite the high proportion of respondents from urban areas, 19 of Utah's 29 counties were represented. Most respondents (70%/178) have a PharmD. Table 1 shows the settings where respondents practice.

TABLE 1: PHARMACY SETTING (%/N)

Answer Choices	Responses
Independent pharmacy	11.30 (33)
Retail pharmacy	43.49 (127)
Pharmacy located within a health care facility	9.25 (27)
Hospital	33.9 (99)
Total	286

Compared to a random sample of 3,000 U.S pharmacists, this sample has a higher proportion of doctoral level pharmacists (70% vs. 21.6% nationally). The distribution across setting is comparable, with 54.8% practicing in a community setting vs. 45.2% nationally. "Community setting" includes both retail and independent pharmacies.[14]

Pharmacy Clinical Services

Most Utah pharmacists have provided some type of clinical service in the past year, but fewer have integrated clinical services into their workflow. Table 2 shows the proportion of pharmacists who reported having provided each service in the past year and whether or not that service is integrated into workflow.

TABLE 2: TYPES OF SERVICES (%/N)

Service	Provided in the past year	Integrated into workflow (of respondents who provided service in the past year)
Medication Therapy Review	74.77/246	66.37/152
Patient Education	87/275	67.94/178
Follow-up	38.8/116	68.42/78
Collaborative Practice	53.18/159	88.61/140
Health Care Referrals	57.82/170	72.35/123
Community Referrals	20.21/58	75.41/46
Diabetes Self-Management Education	28.37/82	67.07/55

Most respondents reported having provided three clinical services in the past year, but only have one or zero integrated into workflow Table 3 shows the number of services respondents have provided in the past year and the number integrated into workflow.
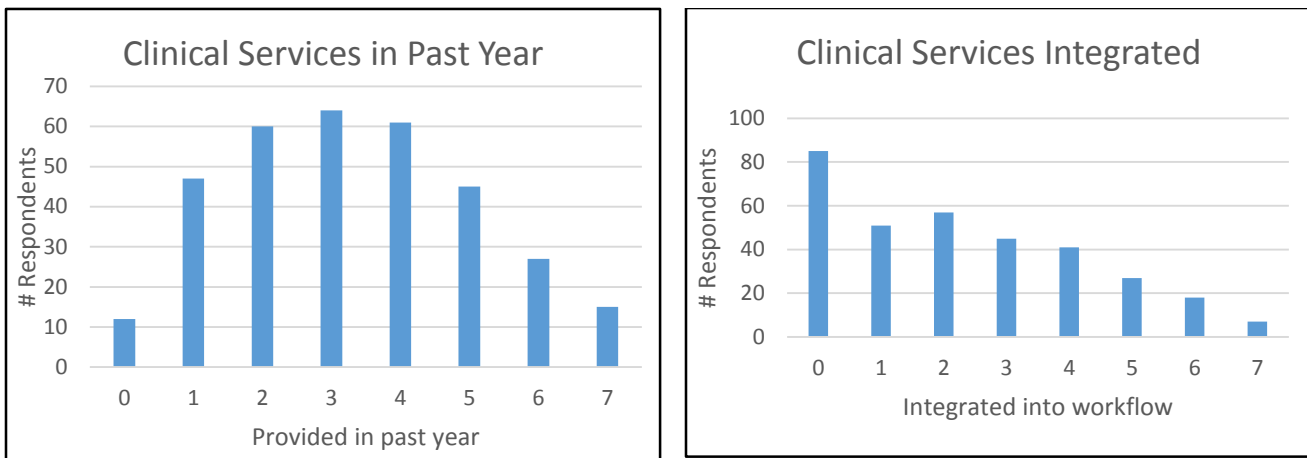
Clinical Services in Past Year — X axis: Provided in past year (0–7), Y axis: # Respondents

Clinical Services Integrated — X axis: Integrated into workflow (0–7), Y axis: # Respondents

TABLE 3

Pharmacists reported providing most services primarily to patients with hypertension and heart disease. Some also provide services to patients with stroke, diabetes, and asthma.

Facilitators

Individual

The majority of pharmacists reported being very willing to provide clinical services. They reported feeling confident in their ability to provide clinical services, that clinical services would be helpful for their patients, and that they are interested in the opportunity to provide more services.

Over 90% of respondents reported feeling confident in their ability to provide medication therapy review and Patient Education. Respondents were the least sure about their ability to provide community referrals. Only 64% of respondents felt confident in their ability to provide this service.

Medication therapy review, patient education, and collaborative practice were the most popular choices when asked if services would be helpful for patients and if respondents were interested in providing a service. More than 85% of respondents indicated that they are interested in providing these services and believe they would be helpful for patients. Fewer respondents were interested in providing community referrals (65%), or thought that community referrals would be beneficial for their patients (72%).

Organizational Facilitators

The type of organization where a pharmacist practices had a significant association with his/her CSS. Pharmacists practicing in a pharmacy integrated with a clinic and independent pharmacists had higher CSS than pharmacists practicing in other settings.

Regardless of the specific setting, several organizational factors were also associated with higher CSS. Table 3 shows the relationship between organizational factors and CSS.

TABLE 3: ORGANIZATIONAL FACILITATORS

Question	x̄ CSS Agree	x̄ CSS Disagree	p-value	N
My organization allows me to build time into my schedule to provide clinical services, e.g., non-dispensing services.	3.11	1.67	<.001	278
My organization provides incentives for improved clinical outcomes such as medication adherence or blood pressure control.	3.53	2.15	<.001	276
Pharmacy techs in my organization have time to schedule and follow up with patients.	3.62	2.25	<.001	273
I have access to private space to discuss medication issues and to provide clinical services.	3.08	1.99	<.001	272
My organization supports my continued professional development around clinical services.	2.89	1.48	<.001	275
My organization "synchs" medications so that patients can pick up all medications at one time.	3.32	2	<.001	276

Building in time to provide clinical services and providing continued professional development around clinical services were associated with the largest increases in CSS.

Community Facilitators

Most pharmacists (85%) agreed with the statement, "I have a respectful relationship with other health care providers in my community", but there was not an association with reported relationship with health care providers and CSS. The level of communication between pharmacists and other community health care providers may be a more important facilitator for clinical services. Respondents who reported that they communicate regularly with other health care providers had a higher average CSS.

How a pharmacist and health care provider communicate may also be significant. Pharmacists who use face-to-face communication, a shared EMR, or the cHIE sometimes or often had higher CSS than pharmacists who never used these communication tools. Few pharmacists reported using the cHIE (46), however, pharmacists who reported using the cHIE had the highest average CSS.

Open-ended Response

Thirty-two respondents chose to submit additional comments related to clinical services. Most reiterated that they would like to provide clinical services, but they face significant barriers doing so. Financial barriers were the most common. Pharmacists reported that because these services do not directly generate revenue, they tend to be deemphasized by organizations and it is difficult to integrate them into workflow. Pharmacists are not considered providers by Medicaid, Medicare, or commercial health plans, and with few exceptions are not reimbursed for providing clinical services. One pharmacist described the financial struggle in this way, "Reimbursement for these services would definitely incentivize my employer(s) to facilitate providing services. Right now we are rarely paid for helping patients and therefore the emphasis is still on dispensing..."

Pharmacists brought up insufficient time and staffing levels as well as organizational focus on dispensing as barriers to providing clinical service. Two pharmacists expressed that physicians do not understand the important role that pharmacists can play and complained of a lack of communication between the two groups.

Several pharmacists also shared positive comments. Eight respondents reported that their primary responsibility is providing clinical services and that they work closely with all members of the health care team. One person wrote, "I work in a family medicine clinic in line with the PCMH (Patient Centered Medical Home) model of care. This is the future of clinical pharmacy in the outpatient setting, being a part of the team and working alongside providers."

DISCUSSION

There is significant potential to expand the role of pharmacists in Utah. There is a high level of awareness and interest among interviewees and survey respondents in expanding the role of Utah pharmacists. Based on this information, it is likely that given the right organizational and community facilitators, pharmacists would integrate clinical services into their workflow and be active members of the health care team. There are already many projects related to expanding the role of Utah pharmacists underway, but many of these projects are still small or limited in scope.

Interviewees and survey respondents identified several areas as possible targets for intervention. Supporting connections between pharmacists and other members of the health care team, as well as encouraging organizational changes, are two potentially important interventions. Participants emphasized the value of a trusting relationship between pharmacists and other health care providers. Survey responses indicated that communication is a key component of a positive relationship between pharmacists and other health care providers. Strengthening communication between health care providers and pharmacists by working with health systems to integrate EMRs into practice and connecting to the cHIE would likely make it easier for pharmacists to collaborate with other members of the health care team.

Working with organizations to include time for pharmacists to provide clinical services, and support of continued professional development, may be effective ways to support pharmacist clinical services. The importance of being able to receive payment for providing clinical services was reiterated several times.

Providing financial incentives, whether through reimbursement or another model, might encourage organizations to better support pharmacists in providing clinical services. Whether at the organizational or individual pharmacist level, providing incentives for clinical outcomes – such as medication adherence – would likely encourage pharmacist clinical services.

LIMITATIONS

This scan has several limitations. Limitations included: a convenience sample, low completion rate, and reliance on self-report. In addition, this scan focused on the perceptions of pharmacists, with some input from health plans. It does include the thoughts and perceptions of other members of the health care team such as physicians and, based on the importance interviewees and survey respondents put on a positive relationship with physicians, their perceptions could be a particularly important area for additional study.

This scan relied on a convenience sample of pharmacists for both interviews and survey responses. Interviewees were particularly targeted for their interest in pharmacy clinical services. This scan did not identify nor interview key informants who were opposed to or uninterested in the role of pharmacists on health care teams to better understand their concerns. Survey respondents included only pharmacists who chose to participate in the survey. It is likely that respondents differ from non-respondents in a variety of ways. For example, when compared to a national sample the sample participating in this survey has a much higher average level of education (70% holding doctoral degrees compared with 22% nationally). We do not know what other differences might exist or how these differences might influence responses.

In addition, a large number of survey respondents did not complete the survey. We chose to use all responses, regardless of whether the respondent completed the entire survey. This likely biases our results. We do not know what differences there might be between responders who completed the entire survey and responders who did not.

Information gathered was also entirely by self-report. We have no way of independently verifying what respondents say.

Despite these limitations, this report is valuable for better understanding the clinical services that are currently being provided by Utah pharmacists and factors that might facilitate providing these services

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APPENDIX A: INTERVIEW QUESTIONS

Introduction:

I recently started at the Utah Department of Health and one of my projects is conducting an environmental scan of projects around the state that are working to integrate pharmacists into care teams, or increase pharmacist involvement in chronic disease management.

This is a broad area, but could include initiatives such as providing medication therapy management, improving medication adherence, or establishing collaborative practice agreements with area providers as examples. The purpose of this "scan" is to learn what is already going on around the state and to help me figure out ways that I/the Department of Health might be able to support projects in the future.

Questions:

What do you think the role of pharmacists is in treating or managing chronic disease?

Has ORGANIZATION done anything in the past to build the capacity of pharmacists to manage chronic diseases?

How do you think community pharmacists, physicians/NPs/PAs, and patients can best work together to adjust BP medications?

Do pharmacists on staff have dedicated time for medication therapy management or clinical (non-dispensing) activities, such as under Medicare Part D?

What sort of compensation for your clinical time would be necessary to allow for completion of these new tasks?

What are your thoughts about the idea of pharmacists using e-mail or websites to communicate with patients about hypertension management? To communicate BP medication changes with providers' offices?

How might a project focused on chronic disease management be helpful to your pharmacy practice or patients? How might it be troublesome to the pharmacy practice or patients?

What do you think the response of pharmacists in your organization would be to an expanded scope of duties?
    What do you think would be the best way to get input from them?

(Adapted from Robins L, Jackson E, Green B, Korniebel D, Force R, Baldwin J. Barriers and Facilitators to Evidence-based Blood Pressure Control in Community Practice. Journal of the American Board of Family Medicine. 2013; 26:539-57.)

APPENDIX B: SURVEY QUESTIONS

Thank you for taking the time to complete this survey. As I am sure you are aware, pharmacists provide valuable care throughout Utah and are the medication experts on the health care team. The Utah Department of Health is interested in working with pharmacists and other health system partners to maximize the role that pharmacists play in health care. Your responses to this survey will help guide our actions over the next several years. This survey takes about 15 minutes to complete. You will be asked questions about the clinical services you currently provide, as well as the facilitators and barriers you see to providing clinical services. Clinical services are services other than dispensing such as completing a comprehensive medication review.

At the end of the survey you will be asked to give us your name and a way to contact you. This is so that you can be entered into a prize drawing. This information will not be shared.

If you have any questions or are interested in working with the Utah Department of Health please contact Teresa Roark at troark@utah.gov or by phone at 801-538-9215

1. What is the zip code where you currently practice as a pharmacist?
2. Which setting best describes where you currently practice? (please choose only one)
Independent pharmacy
Pharmacy located within a retail setting (e.g., Walgreen's)
Pharmacy located within a clinic or other health care facility, but not owned or operated by the health care facility
Pharmacy within a clinic AND owned or operated by the health care facility
Hospital
Other (please specify)

3. How many years total have you been practicing as a pharmacist? Please round to the nearest whole number.
4. What is the highest level of pharmacy education you have completed?
Bachelors degree
PharmD
Participated in clinical residency
Board certified in a particular specialty

5. Do you have any additional certifications or licenses relevant to chronic disease care? (Check all that apply)
Certification as a Diabetes Educator by the American Association of Diabetes Educators
Certified in Pharmacist and Patient Centered Diabetes Care by the American Pharmacist Association
Certified in Delivering Medication Therapy Management by the American Pharmacist Association
Certified Asthma Educator by the National Asthma Educator Certification Board
Certified Nutrition Support Clinician by the National Board of Nutrition Support Certification, Inc.
Board Certified Pharmacotherapy Specialist
Board Certified Ambulatory Care Specialist
Other (please specify)

6. Approximately how many patients does your pharmacy serve on an average day?
7. Approximately how many full time equivalent (FTE) pharmacists are employed at the pharmacy where you work?

Medication Therapy Review (MTR)
A systematic process of collecting patient-specific information and assessing medication therapies to identify medication-related problems.
8. Medication Therapy Review
I provided this service at least once in the past year.

Yes
No

9. I provide this service for patients with the following conditions (check all that apply).
Arthritis
Asthma
Cancer
Diabetes
Heart Disease/Stroke
Hypertension
Tobacco Dependence
Other

10. Facilitators
How much do you agree or disagree with the following statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
This service is fully integrated into my workflow					
I receive adequate compensation for this service					
Other health care providers refer patients to me so I can provide this service					

11. Interest
How much do you agree or disagree with the following statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
I am confident in my ability to provide this service even if I currently do not provide it					
I think this service would be/is very helpful for the patients I see					
I would like to provide this service more regularly					

Patient Education
Disease state education beyond the specific medication being dispensed such as education on lifestyle modifications, consequences of not
Managing a condition, and ideas for taking medications appropriately

12. Patient Education I provided this services at least once in the past year

Yes
No

13. I provide this service for patients with the following conditions (check all that apply)

Arthritis
Asthma
Cancer
Diabetes
Heart Disease/Stroke
Hypertension
Tobacco Dependence
Other

14. Facilitators How much do you agree or disagree with the following statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
This service is fully integrated into my workflow					
I receive adequate compensation for this service					
Other health care providers refer patients to me so I can provide this service					

15. Interest How much do you agree or disagree with the following statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
I am confident in my ability to provide this service even if I currently do not provide it					
I think this service would be/is very helpful for the patients I see					
I would like to provide this service more regularly					

Follow up
Scheduling of follow-up visits based on the patient's medication related needs or when the patient is transitioned from one care setting to another.

16. Follow up I provided this service at least once in the past year

Yes

No

17. I provide this service for patients with the following conditions (check all that apply)
Arthritis
Asthma
Cancer
Diabetes
Heart Disease/Stroke
Hypertension
Tobacco Dependence
Other

18. Facilitators How much do you agree or disagree with the following statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
This service is fully integrated into my workflow					
I receive adequate compensation for this service					
Other health care providers refer patients to me so I can provide this service					

19. Interest How much do you agree or disagree with the following statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
I am confident in my ability to provide this service even if I currently do not provide it					
I think this service would be/is very helpful for the patients I see					
I would like to provide this service more regularly					

Collaborative practice
An agreement between one or more physicians and pharmacists wherein qualified pharmacists working within the context of a defined protocols
are permitted to assume the professional responsibility for performing patient assessments, ordering drug therapy related laboratory tests; Administering drugs; Selecting, initiating, monitoring, continuing; And adjusting drug regimens.
20. Collaborative Practice I provided this service at least once in the past year

Yes
No

21. I provide this service for patients with the following conditions (check all that apply)
Arthritis

Asthma
Cancer
Diabetes
Heart Disease/Stroke
Hypertension
Tobacco Dependence
Other

22. Facilitators How much do you agree or disagree with the following statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
This service is fully integrated into my workflow					
I receive adequate compensation for this service					
Other health care providers refer patients to me so I can provide this service					

23. Interest How much do you agree or disagree with the following statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
I am confident in my ability to provide this service even if I currently do not provide it					
I think this service would be/is very helpful for the patients I see					
I would like to provide this service more regularly					

Health care Referrals
When medication related issues are identified the pharmacist refers the patient to a physician or other health care professional.

24. Health care Referrals I provided this service at least once in the past year

Yes
No

25. I provide this service for patients with the following conditions (check all that apply)
Arthritis
Asthma
Cancer
Diabetes
Heart Disease/Stroke
Hypertension
Tobacco Dependence
Other

26. Facilitators How much do you agree or disagree with the following statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
This service is fully integrated into my workflow					
I receive adequate compensation for this service					
Other health care providers refer patients to me so I can provide this service					

27. Interest How much do you agree or disagree with the following statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
I am confident in my ability to provide this service even if I currently do not provide it					
I think this service would be/is very helpful for the patients I see					
I would like to provide this service more regularly					

Referral to community based services when appropriate the pharmacist refers patients to a community based service such as the Living Well with
Chronic Disease Self-Management Program, the Living Well with Diabetes Self-Management Program, or the American Diabetes
Association/American Association of Diabetes Education licensed Diabetes Self-Management Education Program

28. Community Referrals I provided this service at least once in the past year

Yes
No

29. I provide this service for patients with the following conditions (check all that apply)
Arthritis
Asthma
Cancer
Diabetes
Heart Disease/Stroke
Hypertension
Tobacco Dependence
Other

30. Facilitators How much do you agree or disagree with the following statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
This service is fully integrated into my workflow					
I receive adequate compensation for this service					
Other health care providers refer patients to me so I can provide this service					

31. Interest How much do you agree or disagree with the following statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
I am confident in my ability to provide this service even if I currently do not provide it					
I think this service would be/is very helpful for the patients I see					
I would like to provide this service more regularly					

Diabetes Self-Management Education
Providing reimbursable Diabetes Self-Management
Education accredited by the American Diabetes Association and/or the American Association of Diabetes Educators

32. Diabetes Self-Management Education I provided this service at least once in the past year

Yes
No

33. Facilitators How much do you agree or disagree with the following statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
This service is fully integrated into my workflow					
I receive adequate compensation for this service					
Other health care providers refer patients to me so I can provide this service					

34. Interest How much do you agree or disagree with the following statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
I am confident in my ability to provide this service even if I currently do not provide it					
I think this service would be/is very helpful for the patients I see					

I would like to provide this service more regularly					

This section will ask about communication with other health care providers in your community

35. I have a respectful relationship with other health care providers in my community

Strongly Disagree
Disagree
Agree
Strongly Agree

36. I regularly communicate with other health care providers in my community about patient care (for example, adherence issues, or side effects the patient is experiencing)

Strongly Disagree
Disagree
Agree
Strongly Agree

37. I use the following tools to communicate with other health care providers (mark all that apply)

	Never	Sometimes	Often
Clinical Health Information Exchange (cHIE) Direct			
A different secure email or "Direct" product			
A shared Electronic Health Record (EHR)			
Fax			
Telephone			
Face to face communication			

This section will ask about organizational factors that might influence pharmacist clinical services

38. Organizational Factors

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
My organization allows me to build time into my schedule to provide clinical services e. g. non-dispensing services					
My organization provides incentives for improved clinical outcomes such as medication adherence or blood pressure control					
Pharmacy techs in my organization have time to schedule and follow up with patients					
I have access to private space to discuss medication issues and to provide clinical services					
My organization supports continued professional development around clinical services					
My organization "synchs" medications so that patients can pick all medications up at one time					

39. Do you have any other comments or ideas that you would like to share?