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Evaluating Pennsylvania Pharmacists' Provision of Community-based Patient Care Services to Develop a Statewide Practice Network

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Keywords: Medication Therapy Management (MTM), network, statewide survey, cognitive services, pharmacy services

Abstract

Objective: To identify and describe Pennsylvania pharmacists who currently provide or are interested in providing community-based patient care services and are interested in joining a statewide practice network. **Design:** Cross-sectional survey. **Setting:** February to June 2009 in Pennsylvania. **Participants:** 1700 pharmacists. **Intervention:** Mailed and electronic survey. **Main outcome measures:** Number and geographic location of pharmacists providing or interested in providing community-based patient care in Pennsylvania. Description of patient care documentation methods; physical space; services provided; perceived barriers to providing patient care; training needs; and interest in joining a statewide practice network. **Results:** The final analysis included data from 1700 pharmacists. Approximately one-third of pharmacists (n=554) were providing patient care services to community-based patients. Most were routinely documenting (67.5%) and many had a semi-private or private space to provide care. MTM and immunizations were the most common services provided. Respondents reported the most significant barrier to providing MTM, diabetes education, and smoking cessation education was time constraints, whereas training was a barrier for immunization provision. Most pharmacists were not being compensated for patient care services. Of the 869 pharmacists interested in joining a statewide network, those providing care were more interested in joining than those who were not (70.8% vs. 43.8%, $p < 0.001$). **Conclusion:** Pennsylvania pharmacists are interested in providing community-based patient care services and joining a statewide practice network focused on providing community-based patient care services. This research serves as a foundation for building a pharmacist practice network in Pennsylvania.

Introduction

Helping patients manage their medications is a central theme found in several national quality standards for healthcare.¹ The mandate requiring prescription drug plans (PDPs) to offer

medication therapy management (MTM) programs to eligible Medicare beneficiaries has brought even more attention to this issue.^{2,3} When asked about which practitioners should coordinate and provide MTM, purchasers, consumers, and unions, identified the "need [for a] critical mass of qualified pharmacists for this emerging field."¹

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Since Medicare Part D took effect in 2006, pharmacists have worked to determine best practices for delivering MTM to community-based patients while continuing to provide traditional dispensing services.⁴⁻⁶ Although the significance of pharmacists' enhanced patient care activities is clear⁷⁻¹², many pharmacists have been limited in their ability to provide MTM and other services due to inconsistent compensation.¹³ In reviewing the literature, it is apparent that most of the financially viable pharmacist practices are located within states that have successfully partnered key stakeholders to secure state-wide payment for community-based patient care services. These stakeholders usually consist of colleges or schools of pharmacy, state pharmacy organizations, and networks of pharmacists.¹⁴ Well-known examples of these partnerships exist in Iowa, Minnesota, North Carolina, Wisconsin, and Connecticut.^{9,12,14-17}

In Pennsylvania, two of these stakeholders have partnered with the goal to secure statewide compensation for pharmacist provision of community-based patient care services. Through the leadership of faculty at the University of Pittsburgh School of Pharmacy, the seven colleges and schools of pharmacy in Pennsylvania came together to develop a grant-funded state-wide training program called the "Pennsylvania Project" (www.papharmacistcare.com) that provides pharmacists in Pennsylvania with the skills needed to develop patient care practices. Through these efforts, the schools engaged the Pennsylvania Pharmacists Association (PPA) and initiated preliminary discussions with state-wide payers regarding the establishment of contracts for pharmacist-provided community-based patient care services. However, these payers needed to know that there are enough pharmacists to cover the geographic expanse of Pennsylvania and that the care provided to patients would be consistent in all communities before considering any contracts. Understanding that we have enough pharmacists willing and able to serve the needs of patients is a critical first step in the formation of a pharmacist practice network and subsequently, the provision of sustainable community-based patient care services in Pennsylvania.

Objective

The main objective of this research study was to identify the number and geographic location of pharmacists within the Commonwealth of Pennsylvania who currently provide or are willing to provide community-based patient care services. Additionally, we endeavored to describe the specific services that are currently being provided, determine perceived barriers to providing these services, and assess interest in joining a statewide practice network.

Methods

Survey Instrument Development

A survey was created on paper and within a commercial web-based survey tool (*Survey Monkey*). For the purposes of this survey, the term "community-based patients" was defined as "those patients who receive services in a community pharmacy and/or those patients found in community settings including, but not limited to: physician offices, institutional-based outpatient clinics, underserved programs, faith based clinics, nursing homes, and non-inpatient based pharmacies." The term patient care services was defined as "medication therapy management, immunizations, diabetes education, smoking cessation education, other patient chronic disease associated education, etc." Specifically, the survey inquired about pharmacists' existing patient care services: types of services provided, documentation methods, physical space available, utilization of patient appointments, perceived barriers to service provision, and training needs. In addition to collecting these data, pharmacists were asked if they wanted to join a statewide practice network and could submit their contact information to be forwarded to PPA.

The survey was reviewed by faculty at the University of Pittsburgh School of Pharmacy, the executive director of PPA, the PPA Network Taskforce, and the experiential learning directors from the seven schools of pharmacy in Pennsylvania. The survey was piloted by 12 pharmacists who provided feedback. The final survey is provided at the end of this article. This study was approved by the University of Pittsburgh Institutional Review Board.

Recruitment Strategy and Data Collection

Our intent was to reach every pharmacist licensed and residing in Pennsylvania using a variety of methods. First, we obtained a list of 19,774 pharmacists licensed by the Pennsylvania State Board of Pharmacy from PPA. The paper survey, with an accompanying letter from the experiential learning directors of the seven schools of pharmacy in Pennsylvania in support of this project, was mailed to the 14,871 pharmacists who resided within Pennsylvania. A follow-up postcard reminder was sent approximately one week after the initial mailing to the pharmacists. To increase response from community-based practitioners, we also sent a survey reminder to a random sample of community pharmacies in Pennsylvania, using the six Pennsylvania Department of Health regions as our sampling frames. The survey was also completed by interested pharmacists at the PPA mid-year, Lancaster County Pharmacy Association, and Allegheny County Pharmacy Association (ACPA) meetings. Additionally, each of the seven schools of pharmacy in Pennsylvania e-mailed the *Survey Monkey* link to faculty, preceptors, and alumni. The ACPA and PPA also e-mailed the

Survey Monkey link to their member and non-member e-mail list serves. Two follow-up reminder e-mails were sent to encourage a greater response.

Paper survey responses were entered into a database by staff from the School of Pharmacy's Program Evaluation and Research Unit. When applicable, pharmacist contact information was separated out for delivery to PPA so that investigators were provided anonymous survey data.

Data Analysis

Descriptive statistics were used to summarize survey responses. Additionally, Chi-square analyses were used to evaluate the relationship between the provision of patient care services and the following variables: job position, graduation year, whether the pharmacist served as a preceptor, gender, hours worked per week, and interest in joining a statewide practice network. All analyses were performed using SPSS Version 18.0 (SPSS Inc., Chicago, IL). All p values ≤ 0.05 were considered significant.

For data analysis purposes, we categorized "chain" pharmacy practice as those pharmacists who selected only one or more of the following as their practice site: chain, grocery store, mass merchandiser, and "outpatient" pharmacy practice as those pharmacists who selected only one or more of the following: outpatient clinic, physician office, free-care clinic, underserved clinic, community health center. We grouped graduation years based on the time periods where different entry-level pharmacy degrees were offered in Pennsylvania. Before 1971 represents the 4-year degree, 1971-2000 represents the 5-year Bachelor of Pharmacy degree, and 2001 or later represents the entry level Doctor of Pharmacy degree.

Results

We received a total of 2698 survey responses (1335 online, 1363 paper). To ensure that all surveys included in the final analysis were from pharmacists practicing in Pennsylvania, we excluded responses that did not include a zip code ($n=952$) or whose job zip codes indicated that the pharmacist practiced solely outside of Pennsylvania ($n=38$). Those who did not answer the first survey question which asked about current provision of patient care services were also excluded ($n=8$); this resulted in 1700 pharmacists which were included in the final analysis. Figure 1 contains a map of survey respondents according to counties in Pennsylvania.

Pharmacist Characteristics

Of these 1700 pharmacists, the most common practice sites represented were chain (33.8%), hospital (28%), and independent pharmacy (24.1%). As seen in Table 1, the

majority of pharmacists were female (54.4%), graduated between 1971 and 2000, were not preceptors (63.5%), worked full-time (77.1%), and were staff pharmacists.

Provision of community-based patient care services

Approximately one-third of pharmacists ($n=554$) were providing patient care services to community-based patients. Outpatient pharmacists were most likely to provide patient care services (68%), followed by independent pharmacists (52.2%), and finally chain pharmacists (43.7%). Of interest, 5.6% of hospital pharmacists were providing community-based patient care services. While the majority of pharmacists were not providing patient care services, 83.2% of those not currently providing services would be willing to provide them in the future or if their practice setting changes.

Pharmacist characteristics influencing the provision of patient care services are shown in Table 2. More recent graduates (2001 or later) were more likely to provide patient care services as compared to graduates of previous years ($p = .003$). Additionally, preceptors and those working ≥ 31 hours per week were more likely to provide patient care services as compared to non-preceptors and those working ≤ 30 hours per week ($p < .001$ for both).

The majority of pharmacists provide services as part of the workflow of the dispensing process and care for 1-5 patients per week. For those pharmacists providing patient care services separately from the dispensing process, the majority provide services during scheduled patient appointments with most having 1-5 individual scheduled patient appointments per week. MTM and immunizations were the most common services provided both during the workflow and in appointments. Many pharmacists had a semi-private or private space at all their practice sites (39.1%). Additionally, 205 pharmacists (37.9%) had space at some of their practice sites. Of note, 23% had no space to provide care.

As shown in Table 3, most of the pharmacists providing immunizations were compensated all of the time whereas those providing MTM, diabetes education, and smoking cessation education were not. The most common methods through which pharmacists were compensated for services include Medicare Part D programs ($n=187$, 33.8%), patient self-pay ($n=155$, 28%), Mirixa ($n=117$, 21.1%), and medical insurance ($n=77$, 13.9%).

Most pharmacists (67.5%) were routinely documenting as a patient care note or consultation letter; about half ($n=147$, 41.6%) gave a document to both the patient and the physician.

Sixty percent of pharmacists (n=320) who are currently providing patient care services had working relationships with physicians in their community. "Working relationships" was defined in the survey as "ability to discuss a patient's medication-related needs outside of the traditional dispensing process (e.g. adjustment in a patient's medication regimen)." The majority (n=164, 51.3%) had working relationships with 2-5 physicians, followed by 40.7% (n=129) who had relationships with ≥6 physicians, and only 7.5% (n=24) who had a relationship with 1 physician.

Barriers

For MTM, diabetes education, smoking cessation, and immunizations, pharmacists who work with community-based patients were asked to select one of the following as their most significant barrier/challenge to providing each service: compensation, training, time to provide care, the need for additional pharmacist(s), or other. The most significant barrier/challenge to providing MTM, diabetes education, and smoking cessation education was time constraints whereas training was the primary barrier for the provision of immunizations.

Barriers to providing patient care were evaluated for chain, outpatient, and independent pharmacists regardless if currently providing patient care (Table 4). Time was the biggest barrier across all these practice environments. Space was more of a concern for chain pharmacists whereas the need for additional pharmacist(s) was more of a concern for outpatient pharmacists. Compensation—a barrier across all practice environments—was more of a concern for independent pharmacists compared with chain and outpatient pharmacists.

Joining a statewide practice network

Out of the 1700 survey respondents known to be licensed and residing in PA, 869 (51%) were interested in joining a statewide network. As expected, those who provided care were more interested in joining than those who did not (70.8% vs. 43.8%, $p < 0.001$).

Discussion

Building a statewide practice network requires an understanding of pharmacists' characteristics, services, availability, and resource needs. We found that more recent graduates were more likely to provide patient care services. This was expected and correlates with the establishment of the entry-level Doctor of Pharmacy degree. It was also expected that outpatient pharmacy had the highest percentage of respondents providing patient care services—since this is generally their primary role—as compared to

chain or independent settings where time has to be divided between dispensing and providing patient care services.

It is unlikely that all of the APhA/NACDS Core Elements^{18,19} for MTM were consistently employed by all pharmacists as many noted that these services were provided during the workflow of the dispensing process. Additionally, pharmacists could have interpreted diabetes education or smoking cessation education to mean counseling a patient when dispensing a prescription for a blood glucose meter or nicotine replacement therapy as opposed to the more comprehensive education that is common with collaborative practice agreements/protocols.

Formal immunization training is required to apply for and obtain a pharmacist immunization license in Pennsylvania. It is also important to note that in Pennsylvania, collaborative drug therapy management was previously limited by law to only to those pharmacists working in institutional settings but has now been expanded to all practice settings with the recent passage of PA Act 29²⁰ in June 2010. While a majority of pharmacists currently providing services have working relationships with physicians in their community, we expect this number to grow based on this change in the law.

Our survey shows that pharmacists are documenting and communicating with physicians when providing patient care services. Based on the question about space to provide care, collectively, pharmacists have the infrastructure available at their workplaces to be HIPAA compliant when providing patient care services. Pharmacists are available to offer services as part of the workflow or in separate appointments. Payers would likely be considering all of these components in their determination of establishing contracts with pharmacists.

Pharmacists reported that many services are being provided with limited or no compensation. The most likely reason for inconsistent compensation is the lack of a pharmacist practice network. Payers need to know that there are enough pharmacists to serve their patient population along with services offered and availability before considering contracts. This then leads to the question: Does the need for services in the Commonwealth of Pennsylvania match the estimated capacity of pharmacists to provide care?

In terms of total population, Pennsylvania ranks sixth in the nation²¹ with an estimated 12.7 million people, of which roughly 15% or 1.9 million are age 65 and older.²² The Lewin Group report, commissioned by the American Pharmacists Association to examine existing models of MTM services, is the best tool we have at this time for estimating need for at

least the 65 years of age and older Medicare population. The report estimates that 29.3% of this population would qualify for a basic medication therapy review (MTR) while 3% would qualify for a more comprehensive MTR.²³ Based on these estimates, 556,700 people would qualify for a basic MTR while 57,000 would qualify for a comprehensive MTR, which is a total of 613,700 Pennsylvanians age 65 and older who are in need of MTM services.

There are a total of 1489 Pennsylvania pharmacists that are currently providing or willing to provide patient care services in the future. Pharmacy experts have estimated that pharmacists working in a patient care practice could provide care for a minimum of 10-15 patients per day, which translates to a pharmacist having a panel of 2000 patients at any time.²⁴ Thus, it is feasible to estimate the capacity of pharmacists in Pennsylvania to provide patient care services. Assuming pharmacists working full-time could care for approximately 2000 patients per year while those working part-time could care for 1000 patients per year, this would calculate to be 2,663,000 patients that could be cared for by Pennsylvania pharmacists. Even with a conservative estimate of 25% of those pharmacists who indicated they are willing/able to provide care, we would be able to meet the needs of the population over the age of 65. We also recognize that as pharmacists have a greater ability to care for patients through contracts where they are reimbursed for services, the number of pharmacists willing/able to participate will grow as we have seen nationally with immunizations.²⁵ Our research demonstrates the capacity in Pennsylvania for creating a pharmacist practice network with sufficient practitioners and geographic service coverage to meet the needs of large payers serving patients aged 65 years and older across the state.

Understanding the barriers to care provision is necessary in order to design educational programming to meet pharmacists' needs. Additionally, these results are important for PPA to connect those pharmacists who see training as a rate-limiting step to the provision of patient care services with the necessary training programs.

This research provides substantial evidence that there is interest among Pennsylvania pharmacists to provide community-based patient care services and join a statewide practice network. Our finding that almost 900 pharmacists show interest in a network is support for PPA to pursue this unmet need for Pennsylvania. As mentioned previously, states that have been successful in obtaining reimbursement have had a network. This research is the first statewide survey to our knowledge that is attempting to collect data to

form a statewide pharmacist practice network focused on providing community-based patient care services.

Limitations

By limiting the survey to only those pharmacists licensed and residing in Pennsylvania, we realize we may have missed pharmacists who reside in a border state but work in Pennsylvania. Many surveys were excluded because respondents left their zip codes blank. The multiple methods of collecting survey data may also be considered a limitation. Barriers and training needs identified may not be generalizable to pharmacists in other states due to differences in state laws. Additionally, there may be more Pennsylvanians in need of MTM services with changes in Medicare Part D criteria since the time of this writing.

Conclusion

Networks can be a source of awareness, innovation, and knowledge transfer.²⁶ Thus, we would expect the network in Pennsylvania to be a foundation for increased pharmacist-provided patient care. This research has already provided evidence to the Pennsylvania Pharmacists Association Executive Board which has approved the formation of the Pennsylvania Pharmaceutical Care Network (PCCN). By creating a database of Pennsylvania pharmacists who are either currently providing community-based patient-care services or would like to provide these services, providers will have an important tool for negotiating contracts with potential payers. Our approach to this research project could serve as a model for other states and thus benefit community pharmacy practice nationally.

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Table 1: Pharmacist characteristics^a

Characteristic		Results, n (%)
Female sex		921 (54.4)
Current preceptor		619 (36.5)
Graduation year	Before 1971	165 (9.7)
	1971-2000	1158 (68.4)
	2001 or later	371 (21.9)
Hours worked per week	≤ 30 hrs	384 (22.9)
	≥ 31 hrs	1294 (77.1)
Job position	Staff pharmacist	694 (42.6)
	Pharmacist manager	451 (27.7)
	Agency pharmacist	7 (0.4)
	Faculty	23 (1.4)
	Clinical pharmacist	168 (10.3)
	Patient care or MTM pharmacist	11 (0.7)
	Consultant pharmacist	41 (2.5)
	Other	236 (14.5)

^aTotal n=1700, some pharmacists did not answer every question

Table 2: Provision of community-based patient care services based on pharmacist characteristics

Characteristic		Currently providing services	Not currently providing services	Total	P value ^a
Sex	Male	268 (34.7%)	505 (65.3%)	773 (100%)	.084
	Female	283 (30.7%)	638 (69.3%)	921 (100%)	
Graduation year	Before 1971	37 (22.4%)	128 (77.6%)	165 (100%)	.003
	1971-2000	378 (32.6%)	780 (67.4%)	1158 (100%)	
	2001 or later	138 (37.2%)	233 (62.8%)	371 (100%)	
Preceptor	Yes	286 (46.2%)	333 (53.8%)	619 (100%)	<0.001
	No	268 (24.9%)	809 (75.1%)	1077 (100%)	
Hours worked per week	≤ 30 hrs	97 (25.3%)	287 (74.7%)	384 (100%)	<0.001
	≥ 31 hrs	456 (35.2%)	838 (64.8%)	1294 (100%)	
Job position	Staff pharmacist	179 (25.8%)	515 (74.2%)	694 (100%)	<0.001
	Pharmacist manager	204 (45.2%)	247 (54.8%)	451 (100%)	
	Agency Pharmacist	0 (0%)	7 (100%)	7 (100%)	
	Faculty	12 (52.2%)	11 (47.8%)	23 (100%)	
	Clinical pharmacist	56 (33.3%)	112 (66.7%)	168 (100%)	
	Patient Care or MTM pharmacist	9 (81.8%)	2 (18.2%)	11 (100%)	
	Consultant Pharmacist	15 (36.6%)	26 (63.4%)	41 (100%)	
	Other	52 (22%)	184 (78%)	236 (100%)	

^aP values compared proportions between those providing and not providing patient care services

Table 3: Compensation of patient care services provided by pharmacists

Service	Compensation Rates, n (%) ^{a,b}
Immunizations	All the time: 96 (39.2) Sometimes: 81 (33.1) None of the time: 68 (27.8)
MTM	All the time: 57 (19) Sometimes: 118 (39.3) None of the time: 125 (41.7)
Diabetes Education	All the time: 20 (10.8) Sometimes: 38 (20.5) None of the time: 127 (68.6)
Smoking Cessation Education	All the time: 5 (4.2) Sometimes: 17 (14.3) None of the time: 97 (81.5)

^a Only those pharmacists providing services as part of workflow or by appointment.

^b Statistical analysis was only performed on those responding to this question.

Table 4: Barriers to Service Provision By Practice Site^{a,b,c}

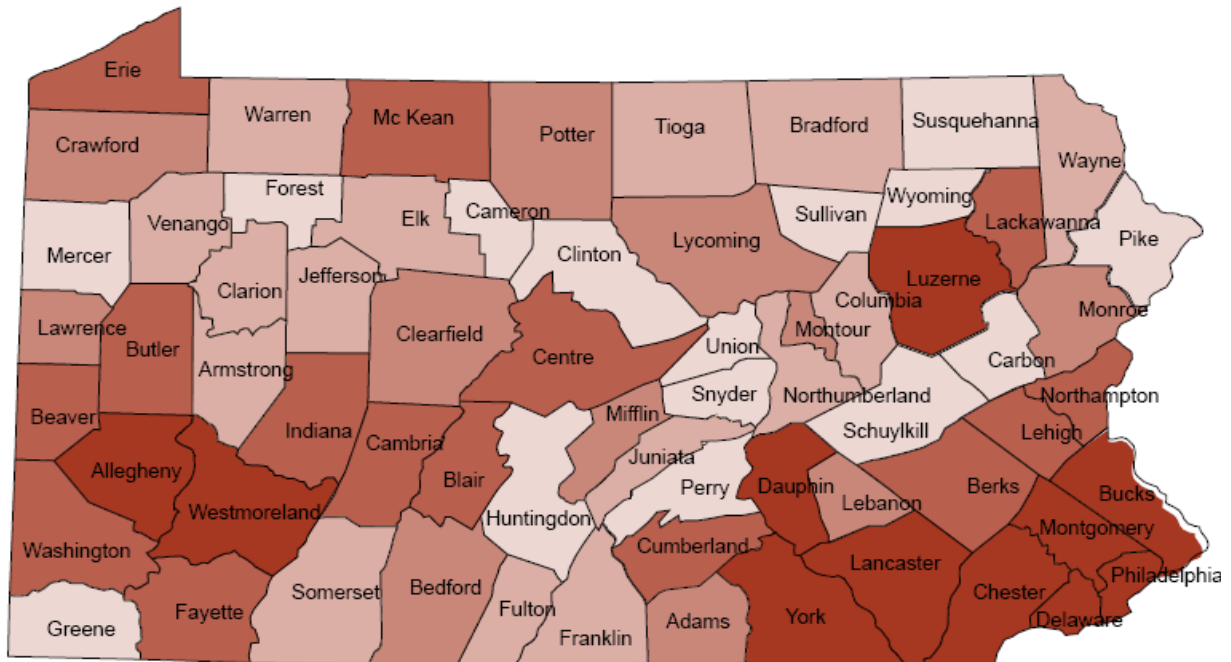
Perceived Service Barriers	Chain (Total n=449)	Outpatient (Total n=25)	Independent (Total n=270)
Compensation	234 (52%)	11 (44%)	168 (62.2%)
Space	247 (55%)	6 (24%)	86 (31.9%)
Time	369 (82%)	16 (64%)	193 (71.5%)
Need for additional pharmacist(s)	234 (52%)	14 (56%)	94 (34.8%)
Need for additional non-pharmacist staff	141 (31%)	4 (16%)	27 (10%)
Management support	181 (40.3%)	5 (20%)	19 (7%)
Physician acceptance	79 (17.6%)	4 (16%)	60 (22.2%)
Patient acceptance	75 (16.7%)	5 (20%)	48 (17.8%)
Training Needs			
Provide patient care	151 (33.6%)	5 (20%)	72 (26.7%)
Build care practice	152 (33.9%)	5 (20%)	85 (31.5%)
Receive compensation	163 (36.3%)	6 (24%)	107 (39.6%)
Other	8 (1.8%)	none	6 (2.2%)

^a Pharmacists were able to select more than one barrier

^b These pharmacists selected solely chain, outpatient, or independent as their practice environments

^c Reported as number of pharmacists from practice site reporting the barrier (%)

Figure 1: Map of Pennsylvania survey respondents according to counties



Respondents were able to submit up to three zip codes where they work as a pharmacist. If a respondent indicated more than one zip code, he/she was added to the total for each of the counties represented by those zip codes. If a respondent indicated more than one zip code in a county, they were counted only once for that county. This color-coded map represents the number of respondents. Color coding is: 1 to 5, 6 to 10, 11 to 19, 20 to 39, and 42 to 348 respondents (darker shades represent higher numbers). Philadelphia (134), Montgomery (146) and Allegheny (348) had the highest counts.

The Network Project

We want to hear from all pharmacists licensed in Pennsylvania, regardless of practice setting. Even if you are not currently providing services to patients in community settings, we would like to hear your point of view.

The purpose of this research study survey is to identify pharmacists licensed in Pennsylvania who:

- Currently provide or are interested in providing community-based patient care services (e.g. Medication Therapy Management, immunizations, diabetes education, etc.)
- Are interested in joining a statewide pharmacist practice network focused on providing community-based patient care services

You have received this survey because you are a licensed pharmacist in Pennsylvania. If you are willing to participate, this survey will take approximately 10 minutes to complete.

- The first part of this survey centers on your current role or interest in providing patient care services including: documentation, physical space, patient appointments, barriers to providing care, and training.
- The second part of this survey will ask about respondent demographics and your interest in joining a statewide practice network coordinated by the Pennsylvania Pharmacists Association (PPA).

Your participation is voluntary, and you may withdraw from this survey at any time. You may skip questions if you are unsure or uncomfortable about your answer. You will not receive compensation for your participation.

Your responses will remain anonymous. The collection of this information is for research purposes only. Individual names or contact information will not be produced in any publication. Data collected will be summarized for presentation at any relevant scholarly meetings and in any relevant scholarly publications.

The primary objective of this research study is to identify the number and geographical locations of pharmacists who currently provide or who are interested in providing community-based patient care services and specific services Pennsylvania pharmacists can provide. Additionally, the survey hopes to elucidate the resources pharmacists need to provide these services. The results will serve as baseline data that PPA can use to coordinate a community-based pharmacist practice network. Through this network, PPA can connect pharmacists with training resources and can work with payers towards achieving consistent reimbursement for pharmacist-provided community-based patient care services.

There are two ways to submit this survey:

1. Complete the enclosed paper copy and return in the enclosed postage-paid return envelope.
2. Complete the survey on-line at:

<http://www.pharmacy.pitt.edu/networkproject>

This study is being conducted by Maria Osborne, PharmD at the University of Pittsburgh School of Pharmacy. She can be reached at mosborne@pitt.edu if you have any questions. Thank you for your participation.



The Network Project

For the purposes of this survey, consider the term "community-based patients" to mean those patients who receive services in a community pharmacy and/or those patients found in community settings including, but not limited to:

- physician offices
- institutional-based outpatient clinics
- underserved programs
- faith based clinics
- nursing homes
- non-inpatient based pharmacies

1. Are you currently providing patient care services (e.g. Medication Therapy Management, immunizations, diabetes education, smoking cessation education, other patient chronic disease associated education, etc.) to community-based patients?

- Yes (please go to question 2)
- No, because: (Please choose WHICH ONE of the statements below best explains your work environment, then select your answer below that statement.)
 - I work in the community and I do not currently have an opportunity to provide patient care services, but
 - I am willing to provide patient care services in the future (Please Go to Question 14)
 - I am NOT willing to provide patient care services (Please Go to Question 14)
 - I work in the community and I do currently have an opportunity to provide patient care services, and
 - I am willing to provide patient care services in the future (Please Go to Question 14)
 - I am NOT willing to provide patient care services (Please Go to Question 14)
 - I only work with institution-based patients,
 - However, I would be willing to provide patient care services to community-based patients if my practice setting changes (Please Go to Question 16)
 - I would NOT be willing to provide patient care services to community-based patients if my practice setting changes (Please Go to Question 16)
 - I do not work in a direct patient care environment (e.g. I work in managed care, pharmaceutical industry, mail order, at a college or university setting, etc.)
 - However, I would be willing to provide patient care services to community-based patients if my practice setting changes (Please Go to Question 16)
 - I would NOT be willing to provide patient care services to community-based patients if my practice setting changes (Please Go to Question 16)

2. Are you currently providing patient care services (e.g. Medication Therapy Management, immunizations, diabetes education, smoking cessation education, other patient chronic disease associated education, etc.) as part of the workflow of the dispensing process?

- Yes (Please Go to Question 3)
- No (Please Go to Question 5)



3. Which of the following services do you provide as part of the workflow of the dispensing process? (Please check all that apply.)

Immunizations (18+ years of age)

Medication Therapy Management

Diabetes education

Smoking cessation education

Other:

4. On average, to how many patients do you provide any of the patient care services listed above as part of the workflow of the dispensing process per week?

1-5

6-10

11-20

21-30

30+

5. Are you currently providing any of the patient care services listed above separately from the dispensing process?

Yes (Please select the most appropriate answer below.)

During scheduled patient appointments

During office hours (Please Go to Question 8)

During scheduled patient appointments and office hours

No (Please Go to Question 8)

6. For which of the following services do you schedule individual patient appointments? (Please check all that apply.)

Immunizations (18+ years of age)

Medication Therapy Management

Diabetes education

Smoking cessation education

Other:

7. On average, how many individual, scheduled patient appointments do you have per week?

1-5

6-10

11-20

21-30

30+

Please continue to the next page



8. At how many of your practice sites do you have a semi-private or private space (where discussions with patients can't be overheard so as to maintain patient confidentiality) available to meet individually with patients and their caregivers?

- None
- Few
- Some
- Most
- All

9. Do you routinely document your patient care services as a patient care note or consultation letter?

- Yes - I give a document to:
 - the patient
 - the physician
 - the patient and the physician
 - no one (I only keep a document for my records)
- No

10. Do you have working relationships with physicians in your community who you can discuss a patient's medication-related needs outside of the traditional dispensing process (e.g. adjustment in a patient's medication regimen)?

- Yes - I have a working relationship with:
 - 1 physician
 - 2-5 physicians
 - 6-10 physicians
 - over 10 physicians
- No

Please continue to the next page



11. How often are you being compensated for your patient care services?

None of the time for: (Please check all that apply.)

- Immunizations (18+ years of age)
- Medication Therapy Management
- Diabetes education
- Smoking cessation education
- Other:

Rarely for: (Please check all that apply.)

- Immunizations (18+ years of age)
- Medication Therapy Management
- Diabetes education
- Smoking cessation education
- Other:

Sometimes for: (Please check all that apply.)

- Immunizations (18+ years of age)
- Medication Therapy Management
- Diabetes education
- Smoking cessation education
- Other:

Most of the time for: (Please check all that apply.)

- Immunizations (18+ years of age)
- Medication Therapy Management
- Diabetes education
- Smoking cessation education
- Other:

All of the time for: (Please check all that apply.)

- Immunizations (18+ years of age)
- Medication Therapy Management
- Diabetes education
- Smoking cessation education
- Other:

Please continue to the next page



12. Who has compensated and/or currently compensates you for your patient care services? (Please check all that apply.)

- Medicare Part D [provide plan name(s)]
- PA State Medicaid
- Mirixa
- Outcomes
- APhA 10 City Challenge (Living My Life)
- Employer-based, disease management program
- Patient self-pay
- Medical insurance [provide plan name(s)]
- Non-Medicare Part D pharmacy insurance [provide plan name(s)]
- Other:

13. If you were provided compensation for individual patient appointments, on average how many patients could you see at your practice site(s) per week?

- 1-5
- 6-10
- 11-20
- 21-30
- 30+

14. What barriers prevent you from providing direct patient care services or limit your ability to provide these services? (Please check all that apply.)

- Compensation
- Space to provide care
- Time to provide care
- Additional pharmacist(s)
- Additional non-pharmacist staff
- Support from upper management/administrators
- Physician acceptance
- Patient acceptance
- Other
- Training on how to: (Please check all that apply)
 - provide patient care
 - build a patient care practice
 - receive compensation
 - other

Please continue to the next page



15. For each of the patient care services listed below, please check the box corresponding to your most significant barrier/challenge to providing that service:

Immunizations (18+ years old):

- compensation
- training
- time to provide care
- additional pharmacist(s)
- other

Smoking Cessation Education:

- compensation
- training
- time to provide care
- additional pharmacist(s)
- other

Medication Therapy Management:

- compensation
- training
- time to provide care
- additional pharmacist(s)
- other

Other (please list):

- compensation
- training
- time to provide care
- additional pharmacist(s)
- other

Diabetes Education:

- compensation
- training
- time to provide care
- additional pharmacist(s)
- other

16. Please check all of the following practice environments where you work:

- | | |
|--|---|
| <input type="checkbox"/> Chain pharmacy | <input type="checkbox"/> Community health center |
| <input type="checkbox"/> Grocery store pharmacy | <input type="checkbox"/> Hospital pharmacy |
| <input type="checkbox"/> Mass-merchandise pharmacy | <input type="checkbox"/> Health system pharmacy |
| <input type="checkbox"/> Independent pharmacy | <input type="checkbox"/> Veterans' Administration |
| <input type="checkbox"/> Outpatient clinic | <input type="checkbox"/> Mail order pharmacy |
| <input type="checkbox"/> Physician office | <input type="checkbox"/> Managed care |
| <input type="checkbox"/> Free-care clinic | <input type="checkbox"/> College or university |
| <input type="checkbox"/> Underserved clinic | <input type="checkbox"/> Other <input type="text"/> |
| <input type="checkbox"/> Long-term care | |

17. What is your job position or title?

- Staff pharmacist
- Pharmacist manager
- Agency pharmacist
- Faculty
- Clinical pharmacist
- Patient care or MTM pharmacist
- Consultant pharmacist
- Other

Please continue to the next page



18. In what zip code(s) do you work as a pharmacist?

19. What year did you graduate from pharmacy school?

before 1950

1950-1960

1961-1970

1971-1980

1981-1990

1991-2000

2001-2008

20. Are you currently a preceptor for pharmacy students from a college or school of pharmacy?

Yes

No

21. What is your gender?

Male

Female

22. Approximately how many hours per week do work as a pharmacist?

1-10

11-20

21-30

31-40

40+

23. The Pennsylvania Pharmacists Association (PPA) would like to coordinate a statewide pharmacist practice network, focused on providing community-based patient care services. The network would be a collection of pharmacists' names, practice sites, and contact information, along with what community-based patient care services each pharmacist currently provides or is interested in providing. Additionally, PPA could create a resource tool to help pharmacists, physicians, payers, and patients identify what services individual pharmacists can provide and at what practice site(s) these services are provided. Would you be interested in joining a statewide practice network, focused on providing community-based patient care services, coordinated by PPA?

Yes (Please complete the following page.)

No (Thank you for your time and cooperation. Please submit the survey.)

Please continue to the next page



If you are interested in joining the statewide pharmacist practice network, provide your contact information as consent for PPA to contact you. PPA will only use your information for the purpose of forming the statewide network, and will not share your contact information with anyone else. Then, you can either:

- Submit the survey so that your individual survey responses are anonymous. If you choose this option, your survey responses and contact information will be separated upon receipt by a third party who is not an investigator on this research protocol. Your contact information will then be forwarded on to PPA.
- Submit the survey so that your individual survey responses will be linked to your contact information by answering yes to the question on the page with your contact information. This will help PPA focus on the resource needs of individual pharmacists and expedite the formation of the network. If you choose this option, a third party who is not an investigator on this research protocol will make a copy of your survey responses and contact information and forward these on to PPA. Only the survey responses, not your contact information, will be forwarded to the investigators on this research protocol. PPA will not share your contact information or survey responses with anyone else.

Providing my contact information below signifies my consent for the Pennsylvania Pharmacists Association (PPA) to contact me about a pharmacist practice network.

My contact information is as follows:

Name (First MI Last):

Street Address:

City: State: Zip Code:

Phone: () - home cell work other (circle one)

Email: home work

Do you give permission to the University of Pittsburgh to share your individual survey data linked to your contact information with the Pennsylvania Pharmacists Association (PPA)?

- Yes (Thank you for your time and cooperation. Please submit the survey.)
- No (Thank you for your time and cooperation. Please submit the survey.)

