Physician Assistants: Filling the void in rural Pennsylvania

A feasibility study

Prepared for
The Office of Health Care Reform

By
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This report evaluates the feasibility of extending the roles that Pennsylvania’s Physician Assistants play in rural medicine based on the criteria of cost, quality of care, and legal issues.
Executive Summary

Residents of rural Pennsylvania have difficulty accessing quality medical care due to the physician shortage in rural areas. Some have suggested extending the role that Physician Assistants (PAs) play in rural medicine to compensate for the lack of physicians. This report will evaluate the feasibility of using PAs in rural Pennsylvania to fill in the health care void. The feasibility will be evaluated against the criteria of cost, quality of care, and legalities associated with using PAs.

The average physician’s salary is at least twice that of a PA’s salary. Similarly, the total expense associated with physician-related malpractice paid claim costs are nearly 947 times greater than the PA-related malpractice paid claims. Overall, the extended use of PAs could actually help reduce the cost of health care in rural Pennsylvania.

PAs are qualified to serve as medical providers. They are educated in a PA program that prepares them for the medical practice. Likewise, PAs generally possess good communication skills that enable them to better serve their patients. Most PAs are trained to practice primary care medicine, while some are trained in specific subspecialties. Perhaps more importantly, PAs are willing to work in medically underserved areas such as rural Pennsylvania because of the freedom of practice that it affords.

In order to establish the feasibility of extending the practice of PAs in rural Pennsylvania, one must demonstrate that his/her recommendations fall within the state’s legal boundaries. The American Academy of Physician Assistants and the Pennsylvania State Board of Medicine enforces two sets of regulations.

In conclusion, I assess that it is feasible to extend the roles that Pennsylvania’s PAs play in rural medicine. I close with a list of recommendations that will facilitate the implementation of strategies to help expand the current role of Pennsylvania’s PAs.

1. Make Pennsylvania a PA-friendly state.
2. Promote the merit and quality of the care provided by PAs.
3. Encourage physicians to consider taking on more PAs under their supervision.
4. Support physicians’ decisions to allow PAs a broader scope of practice.
5. Defend legislation that protects the rights that PAs currently have in Pennsylvania.
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Introduction

Problem:

The inequalities and problems associated with medical care have become important issues to the residents of Pennsylvania in recent years. Much of the focus has been on the consequences of the rising medical malpractice insurance premiums. One specific concern is that current and future physicians in Pennsylvania will begin leaving the state to practice medicine in other states with lower malpractice premiums (8). This concern is well substantiated, and some people have begun to realize that areas of Pennsylvania are already experiencing a physician shortage.

Specifically, the residents of rural communities are deeply influenced by this current physician shortage and have faced limited access to quality medical care (8). Figure 1 below indicates that the majority of counties in Pennsylvania are classified as rural areas; therefore, the physician shortage is affecting nearly the entire state. (See Appendix A for a description of how Pennsylvania defines rural and urban counties.)

Figure 2: Distribution of rural counties in Pennsylvania
Although some existing programs, like the Physician Shortage Area Program (PSAP) sponsored by Jefferson Medical College in Philadelphia, do strive to alleviate the problems caused by the physician shortage in rural areas, still more help is needed (6). (See Appendix B for a description of the PSAP.) In short, we need more medical care providers to practice in rural areas; however, many physicians are reluctant and even unwilling to practice medicine in rural communities because the salaries are significantly lower compared to those in urban areas. Nonetheless, Pennsylvania’s rural residents require and deserve access to quality medical care.

Some have suggested the use of physician assistants (PA) and other health care personnel to fill in the void caused by the lack of physicians in these rural communities. Although Pennsylvania employs a relatively large number of practicing PAs compared to other states, PAs are not being used to their maximum capacity (1). Specifically, rural residents would benefit if Pennsylvania expanded the role of PAs in the practice of medicine in rural areas. Is it feasible, though, to allow physician assistants to take on a more active role in medical care in rural Pennsylvania to compensate for the apparent physician shortage?

Purpose and Methodology:

In this report, I will consider the feasibility of allowing physician assistants (PAs) to assume more active roles in health care in rural Pennsylvania. I will utilize three criteria to help evaluate the feasibility of the use of PAs to lighten the burden of the physician shortage: the cost associated with using PAs, the quality of care provided by PAs, and the legalities of using PAs. In addition, I will make recommendations based on the findings and conclusions of this report.

In order to perform this research, I will consider information provided by the American Academy of Physician Assistants (AAPA), by the Center for Rural Pennsylvania, by Pennsylvania’s State Board of Medicine, and by other relevant sources.

Organization of the report:

This report will be divided into four sections including “Feasibility Criteria”, “Evaluation of Criteria”, “Conclusion”, and “Recommendations”. The section “Feasibility Criteria” will explain the significance and application of each of the three
criteria used in this report to evaluate the use of PAs in rural medicine. In the “Evaluation of Criteria”, I will evaluate the feasibility of using PAs against the three criteria mentioned. “Conclusion” will present the conclusion of this report: that it is feasible to expand the role of PAs to help moderate the effects of the physician shortage in rural areas. Finally, the “Recommendations” section will suggest courses of action that will enable Pennsylvania to expand the PA’s role in rural medical care.

Feasibility Criteria

The following criteria will be used in the evaluation of the feasibility of using PAs to combat the physician shortage in rural Pennsylvania. Each criterion is chosen based on its relevance and importance to the issue.

Criteria 1- The cost associated with using PAs:

The cost associated with using PAs includes both the salary that PAs receive, as well as, the medical malpractice claim payments that they incur. These figures will be compared to the corresponding costs associated with licensed physicians in order to see the contrasts.

Criteria 2- The quality of care provided by PAs:

The quality of the care that PAs provide will be evaluated on four levels: the education that PAs receive, the skills that they possess, the scope of their practice and knowledge, and their availability and willingness for rural medicine.

Criteria 3- The legalities of using PAs:

Finally, the evaluation will conclude with a summary of the current legalities regarding using PAs in medical care. I will consider the standards and regulations set forth by both the AAPA and by the Pennsylvania State Board of Medicine.
Evaluation of Criteria

The cost associated with using PAs:

One of the major concerns in Pennsylvania is that medical care is getting to be so expensive. The high costs associated with medicine and malpractice are both partially responsible for the physician shortage in the first place. Therefore, it is very important that any changes to the current system help to lower those costs. The extended use of PAs in rural communities in Pennsylvania will help reduce the costs associated with the practice of medicine.

The typical salary of a PA is much lower than the average salary of a physician. Table 1 below compares the average yearly salary of PAs and physicians in the United States (9,10). Likewise, Figure 2 visually displays the disparities that exist between physician and PA salaries.

<table>
<thead>
<tr>
<th>Medical Provider</th>
<th>Median Annual Earnings</th>
<th>Middle 50% Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician*1</td>
<td>$160,000*3</td>
<td>$120,000-$240,000*3</td>
</tr>
<tr>
<td>Physician Assistant*2</td>
<td>$61,910</td>
<td>$47,970-$73,890</td>
</tr>
</tbody>
</table>

*1 Taken from the National Bureau of Labor Statistics, 1998.
*3 After expenses (i.e. malpractice insurance).

Table 1: Comparison of the average annual salaries of Physicians vs. PAs

Figure 2: Difference between Physician and PA earnings
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This data provides the median annual income of all physicians or PAs throughout the country and not just the income of those working in rural areas. Granted, physicians and PAs who work in rural areas tend to make less money than their urban counterparts do. Likewise, the data displayed in the table are from two different years. Nonetheless, the trend is still obvious; physicians make over two times more money per year than do PAs. Therefore, PAs can be used to accomplish some of the same tasks that physicians perform at a reduced cost.

In addition to salary requirements, the high premiums of medical malpractice insurance are also responsible for the increased cost of health care. Many people fear that PAs are much more likely to be involved or implicated in medical liability lawsuits which will ultimately result in even higher malpractice insurance premiums. However, according to information acquired from the National Practitioner Data Bank (NPDB), PAs tend to be involved in fewer malpractice lawsuits than physicians are (5).

In 1998, there were approximately 23 times more practicing physicians than PAs in the United States. Therefore, one would assume that the malpractice claim rates would be about 23 times greater for physicians than PAs (5). However, physician-related malpractice paid claims were nearly 420 times more common than PA-related malpractice paid claims (5). Also, the total physician-related paid claim cost was over 947 times the total PA-related paid claim cost. See Table 2 below for a summary of the malpractice costs incurred by both physicians and PAs.

<table>
<thead>
<tr>
<th></th>
<th>Physicians</th>
<th>PAs</th>
<th>Physician to PA ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number per 100,000 people</td>
<td>272.8</td>
<td>11.7</td>
<td>23.32</td>
</tr>
<tr>
<td>Total Number of Paid Claims</td>
<td>100,750</td>
<td>240</td>
<td>419.79</td>
</tr>
<tr>
<td>Average Dollar Cost of Paid Claims</td>
<td>$188,773</td>
<td>$83,625</td>
<td>2.26</td>
</tr>
<tr>
<td>Total Number of Dollars Paid*1</td>
<td>$19,018,879,750</td>
<td>$20,070,000</td>
<td>947.63</td>
</tr>
</tbody>
</table>

*1 Calculated by multiplying the Total Number of Paid Claims and the Average Dollar Cost of Paid Claims

Data obtained from the National Practitioner Data Bank

Table 2: Malpractice Costs
From the data presented by the NPDB, PAs do not seem to be as much of a medical liability as some may think. In fact, “a relatively small number of malpractice payments are being made of behalf of PAs” (5). The American Medical Association goes as far as saying that “PAs probably hold the potential for being one of the best malpractice tools available” (5).

The quality of care provided by PAs:

Because of the physician shortage, residents of rural communities in Pennsylvania have experienced difficulty obtaining quality medical care. For these residents to get the care that they need, they must have access to qualified medical personnel. In order for it to be feasible to use PAs to fill in the void left by the physician shortage, PAs must be able to provide quality care to their patients.

PAs, like physicians, are required to complete a formal education of medical training. The PA education program does differ, however, from the training that students in medical school receive. According to the AAPA, students are required to complete at least two years of undergraduate science courses before enrolling in a PA training program. Once in the PA program, students spend an additional year studying the basic medical science courses such as anatomy, pharmacology, and physical diagnosing (2). After completing their science training, PAs begin clinical rotations in medical and surgical specialties. The typical PA program lasts for 26 months (2). Following graduation from an accredited PA school, students can then take a certification test that is offered by the National Commission on Certification of Physician Assistants (NCCPA). In order to maintain their certification, PAs must participate in 100 hours of continuing education every two years and must retake the certification exam every six years (3).

During their formal education, PAs are taught many valuable skills that prove to be very useful in the practice of medicine. On the one hand, PAs are trained in the medical model of diagnosing illnesses like physicians are (4). In most cases, PAs are trained in the clinical and surgical skills that will enable them to work alongside physicians and surgeons. On the other hand, PA training emphasizes the importance of communication with patients. PAs are taught to develop good interviewing skills so that they can administer quality care (5). Because PAs (on average) spend more time talking with their patients, PAs are less likely to be involved in malpractice issues. Also, they
tend to make patients feel like they have received the attention and care that they need (5).

The scope of a PA’s practice and knowledge is broad; they are able to participate in a wide range of medical specialties and techniques. Most PAs are trained to work in the primary care fields such as pediatrics, gynecology, and internal medicine as well as in other subspecialty areas. They are trained to handle many of the same type of cases that a regular physician would see. PAs in most states are also allowed to prescribe medications and perform laboratory procedures. However, every PA is under the supervision of an overseeing physician. The physician reserves the right to determine what work the PA will perform. PAs are trained to know their limitations in medical practice and to refer patients to physicians when the case requires more advanced knowledge (2).

Finally, many PAs are willing to work in areas that other health professionals choose against. According to the Bureau of Labor Statistics, PAs are more willing to work in states that allow them a broader scope of practice (10). Similarly, PAs are willing to work in rural areas where they can practice more freely. Especially now, with the improvements in telecommunications, physicians can oversee and supervise PAs without being bodily present at the practice. Consequently, the Bureau of Labor Statistics predicts that the need for PAs will grow drastically in the next few years as many medical practices start turning to them to provide medical care (10).

In summary, PAs are capable of providing assistance in rural areas. They have the necessary training, skills, and knowledge to provide competent medical care for most of the basic health issues that they face. Equally important, PAs are willing to work in areas like rural Pennsylvania that other physicians are leaving. “Studies done by the Federal Government have shown that PAs, working with the supervision of physicians, provide care that is comparable to physician care. Physician Assistants have demonstrated their clinical effectiveness both in terms of quality of care and patient acceptance” (2).

The legalities of using PAs:

Lastly, if any health care recommendation is to be accepted, it must fall within the legal standards and regulations put forth by the powers that govern it. In this case, for it to be feasible to allow PAs to take on a more active role in medicine in rural Pennsylvania, the proposed recommendations must adhere to the current rules concerning
the practice of PAs. Specifically in Pennsylvania, the AAPA and the Pennsylvania State Board of Medicine oversee the use of PAs in medical practice. The following list of standards is set forth by the AAPA for the practice of PAs (3).

**Accreditation:** PAs must graduate from a school accredited by the Accreditation Review Commission on Education for the Physician Assistant.

**Certification:** PAs must pass the certifying exam of the NCCPA.

**Licensure:** A regulatory board verifies a PA’s qualifications and issues a license to that individual.

**Supervision:** A supervising physician must oversee each PA. The PA and physician must be able to contact one another either in person or via telecommunications. The supervising physician must a M.D. or D.O. who is licensed to practice in the state.

**Scope of Practice:** PAs are permitted to provide medical services that are assigned to them by their supervising physicians.

**Prescribing Medications:** PAs can prescribe as permitted by their supervising physician.

The Pennsylvania State Board of Medicine sets forth the following list of standards for the practice of PAs in the state of Pennsylvania (3).

**Accreditation:** PAs must graduate from an accredited school.

**Certification:** PAs must pass the certifying exam of the NCCPA.

**Licensure:** The PA must apply for a Pennsylvania state certification.

**Supervision:** The PA and physician must be able to contact one another either in person or via telecommunications. Board approval is required for the operation of satellite offices (3).

**Scope of Practice:** The supervising physician delegates what the PAs can do.

**Prescribing Medications:** PAs can prescribe drugs from the formulary except schedules I-II and parenterals. PAs must register if they are prescribing controlled medications (3). PAs cannot prescribe medication if their supervising physician is an osteopathic physician (D.O.).
In general, the regulations concerning the practice of PAs set forth by the AAPA and by The Pennsylvania State Board of Medicine overlap in many areas. Likewise, both groups attempt to “protect the public from incompetent performance by unqualified non-physicians” and “to promote the appropriate expanded delegation within the scope of PA practice by assuring consumers, physicians, and others that PAs are competent” (3).

Conclusion

From the data presented in the evaluation portion of this report, we can make certain conclusions concerning the effect that an extended use of PAs will have on the cost and quality of rural health care.

On the one hand, a PA’s salary is less than half of a physician’s salary. Therefore, by using PAs more extensively in rural medicine, Pennsylvania could see a reduction in the overall cost of health care in rural areas. Perhaps more importantly, the use of PAs may be able to help reduce the heavy financial burden caused by medical malpractice liability. Because PAs tend to communicate more with their patients, they are less likely to be involved in medical malpractice lawsuits.

Although PAs do not have as much education and medical training as physicians do, most are capable of performing basic medical tasks. When PAs do encounter medical cases or situations that are beyond the scope of their expertise and knowledge, they are trained to seek the consultation and advice of their supervising physicians. Most PAs are trained in primary cares specialties like family medicine, internal medicine, pediatrics and gynecology/obstetrics. In rural areas experiencing physician shortages, the primary medical need is for qualified and available primary care practitioners. Consequently, the practice of PAs in rural areas would benefit rural residents.

Finally, this report indicates that it is legally feasible to broaden the responsibilities that PAs have in medicine. Both the AAPA and the Pennsylvania State Board of Medicine emphasize that supervising physicians should be the ones to decide what tasks and roles PAs may perform as based upon their training and experience. Likewise, these organizations refrain from providing a recommended ratio of physicians to PAs in an area. Once again, they leave this decision up to the supervising physicians. The only real limitation that is placed on PAs is that they must be able to contact their supervising physicians at all times.
Everything considered, I would conclude that it is feasible for Pennsylvania to use PAs to help alleviate the problems associated with physician shortages in rural areas.

**Recommendations**

In order to lessen the effects that the physician shortage is exerting in rural Pennsylvania, I recommend that the Office of Health Care Reform investigate strategies to increase the use of PAs in rural areas. In order to effect this change, the Office of Health Care Reform should consider the following recommendations:

6. Make Pennsylvania a PA-friendly state to ensure that we have an available supply of PAs to work with in the future.
7. Promote the merit and quality of the care provided by PAs.
8. Encourage physicians to consider taking on more PAs under their supervision, if possible.
9. Support physicians’ decisions to allow PAs a broader scope of practice in medicine, especially in under-served areas.
10. Defend legislation that protects the rights that PAs currently have in Pennsylvania.
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References


Appendix A

Defining Rural

Recently, the Center for Rural Pennsylvania developed a new system for determining which counties in Pennsylvania are rural and which are urban (7). The Center calculated the total state population for 2000, which summed to 12,281,054 residents. Then the Center divided that total population count by the number of square miles in Pennsylvania (44,820 square miles). The number that resulted from this calculation was the new measure of the population density of the state. Therefore, any county that has a population density less than 274 is considered a rural county. Any county that has a population density greater than 274 is considered to be an urban county. See calculation below.

\[
\frac{12,281,054 \text{ residents}}{44,820 \text{ square miles}} = 274 \text{ residents/sq. mile} = \text{population density}
\]
Appendix B

Physician Shortage Area Program

The Physician Shortage Area Program (PSAP) was begun in 1974 by Jefferson Medical College in Philadelphia, Pennsylvania. The program was initiated to “to increase the number of family doctors in rural and underserved areas, especially in Pennsylvania” (6). Other medical colleges also participate in this program.

Each year the participating colleges accept a limited number of students into their physician shortage programs. The students then complete a course specially designed to train them for practicing medicine in rural areas. Usually, the students go on to work in rural areas. Fortunately, the program has recorded success in helping to provide physicians for Pennsylvania’s underserved medical areas. According to an article in JAMA, “study results show that PSAP graduates, who represent only 1 percent of the graduates from Pennsylvania’s seven allopathic medical schools, accounted for 21 percent of family physicians practicing in rural Pennsylvania coming from those schools” (6).