The popularity of dual physician assistant/master of public health degree programs continues to increase within US physician assistant (PA) education. The advantages and disadvantages of pursuing dual degree training have not been fully explored in the PA literature. Potential advantages of dual training include broadening of the student’s perspective on health and health care beyond the “one provider, one patient” medical model, increased training in evaluation and use of the medical literature, increased skill in assessing community factors that affect the health of patients, enhanced expertise in health care administration or policy, and improved prospects for future roles as PA faculty members. Potential drawbacks include increased duration and expense of PA/MPH education, student burnout due to prolonged training, and the lack of jobs that explicitly use both halves of the PA/MPH training.

INTRODUCTION

The popularity of dual physician assistant/master of public health degree programs continues to increase within US physician assistant (PA) education. Currently at least seven such programs (Arcadia University, Emory University, George Washington University (GWU), Touro University California, University of Medicine and Dentistry of New Jersey, University of Nebraska, and Yale University) exist, with more under active development. These programs appear to be popular among PA program applicants. For example, applications to the GWU program have risen by more than 100% in the last 2 years, and in 2011, 180 applications were received for 15 seats. Apart from now-dated descriptive reports, there is little information available documenting these programs. A common concern on the part of applicants and students is the “value-added” dimension of obtaining the MPH degree coupled with the PA credential. For such persons, the question is: Does the possession of an MPH degree provide PAs with additional career latitude or capabilities? For educators, a corollary question becomes: Which areas of overlap exist between the fields of clinical medicine and public health that dually credentialed PAs may explore and develop? In this paper we will discuss the educational intersection of medicine and public health, consider the potential advantages and drawbacks of obtaining the MPH degree concurrently with PA training, and explore the types of career opportunities that may be available to the graduates of such dual degree programs.

Definitions

For the purposes of this paper, we define a dual PA/MPH degree program as one that has an integrated curriculum and at least three cross-credited courses. We do not include programs offered by several institutions that make available the MPH degree to students as an “add on” following completion of the PA curriculum.
Public Health and the PA Profession

The mission of public health is to improve health and prevent disease and disability in the population. The PA profession has contributed significantly to the mission of promoting public health since its inception. In a time of primary care physician shortages and increasing medical specialization, PAs were created to improve access to basic primary care to underserved populations in the United States. Evidence suggests that PAs have fulfilled this purpose. As a result of the active role PAs play in meeting US public health objectives, the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) includes public health training as a core requirement for PA education. The ARC-PA Accreditation Standards for Physician Assistant Education, 4th Edition, states: “The program curriculum must include instruction in concepts of public health as they relate to the role of the practicing PA.” The annotation further states that “Instruction in concepts of public health includes an appreciation of the public health system and the role of health care providers in the prevention of disease and maintenance of population health. It includes participating in disease surveillance, reporting, and intervention.”

The inclusion of public health training in the accreditation standards is partially a response to several important trends in American health and health care. PAs need to have strategies for addressing issues of cost and quality in health care. They need to know how to provide holistic care for an aging population. PAs should understand the social and environmental determinants of health that contribute to the development of diseases such as diabetes, cancer, and HIV/AIDS and should be able to implement approaches to ameliorate these effects. Increased ease of international travel and immigration means that PAs in the United States are called upon to have an understanding of a wide variety of infectious diseases and a solid grasp on appropriate immunization practices. Finally, PAs are required to know how to interact with the public health and health insurance infrastructures in the US in order to effectively care for their patients.

As these and other public health issues become more prominent, having a well-trained workforce that is knowledgeable and equipped to address community-level health concerns is vital. As a profession, PAs are well-educated as primary care clinicians and able to handle a wide variety of common health care disorders. Adding a master’s degree in public health equips PAs with the necessary skill set to manage the health of entire communities. Although currently only a handful of the 156 accredited programs offer a dual PA/MPH degree, the number of programs considering offering such training is increasing. So what are some of the perceived advantages for obtaining this type of dual degree?

Advantages of Dual PA/Public Health Training

Students who are certain they would like to obtain training both in public health and as a PA may find the dual degree program attractive both logistically and financially. At most PA/MPH programs, students can complete their degrees in 3 years, compared with the 4 years it would take to pursue the degrees separately. The savings in time and tuition would seem to be particularly attractive to career-changers and mature students who would like to minimize interruptions to their time in the paid workforce. Perhaps the major advantage of obtaining the MPH degree concurrently with PA training is the broadening of the student’s perspectives regarding health and the health system and the incorporation of concepts of population medicine. Because all students in Council on Education for Public Health-accredited schools of public health must complete coursework in biostatistics, epidemiology, environmental health, health policy and health administration, and social and behavioral sciences, they are trained to view health and health care delivery from a vantage point not typically taught in the “one provider, one patient” medical model curriculum. These perspectives are highly likely to influence their practice once the student becomes a PA. For example, PAs who have completed graduate education in epidemiology may be more sensitive to the issues of development of antibiotic resistance in a community and therefore would be less likely to prescribe antibiotics for viral illnesses. PA/MPHs with training in health behavior and health education may be in a better position to explain to the same patient why antibiotics are inappropriate in this setting. Because PA/MPH students have had training in public health policy, they may be less likely to prescribe expensive new medications when an older, cheaper, and equally effective medication is available. Studying health policy provides PAs with a deeper understanding of health care systems and the various professional roles within them. This enhances the PA’s ability to function in a team of health care providers, a capability essential to the PA’s role. PAs with environmental health training may be more sensitive to the concerns of repeated radiation exposure to the patient during a diagnostic workup. Dual degree graduates may possess a more worldly
### Table 1. PA/MPH Dual Degree Programs in the United States

<table>
<thead>
<tr>
<th>Program</th>
<th>Length of Program</th>
<th>Tuition and Fees *</th>
<th>Number of Incoming Students in 2010–2011</th>
<th>MPH Tracks (Academic Areas of Concentration)</th>
<th>Year Established</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arcadia University</td>
<td>36 months</td>
<td>$93,400</td>
<td>8: Delaware 12: Glenside</td>
<td>-MPH with a community health focus</td>
<td>2000</td>
</tr>
</tbody>
</table>
| Emory University               | 40 months         | $84,100            | 5                                        | -Behavioral sciences and health education  
-Environmental health  
-Epidemiology  
-Health policy and management  
-Global health  
-Global environmental health  
-Global epidemiology                                                 | 2007             |
| George Washington University   | 36 months         | $98,550            | 15                                       | -Prevention and community health (community-oriented primary care)  
-Epidemiology and biostatistics  
-Exercise science  
-Global health  
-Health policy  
-Health services management and leadership                         | 1987             |
| Touro University               | 32 months         | $104,150           | 40                                       | -MPH with a community health focus                                                 | 2004             |
| University of Medicine and Dentistry of New Jersey | 48 months | In-state: $77,040  Out of State: $115,560 | 1                                        | -Environmental and occupational health  
-Health education and behavioral science  
-Health systems and policy                                                 | 2005             |
| University of Nebraska         | 40 months         | In-state: $52,765  Out of State: $110,800 | 2                                        | -Community-oriented primary care                                                 | 2011             |
| Yale University                | 39 months         | $110,000           | 2                                        | -Epidemiology of microbial diseases  
-Chronic disease epidemiology  
-Social and behavioral sciences  
-Health policy                                                        | 2008             |

* This is an estimation based on tuition and required fees for the 2010–2011 academic year. It does not include books, equipment, or living expenses.
perspective of health, the determinants of health, and methods to track changes in health.

In addition, students who complete a full MPH program have much more training in biostatistics and epidemiology than the typical PA student. This training serves to increase the skills of PA/MPH graduates in using and evaluating the medical literature as required by accreditation (ARC-PA Standard B2.10). A study of graduates of the University of North Carolina MD/MPH program revealed that MD/MPH graduates are much more likely than MD graduates to be confident in their ability to search and critically evaluate the medical literature to inform their clinical practice.5 This skill will likely only increase in importance in the years ahead as research in comparative effectiveness develops and as the requirements for maintenance of certification requires implementation of clinical quality improvement projects.

Graduates who hold degrees that qualify them as both PAs and public health professionals are well-suited to entering positions in preventive medicine and public health. The flexibility to pursue nonclinical careers in areas such as epidemiologic research, school health, or government-based public health initiatives may be of particular interest to PAs who are seeking to balance career with family responsibilities. Entering the public health hierarchy may provide new opportunities for professional development, although this switch will typically involve loss of pay, as starting salaries for most recent graduates from US schools of public health range from the mid-$40,000s to the high-$60,000s (depending on public health specialty)6 compared with the average starting salary for a recently graduated PA of $78,405.12

PAs who hold the MPH degree also may find increased opportunities to work internationally. Most countries of the world do not recognize the PA credential but do recognize public health training from an accredited American school of public health. For example, Doctors Without Borders does not recruit PAs to work with their teams. However, PAs who hold an MPH are welcome to apply as public health professionals.7 Once in the field, they may find that their clinical skills are valued as well.

PAs who hold the MPH degree may be particularly attractive to practices that care for medically underserved populations. These graduates are well-suited to become high quality candidates for programs that value a public health approach such as the National Health Service Corps. Skills in population-based health assessment, behavior counseling, policy development and advocacy, epidemiology, and environmental health can help these providers make a lasting health effect on the communities they serve.

A few dual MPH/PA programs have established their focus on community-oriented primary care, which has been defined differently by several authors. According to A Dictionary of Epidemiology, community-oriented primary care is defined as where “the primary health care practitioner or team is responsible for health care both at the individual and at the community or population level.”8 PAs are well-suited to practice community-oriented primary care with their focus on an individual’s or family’s medical and psychosocial well-being. Training in the community-oriented primary care model expands the PA’s knowledge and focus to include the community’s well-being. PAs with a dual degree focused on community-oriented primary care are able to expand their reach to affect the health of an entire community. It is not at the exclusion of the individual’s health needs, but the inclusion of the community health needs as well. These “hybrid” providers are in a position to span the fields of public health and clinical medicine and could be very attractive to a number of different types of practices such as community health centers, rural health clinics, and the Indian Health Service. Such providers may also be ideal for delivering services to populations with high rates of chronic disease that require behavioral, motivational, and preventive approaches.

Depending on the public health focus of the dual degree, graduates may also be attractive as health care administrators, directors of public health departments, or policy makers. Individuals who have an understanding and appreciation of the different forces that affect a population’s health are highly sought after by a number of governmental and nongovernmental agencies to assist in developing legislation, rules and regulations, and policy. This is more likely a position taken after a number of years in clinical practice, which would have provided the PA with experience with, and insight into, our health care system. There are examples of dual degree PAs who hold or have held leadership positions within the American Academy of Physician Assistants, where they have had opportunities to participate in legislation and policy at both the state and federal levels.

Finally, PA/MPH graduates have skills that make them attractive as PA program faculty members. Their increased facility with the medical literature is useful when teaching students evidence-based medicine. In addition, faculty who have public health training are able to teach the
public health modules required by ARC-PA Standards. Public health training, particularly in health administration, develops skills in analysis of organizational structures and basic organizational leadership techniques, which can be very useful to a PA educator as he or she provides leadership to a PA program. In addition, a faculty member with a PA/MPH degree can bring a broader perspective on service to underserved and marginalized populations to the curriculum, be a role model for this service, and encourage students to become more active in the community.

**Drawbacks to Dual PA/MPH Training**

A major consideration for students in the decision to pursue a combined PA/MPH degree is the added tuition expense. Depending on the institution, the addition of the MPH costs an additional $40,000 to $50,000 in tuition and living expenses. Most current PA/MPH programs are housed in relatively expensive private universities; therefore, all but the wealthiest students will have a significant student loan burden at the end of their PA/MPH training. The additional year of formal education delays the financial reward of clinical practice and the ability to begin recouping their tuition investment and repay student loans. The temptation for the new graduate may be to select a position in specialty practice that brings with it a higher salary.

Another disadvantage for PAs who intend to work primarily as public health practitioners is the significant salary disparity between clinically practicing PAs and those who work in public health fields. Students who know they are primarily interested in working in public health may be better served by simply obtaining an MPH and not incurring the additional expense of PA training. Students who wish to gain some clinical background to aid them in their public health careers might be encouraged to pursue training as an RN instead of as a PA, as nursing education at the undergraduate level is typically cheaper than PA training at the graduate level.

A particular challenge for PA/MPH graduates is availability of true “hybrid” or community-oriented primary care positions, which allow a PA to blend the training obtained with the two degrees. Although an MPH is required for PAs who wish to enter the US Centers for Disease Control and Prevention’s Epidemic Investigative Service, few other PA positions explicitly require or use the dual training. Because PA clinical services are directly reimbursed by insurers, and public health services may not be, there will always be a temptation for health care administrators to encourage PAs to maximize clinical output instead of spending time on public health services. Hopefully, as more PAs graduate with dual credentials, more hybrid positions will become available.

Another potential disadvantage of pursuing PA/MPH training is student burnout. At several institutions, the MPH portion of the training comes first. Students who come to their PA/MPH training soon after completing undergraduate training and then complete their MPH portion of the curriculum may find themselves with motivational difficulties during the preclinical year of their PA curriculum. Unlike their colleagues who start the preclinical phase well-rested and eager to return to the classroom, students who have just completed a demanding 1-year MPH program may struggle to sit through another year of didactic instruction. Finally, students who pursue the PA/MPH training concurrently may lack the work and life experience that would have allowed them to cultivate a particular area of interest within public health. Completing the MPH later in a PA’s career enables the PA to focus his/her public health studies on an area more relevant to his or her developed interests.

**CONCLUSION**

As our country wrestles to map out relevant health care reform, one clear concern is disease prevention. Many preventable diseases such as diabetes, obesity, HIV, and smoking-related illness cause significant levels of morbidity and mortality, particularly in underserved populations. Although PAs have had some limited success addressing these issues at the individual level for patients with health insurance, a much greater effect could be made if the problems were addressed at the community level. Preparing primary care providers with the skills to influence care at the community level makes sense. In fact, there have been calls for medical educational efforts that would bridge the longstanding gaps between medicine and public health. A limitation of this paper is the dearth of existing literature assessing the value of either MD or DO/MPH or PA/MPH educational programs or databases that follow such graduates over the course of their professional careers. Further research, ideally a longitudinal cohort study approach, is necessary to determine the true worth of the MPH/PA dual degree programs to the offering institutions, the graduates, and society as a whole.
REFERENCES


