EDITORIAL

Predicting the Supply of Pharmacy Residencies

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In this issue of *Pharmacotherapy*, Dr. Knapp and her colleagues provide a useful assessment of the recent state of supply and demand for pharmacy residencies and project how this might evolve through 2020.[1] This time projection was based on the vision of the American College of Clinical Pharmacy (ACCP) that residency training would be a prerequisite for the provision of direct patient care by pharmacy graduates by that time and advocacy of the American Society of Health-System Pharmacists (ASHP) for the same.[2, 3] Their results suggest that the growth rate would exceed that necessary to provide residency positions for all graduates who wish to practice in health systems (estimated as 24% of graduates), but that it would fall short of the number projected as necessary by ACCP (75% of graduates).

Projections of this sort are fraught with the potential to be wrong for a wide variety of reasons. However, it is still of value to make these estimations in order for the profession to consider the implications and act if it believes in the importance of residency training for its graduates. Dr. Knapp and her colleagues also discuss some of the debate surrounding this issue in their article. Such evolution should, of necessity, be debated across the profession. Since the publication of ACCP's vision, several pharmacy organizations, such as the American Association of Colleges of Pharmacy, American Pharmacists Association, and Academy of Managed Care Pharmacy, have either specifically stated that residency training should not be a prerequisite for direct patient care, or have defeated or tabled policies suggesting this need. Although all of these organizations are in favor of residency training, the debated issue is the extent to which graduates should be pursuing this training.

The actual number of positions needed in the year 2020 will depend on many factors. The ACCP based its estimate of 75% of graduates on the Pharmacy Manpower Project Report, which suggested that approximately 75% of the 420,000 pharmacists estimated to be practicing at that time would practice in areas related to direct patient care.[4] In response to the high demand and short supply of pharmacists, there has been a dramatic increase over the last few years in the number of colleges and schools of pharmacy as well as in the class sizes of many existing colleges and schools. If this rate of growth were to continue, there would be even greater need to rapidly expand the availability of residency positions above that projected by Dr. Knapp and her colleagues in order to meet the 75% goal. However, recent reports suggest that the supply of pharmacists has improved.[5] There are also anecdotal reports from several areas of the country that some 2009 graduates are not immediately finding positions. If the demand for pharmacists slows and leads to a reduction in the output of graduates, the number of residency positions needed to fulfill the vision of ACCP and ASHP might be more readily achieved.

Perhaps the most important issue related to this entire discussion relates to what the practice of pharmacy will look like in 2020. If it looks the same as it does today, with some two thirds of graduates practicing in community settings, where the extent of patient contact consists of a cursory review of their overall drug therapy with occasional medication management, brief counseling on new prescriptions, and perhaps administering a few immunizations each day, there will be limited need among those individuals for residency training. This remains a

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possible scenario if the government and other payers continue to not recognize pharmacists as health care providers. If the future of pharmacy plays out this way, it is likely that use of technology and technicians will continue to rightfully take over all aspects of the dispensing process, and prescriptions for community settings will increasingly be filled in central facilities. Drug therapy–related issues will also be adjudicated centrally more often, and the need for pharmacists at individual pharmacies in the community will probably decrease. Although there will continue to be evolution of collaborative practice models and advanced clinical services in acute and chronic care settings where residency training should be a prerequisite, this will evolve gradually, as it does today.

The alternative scenario that most academicians and pharmacy organizations foresee is one where pharmacists are afforded provider status and receive payment for direct patient care services. The ACCP task force believed that this would occur when it made its projections for the future.[2] If pharmacists receive provider status, there will be economic incentives to prepare them to skillfully manage patients' drug therapy in all settings in which they deliver care, and it is ACCP's belief that this will require residency training. Colleges and schools of pharmacy could then focus on preparing their students adequately to enter residency training, like medical schools do today, and could serve as important developers of new residency programs.

It is important to note that the health care reform initiatives under consideration may alter the way all providers are paid for their services, including pharmacists, if given provider status. Without provider status, pharmacists may remain financially tied to the drug product, with little positive change. With provider status, pharmacists would be paid in some manner similar to other recognized providers, and models of funding for pharmacy residencies could include opportunities to be compensated for services. This could dramatically increase the potential for new residencies and would alter the supply projections by Dr. Knapp and her colleagues, since their projections are based on the current model of pharmacy practice.

There are a number of important messages provided by the results of Dr. Knapp and her colleagues. First, if it can be assumed that the data are representative of future growth, there will be more residencies available than needed for scenario 1 (residencies only needed for health-system practice), and the number will approach but not meet that needed for scenario 2 (75% of graduates). This is a positive finding that should provide some hope. The actual growth rate reported from 2008 to 2009 was 7% according to ASHP,[6] which is slightly lower than what was projected by Dr. Knapp and her colleagues. However, the economy was also in a terrible state, which may have influenced growth for this year.

Next, it is clear that there is work to be done to increase the number of residency positions at a more rapid rate. The ACCP and ASHP have been working together over the past few years to help increase the availability of positions, but these efforts need to escalate and include other organizations. One effort by ACCP this year was the charging of a task force to prepare a primer on residency program development in order to help its members and others who are seeking to create new programs.

The data from Dr. Knapp and her colleagues provide encouraging news that new programs made up more than 4% of the growth from 2007 to 2008. This is encouraging because new programs often start small and can more easily grow after they have received accreditation. As an example, Dr. Knapp and her colleagues reported that there were 616 postgraduate year (PGY) 1 programs with 1634 PGY1 residency positions in 2008, an average of 2.7 residents/program. If each program added two positions, the number of available positions would increase by 75% without the addition of any new programs. Since adding positions does not require new accreditation, it is a relatively easy way to grow. Obviously, not all settings would need two additional residents, but there are many that could use far more.

Dr. Knapp and her colleagues suggested that pharmacists wishing to return to residencies might exacerbate the need for positions. Although that is possible, there is probably a greater likelihood that seasoned practitioners will have achieved the skills that most residents gain in their year of training and will not be a significant drain on residency positions. Further, if pharmacists have not developed a reasonable level of patient care skills and are many years into their professional careers, it is unlikely that residency programs would consider them competitive. Such individuals may be better served with targeted educational and skills-building programs. The ACCP is working on a residency equivalency process for pharmacists to

demonstrate that they have skills equivalent to those gained during a residency. Pharmacists who have been in practice for several years can also pursue board certification to document their knowledge. Each of these approaches might be used by seasoned pharmacists rather than pursuing a residency.

There is much work to be done regarding both supply and demand to achieve the vision of ACCP and ASHP that pharmacy graduates who intend to provide direct patient care will undertake a PGY1 residency. The work of Dr. Knapp and her colleagues demonstrates the potential for substantial growth in residency positions, but more will be needed before 2020. Changes in the manner in which pharmacists deliver care and are paid for their services have the potential to positively alter the trajectory of residency expansion. Time will tell whether pharmacists will be given the opportunity to fully participate as recognized providers in our reformed health care system.

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