Health Workforce Data and Policy: A North Carolina Overview

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Background

The rapid transformation underway in the health care system has spurred national and state policy leaders to find strategies to organize and finance the delivery of health care in a way that addresses the Triple Aim of a better patient experience, improved population health, and lower healthcare costs. Since health care professionals comprise about 50% of the total costs of a healthcare system[i], particular attention is being paid to collecting data to inform how health professionals are educated and deployed.

Unfortunately, in many states, we lack basic information about the health workforce,[ii, iii] including:

- how many health professionals are in practice and in what settings they work;
- how the health workforce is likely to change in the future;
- how new care delivery and payment models will change the numbers and types of professionals needed;
- how well health professionals are distributed in the state by geography and specialty; and
- how well the educational infrastructure is prepared to educate the health workforce that will be needed.

While most policy makers would agree that having the data needed to address these questions is important, building and maintaining the infrastructure to track the workforce is expensive and time consuming. Before investing in such a system, stakeholders need to be convinced that their investments in data will actually be useful to policy makers.

This brief, the first in a series that examines how to best use workforce data to support policy, provides an overview of how health workforce data are collected and analyzed to inform health workforce policy decisions in North Carolina. Additional briefs will describe in more detail how data have been used to answer specific policy questions.

How are workforce data collected in North Carolina?

The North Carolina Health Professions Data System (HPDS)[iv] was developed in the 1970s at the Cecil G. Sheps Center for Health Services Research at UNC Chapel Hill to collect and disseminate objective, timely and reliable data on licensed health professionals in North Carolina. A collaboration among the Sheps Center, the North Carolina AHEC Program and the state's independent health professional licensing boards, the HPDS is one of the longest, continually maintained health workforce data systems in the country. Ongoing financial support is provided by AHEC and the Office of the Provost (Health Affairs) at the University of North Carolina at Chapel Hill.

Data are collected by the licensing boards from health professionals at the time of initial licensure and subsequent renewals. The boards share a point-in-time "snapshot" of their data effective October 31 of each year. For most health professions, the information includes name, home address, business address, birth year, sex, race, information on basic professional education (i.e. school name and state, graduation year and degree),

specialty, activity status, form of employment, practice setting, total hours worked in an average week and percent time in direct patient care.

How are data used to inform policy in North Carolina?

Data, analyses and reports are produced by the NC HPDS as issues are identified and upon request from North Carolina legislators, government officials, the NC AHEC, education leaders, health care employers, regulatory bodies, professional associations, researchers and others. This information has been used to:

1. **Describe the supply and distribution of the current workforce.** Data provide an overview of the current supply and distribution of a particular health profession and longitudinal trends. These data help stakeholders understand the workforce as it exists in order to better plan for the future.

2. **Document shortages of providers or services.** NC HPDS Data are used in federal Health Professional Shortage Area (HPSA) designation applications, and can be used in conjunction with demand and education data to identify the need for additional providers, service lines and educational programs.

3. **Document the need for new educational programs.** Supply data are used by the University of North Carolina System, the North Carolina Community College System and private colleges and universities to evaluate the need to create new education programs.

4. **Evaluate educational outcomes.** Those who invest in health professional education are interested in their return on investment by knowing how many health professionals that are educated in the state remain in the state to practice, if they are practicing in rural or underserved areas, or if they are serving special populations. NC HPDS data provide describe those outcomes.

5. **Inform state GME funding and policy.** Public spending on GME is significant. Information on GME program outcomes such as graduates' specialty choice, practice location, and the patient populations they serve can help states and the federal government consider ways to reform GME governance and financing to more effectively target funds.[v]

6. **Describe racial and ethnic diversity in the health professions.** Increasing the diversity of the health workforce is one strategy to help reduce health disparities among racial and ethnic minorities.[vi] Stakeholders can use data on the racial and ethnic makeup of the workforce compared to the population to evaluate patterns in growth and distribution, create and evaluate education programs focused on racial and ethnic minority students, and target recruitment efforts.

7. **Support workforce and economic development initiatives.** Health care and social assistance jobs have helped drive state employment opportunities, particularly in rural areas.[vii] As the population ages, demand for health professionals will remain high. Supply and demand data, in conjunction with employment data, are used to monitor trends, target job creation and recruitment efforts and plan for education programs to support local areas' needs.

8. **Assess the impact of new roles in health care settings.** Existing health workers are taking on new tasks and responsibilities as health care delivery changes and modernizes. This process creates new roles that can span different health professions and links healthcare to the community. Data are needed

to understand how the workforce has changed over time to give policy makers a picture of what changes they need to make in rules and regulations to allow the workforce to be as effective and efficient as possible. [viii]

Data are disseminated primarily through the annual North Carolina Health Professions Data Book[ix], four to 12-page fact sheets, PowerPoint® presentations, downloadable Excel® files on the HPDS website and peer-reviewed journal articles. Publications are written in simple language for a broad audience, and are illustrated with graphics, charts and maps to more effectively convey messages.

Conclusions

The data produced by the NC HPDS have been used to inform decisions about what educational programs are needed, provide evidence for legislative debates about changes in health professional regulation, quantify the return on investment of funds spent on medical education in the state, designate health professional shortage areas (HPSAs), and identify where the state needs to attract more health professionals. A system such as the HPDS provides accurate and timely information so that policy decisions can be made based on data rather than anecdotal evidence. As other states develop or enhance health workforce data collection systems, this series of briefs may help to persuade stakeholders to fund and support their data collection initiatives.

References and Notes

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[iv] For more information on the NC Health Professions Data System, see http://www.shepscenter.unc.edu/programs-projects/workforce/projects/hpds/.

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