HWTAC
Health Workforce Technical Assistance Center

Beyond the Minimum Data Set (MDS): What Additional Data Do States Collect on Health Workforce Supply?

Background

The health care delivery system is changing, with a growing emphasis on primary care, prevention and population health. These changes are affecting demand for health workers as well as the skills these workers need. To better understand these changes, it is necessary to have basic information on the supply, distribution and characteristics of the current health workforce. Routinely collecting data that can describe the numbers, locations and characteristics of health workers supports evidence-based decision-making on, among others, a state's educational pipeline for primary care practitioners and the need for provider incentives to improve access to care in high need areas.

A 2016 Health Workforce Technical Assistance Center (HWTAC) study[1] found that health workforce supply data are regularly collected and reported in over half of the states in the US, and the majority of these states collect supply data at the time of licensure or relicensure of health professionals. Most states that collect health workforce supply data follow Minimum Data Set (MDS) guidelines on the questions they ask. However, some states collect additional data on their health workforce. This brief summarizes what we're learning about state health workforce data collection that goes beyond the MDS.

What Information are States Collecting?

The National Center for Health Workforce Analysis at the Health Resources and Services Administration (HRSA) developed a standard set of basic questions that can be used or adapted to collect data on the supply of health workers. Known as the Minimum Data Set (MDS), it consists of a small number of questions focused on key demographic, educational, and practice characteristics of health workers – information that can be used to support effective health workforce planning. Suggested variables include age/race/sex, professional education (including degree, location, and year completed), licensure and/or certification, employment status, practice location(s), practice specialty, and direct patient care hours by location.[a]

While the MDS is designed to collect basic information about the health workforce that is consistent and comparable over time and across professions and states, additional information beyond the MDS variables can be useful for purposes of state-level health workforce planning, education and policy.[2]

Five states (Minnesota,[b] New York,[c] North Carolina,[d] Pennsylvania,[e] Utah[f]) shared copies of the survey instruments they use to collect information on its health professionals. These states included variables in their surveys that went beyond those recommended in the MDS. These additional questions ask about:

- Location of high school
- Intention to remain in the state to practice, practice in another state, retire or leave clinical practice
- Provision of services to Medicare and/or Medicaid patients

[a] http://www.healthworkforceta.org/wp-content/uploads/2016/08/MDS_Resource_Brief.pdf

[b] http://www.healthworkforceta.org/resources/state-health-workforce-data-collection-inventory/minnesota-health-workforce-data-collection/

[c] http://www.healthworkforceta.org/resources/state-health-workforce-data-collection-inventory/new-york-health-workforce-data-collection/

[d] http://www.healthworkforceta.org/resources/state-health-workforce-data-collection-inventory/north-carolina-health-workforce-data-collection/

[e] http://www.healthworkforceta.org/resources/state-health-workforce-data-collection-inventory/pennsylvania-health-workforce-data-collection/

[f] http://www.healthworkforceta.org/resources/state-health-workforce-data-collection-inventory/utah-health-workforce-data-collection/

- Percent of patients by insurance type (public, private, self-pay, uninsured)
- Ability to accept new patients
- Availability of translation services
- Types of services provided (eg, obstetric deliveries)
- Use of health information technology (HIT) and health information exchanges (HIE)
- Provision of telehealth services
- Use of multidisciplinary teams in service delivery
- Collaborative agreements, certifications for advanced practice
- Education debt
- Compensation
- Productivity
- Satisfaction

What Are the Implications for Research, Planning, and Policy?

Timely and finely grained data about a state's health workforce allows planners, policy makers, educators, and health care employers to better understand issues that can affect the availability of health workers. This could include, for example, the impact of retirement patterns on access to needed services.

These data can be used to assess profession-specific supply and distribution, identifying areas of potential workforce shortage or surplus, to identify underserved areas and to consider potential strategies to fill gaps. Additionally, these data can help inform and refine national workforce supply/demand projection models, like those commissioned by HRSA.[g]

Federal and state governments invest substantial resources in provider incentive programs designed to increase access to care for underserved populations, including the National Health Service Corps, State Loan Repayment Programs, and the J-1 Visa Waiver Program, among others. In addition, there are sizable federal and state investments in the Medicaid insurance program that aim to support the provision of health services to a wide array of vulnerable populations. More finely-grained state workforce data can help identify characteristics of providers caring for

> ### Additional health workforce supply data can be used for:
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> - *Identifying gaps in access to care for vulnerable populations*
> - *Assessing adequacy of workforce supply in relation to demand for services*
> - *Evaluating the effectiveness of workforce incentive programs*
> - *Assessing the adequacy of educational capacity*
> - *Assessing profession-specific retirement and attrition rates*
> - *Using state-specific data to update national and state workforce models*

these underserved populations or working in high-need areas, identify gaps in access to care, and evaluate the return on investment from state and federal funds that support health professional education and placement programs.

Additional data elements can aid in planning recruitment and retention efforts. Information on the health professions educational pipeline, including location of secondary schooling, helps educators, employers, and state policymakers understand the extent to which the state is "growing its own" health professionals vs importing health professionals that grew up or trained in other states or countries. Data on educational debt and compensation can be used to describe trends and disparities in debt burden by specialty, profession, and practice location (eg, rural vs urban). This information can be used to inform the development of loan repayment programs, practice support, and other strategies to recruit and retain health professionals in high-need areas.

In areas with chronic workforce distribution issues that contribute to limited access to needed services, health care professionals may be encouraged to increase their "scope overlap," or provide services that they are trained and competent to perform but are typically provided by another professional (eg, a family

[g] http://bhpr.hrsa.gov/healthworkforce/supplydemand/nursing/

physician may deliver babies or provide some behavioral health services in the absence of an obstetrician/gynecologist or psychiatrist). This flexibility allows health workforce planners, educators, and providers to better anticipate and address specialty service need.

Use of health information technology (HIT) promotes better exchange of information and can lead to improved quality of patient care, improved care coordination and medication management, reduction of medical errors, better clinical outcomes, and potential cost savings.[3,4] Understanding providers' use of HIT supports assessments of HIT impacts on quality and outcomes, identifies barriers and facilitators of HIT implementation, and develops programs to support providers to engage in meaningful use.[h]

The use of telehealth allows access to health services in areas where these services are not readily available, such as in remote or rural areas or inner city communities. Information on the number, distribution, and characteristics of telehealth providers helps stakeholders to better understand how telehealth can improve access to needed services. Regulators need better information about providers of telehealth services, particularly those who are not based in their state.[5]

Team-based, interdisciplinary care can improve coordination, quality, outcomes, and patient satisfaction.[6] Additional information on the composition of teams helps those who train in team based models of care to understand its diffusion.

Provider productivity and satisfaction can provide insights on service volume and stress levels of providers. Providers working long hours or seeing a high volume of patients may be at risk for burn-out. This can impact the quality of the care they provide and influence decisions to leave clinical practice.

Data Limitations

It is important to understand some of the potential limitations of the additional data that are collected. For example, self-reported data on intention to leave or retire are poor predictors of actual departures.[7] The state of the economy, changes in circumstances after retirement,[8,i] and demand measures that either create the potential for better job opportunities or higher compensation, or the potential for burnout, can alter health professionals' actual decisions to stay or leave.

One drawback to adding more detailed questions to a health worker survey is that respondents may not be willing or able to accurately answer these questions. For example, a physician or dentist completing the survey may not know the makeup of their patient panel, the payer mix, or the practice's ability to see new patients. This could adversely affect the accuracy of responses.

Conclusion

State data collection efforts are providing useful information to better understand the supply, distribution, and key characteristics of their health workforce. Many states see the value of looking beyond MDS guidelines and ask a broader set of questions on workforce supply. A state's ability to collect additional data may depend on issues such as financial resources or state privacy laws. The opportunities can outweigh the challenges. It will be useful for states collecting enhanced information on their health workforce to share best practices[j] and success stories.
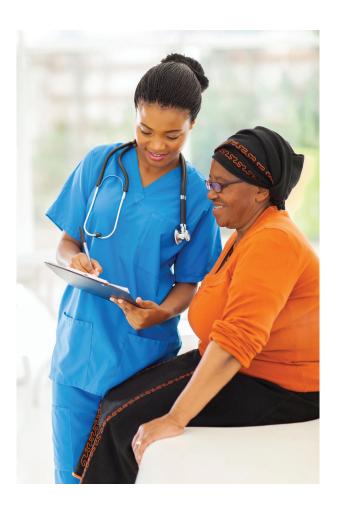
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[i] See Jewett et al. (Table 4) for more reasons that physicians reenter practice after retirement.

[j] The State Health Workforce Data Collection Inventory describes the supply, demand and education data that each participating state collects, as well as information on the organization responsible for collecting or disseminating data and examples of the data collection instruments (surveys, licensure forms). See http://www.healthworkforceta.org/resources/state-health-workforce-data-collection-inventory/ for more information.

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[h] See HealthIT.gov for more information on meaningful use: https://www.healthit.gov/providers-professionals/meaningful-use-definition-objectives.

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