

Health Workforce Data Collection in the United States

BACKGROUND

Over the past decade, an increasing number of states and organizations have been collecting health workforce data. Consistent and reliable data collection is essential for effective health workforce planning, as it serves several key purposes:

- **Supply Data:** Provides insights into the availability and distribution of health care professionals, informs supply-and-demand forecasting models, and supports the development of workforce programs and policies
- **Demand Data:** Helps identify workforce shortages and anticipate future needs
- **Education Pipeline Data:** Offers early indicators of potential disruptions in the pipeline of new health care professionals, aiding long-term planning

To facilitate these efforts, the Health Workforce Technical Assistance Center (HWTAC) conducts an ongoing survey of states to gather information about their health workforce data collection and analysis activities. This brief highlights findings from this survey to date.

For more comprehensive details on state health workforce data collection activities, visit the [State Health Workforce Data Collection Inventory](#) on the HWTAC website. The inventory also includes contact information for organizations conducting data collection and examples of [health workforce surveys](#).

METHODS

The survey that informs the state health workforce data collection inventory was launched in 2015. The survey captures information on organizations that collect health workforce supply, demand, and education pipeline data. Invitations to complete the online survey were sent to all state primary care offices, state nursing workforce centers, and other groups believed to be engaged in health workforce data collection in states across the US. The survey has been ongoing ever since, and the data inventory is updated as responses are received. In addition, HWTAC staff reach out to each organization in the inventory on an annual basis to ensure that the information contained in the inventory is as up to date as possible.

FINDINGS

Since the survey was launched, 54 organizations in 40 states have responded, indicating that they collect health workforce data. All responding organizations reported collecting health workforce supply data (eg, demographic, educational, and practice characteristics of health professionals). Fewer organizations reported collecting data on health workforce demand (eg, employer recruitment and retention experiences) or the health workforce education pipeline (eg, graduation rates and trainee/graduate characteristics). This brief summarizes key findings from the survey related to data collection efforts in these 3 areas of interest.

Health Workforce Supply Data

Currently, organizations in 40 states collect health workforce supply data. State-level health workforce supply data collection most commonly targets physicians (35 states), dentists (30 states), and registered nurses (RNs) (29 states). Health workforce data collection is mandatory in 22 states. Mandating health workforce data collection helps to ensure that states have the

information they need for health workforce planning. In 18 states, data collection is mandatory for all health professions for which data are collected. In 4 states, data collection is mandatory for a subset of professions for which data are collected. Data collection is most likely to be mandatory for RNs (18 states), nurse practitioners (NPs) (17 states), and physicians (17 states).

FIGURE 1. Reported Health Workforce Supply Data Collection by State

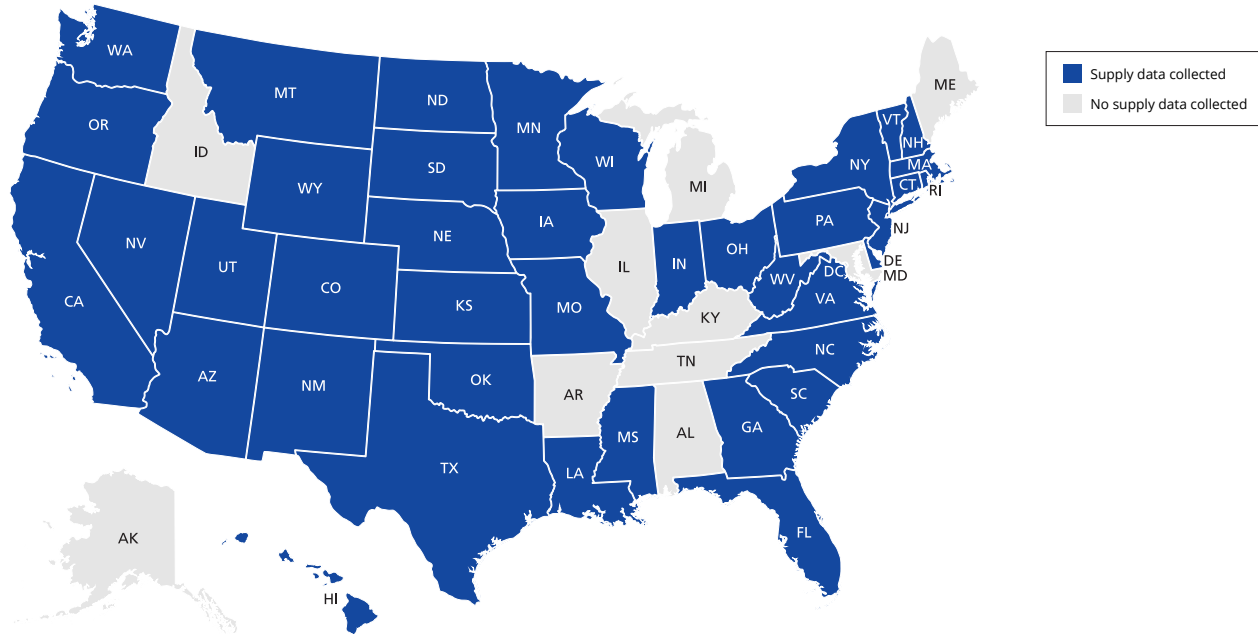
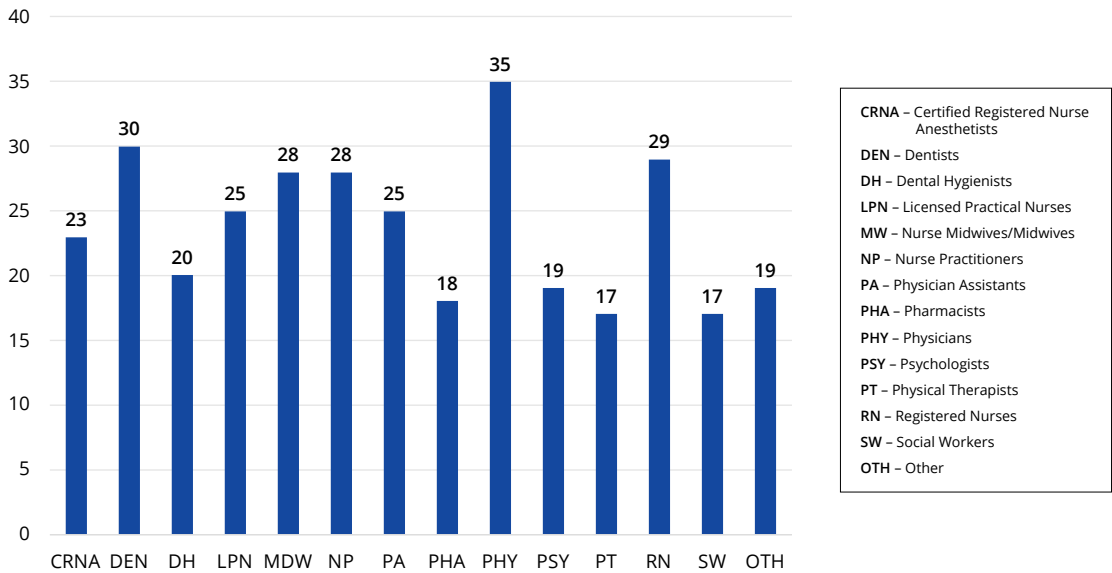


FIGURE 2. Health Workforce Supply Data Collection by Profession



Health workforce supply data are collected on a regular basis at the time of licensing/relicensing in 25 states. In most of these states, health workforce supply data are collected through a survey that is part of the licensing/relicensing process. However, a few states report different data collection strategies for different professions. Ten states report using a recurring survey that is not part of the licensing/relicensing process.

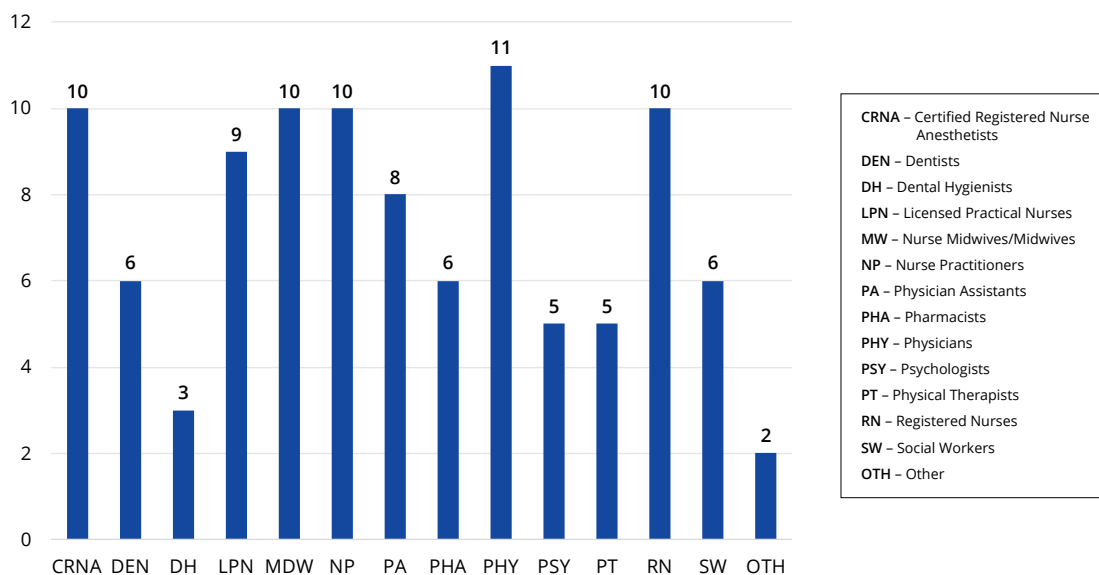
The most frequent supply variables collected are practice characteristics (37 states), demographic characteristics (36 states), and education background (35 states). Thirty-two states report collecting data on health professionals in all 3 of

these categories. The Health Workforce Minimum Data Set (MDS) guidelines recommend that states collect information on health professionals’ demographics, education backgrounds, and practice characteristics.¹ Initially developed by the Health Resources and Services Administration (HRSA) in partnership with health care professional organizations, the MDS guidelines are designed to help states collect the data they need to make informed decisions about the health workforce.

Health Workforce Demand Data

Fewer states collect data on the demand for health care professionals (17 states). Health workforce demand data are most frequently collected for physicians (11 states), certified registered nurse anesthetists (10 states), and RNs (10 states). Health workforce demand data are collected on a regular basis in 13 states. Health workforce demand data are most likely to be collected for hospitals (11 states) and nursing homes (10 states). The most frequently collected demand data are on vacancies (13 states), recruitment difficulty (10 states), and turnover (10 states). In 5 states, information is also collected on retention difficulties.

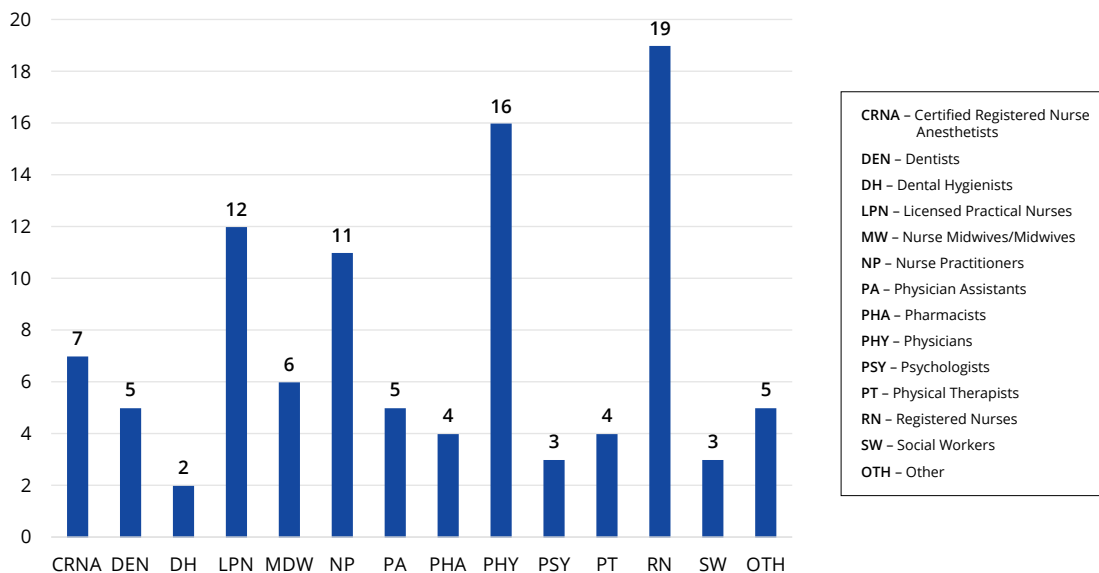
FIGURE 3. Health Workforce Demand Data Collection by Profession



Health Workforce Education Pipeline Data

Organizations in 23 states collect information about the health workforce education pipeline. Health workforce education pipeline data are most likely to be collected for RNs (19 states), physicians (16 states), and licensed practical nurses (LPNs) (12 states). Education pipeline data collection is recurring in 19 states. Eighteen states report collecting education pipeline data from education programs and 8 states report collecting education pipeline data from individuals in training. One state reported collecting data from both education programs and individuals in training (New York). Information about graduation rates (20 states), enrollment rates (19 states), and the demographic characteristics of trainees (18 states) are most often collected. In a few states, data are collected about trainees’ post-graduation plans (6 states) and job market experiences (2 states).

FIGURE 4. Health Workforce Education Pipeline Data Collection by Profession



DISCUSSION

Currently there are 54 organizations in 40 states collecting health workforce data. The majority of organizations collecting data are state agencies and universities, nursing centers, and area health education centers (AHECs). However, it should be noted that there are other organizations collecting health workforce data that are not included in the inventory presently.

The majority of respondents indicated that they collect health workforce supply data (49); fewer organizations report collecting health workforce demand data (20) and education pipeline data (28). While there are efforts to collect health workforce data on a wide array of health professions, the most likely professions are physicians and licensed nursing professions (eg, NPs, RNs, and LPNs).

CONCLUSION

Over the past decade, an increasing number of states and organizations have been collecting health workforce data. However, no 2 states collect data in the same way. The State Health Workforce Data Collection Inventory tracks and describes the various health workforce data collection activities taking place across the country. This unique tool not only informs states about these efforts but also promotes communication and collaboration among them. Access to relevant and timely data is critical for developing effective health workforce programs and policies that can enhance health care delivery and improve health outcomes. The inventory serves as a valuable resource for states, supporting and encouraging the data collection necessary for effective health workforce planning.

References

1. Armstrong D, Moore J. *The Health Workforce Minimum Data Set (MDS): What You Need to Know*. Health Workforce Technical Assistance Center, Center for Health Workforce Studies, College of Integrated Health Sciences (formerly School of Public Health), University at Albany; 2015. Accessed December 18, 2024. https://www.healthworkforceta.org/wp-content/uploads/2023/07/MDS_Resource_Brief.pdf

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