To help inform health care workforce development planning in New Hampshire, the Endowment for Health supported a review of the workforce development plans of other states with large rural areas to understand their structure, components (i.e., areas of focus and strategies), and implementation plans. In 2020, ten states were identified for inclusion from among those involved in the National Governors Association Health Workforce Policy Academy and based on recommendations from New Hampshire’s Office of Rural Health and Primary Care. A consultant reviewed and summarized relevant documents for nine states (Alaska, Colorado, Kentucky, Minnesota, Montana, Oklahoma, North Carolina, South Carolina, and Wisconsin) and interviewed representatives from a sub-set of the states. Information for Indiana was not available. In 2021, the consultant conducted an additional scan to learn about progress made in the nine states included in the 2020 review and to understand the efforts of states identified by the Workforce Technical Assistance Center in New York as having made significant progress on health care workforce development, namely Utah, Virginia, Washington, and Indiana.

**Approaches:**

Four of the included states had workforce development strategic plans or action agendas: Alaska Health Workforce Coalition Action Agenda (2017 – 2021); Colorado Health Workforce Development Strategy (2014); Montana Healthcare Workforce Statewide Strategic Plan (2016); and Oklahoma Health Improvement Action Plan (2014 – 2016). In 2021, Utah was in the assessment phase of its planning process with the strategic plan expected in 2022. For five states, reports (e.g., on progress, shortages, barriers) were reviewed, including the HealthForce Minnesota Snapshot (2017 – 2018); Kentucky’s “Development of the Healthcare Workforce” (2015); Wisconsin’s Health Care Workforce Report (2019); Virginia’s Health Care Workforce Report (2020); and Washington’s Health Workforce Council Annual Report (2020). Most of the reports included recommendations for policy and program improvements. Six states dedicated significant resources to research centers, programs, or initiatives to inform healthcare workforce policy and programs, including the Program on Health Workforce Research and Policy, Sheps Center, University of North Carolina at Chapel Hill; the South Carolina Office for Healthcare Workforce; Washington State’s Sentinel Network; Colorado’s Health Systems Directory; Virginia’s Healthcare Workforce Data Center; and the Health Workforce Information Portal at the Bowen Center at Indiana University.

**Workforce Plan/Action Agenda Elements:**

The four workforce strategic plans/action agendas from Alaska, Colorado, Oklahoma, and Montana shared four common elements:

1. Data on workforce trends, projections on supply and need, and mapping
2. Context (e.g., relevant information on health reform and progress and barriers related to previous or current workforce development efforts
3. The specifying of strategic areas, goals, objectives, strategies, and action steps
4. A very inclusive definition of workforce involving multiple health care professionals and para-professionals.

The plans were organized around necessary systems change and capacity building initiatives (i.e., workforce data collection and analysis; coordination of workforce efforts; policy, advocacy, and infrastructure; and pipeline, recruitment,
and retention); more detail on these initiatives is provided below.

**Workforce Data Collection and Analysis:**

Of the 13 states included in the assessment, most track practice location, FTEs, specialty, age, and education for licensed professionals and the number and location of educational programs and residencies and clinical placements. They use these data to identify workforce shortages, track progress in building the workforce, inform and advocate for policy change and/or funding, determine the return on investment in various workforce initiatives, help communities engage partners in understanding and addressing local workforce needs, and to develop and identify best practices (e.g., how to retain staff or reduce clinic closures). Washington State's Sentinel Network gathers anonymous data from organizations across the health spectrum (i.e., Sentinels) on their evolving workforce needs and provides rapid access to data on a web-based platform for use in policy and planning, especially for higher education planning. The Sentinel Network was adopted in Connecticut in 2019. North Carolina's federally-funded Program on Health Workforce Research and Policy analyzes data related to and supports development of 19 different health professions. Although the Center has a national focus, one branch focuses on North Carolina's health workforce. Colorado's Health Systems Directory sources data from the Center for Medicare and Medicaid Services and 14 other data feeds, including multiple provider surveys. An algorithm produces reliable and timely supply and demand ratios by census block groups. Mapping provides detailed understanding of Colorado's areas of great need, which is useful for planning and prioritization. Mapping provides a detailed understanding of Colorado's areas of greatest need. Virginia's interactive Healthcare Workforce Data Center allows stakeholders to access user-friendly data on health workforce supply and demand across the Commonwealth; the tool has been useful in garnering support from legislators who can easily locate information about the needs in their districts.

**Policy, Advocacy, and Infrastructure:**

The policy priorities of the states typically included improvements in: reimbursement for primary care providers, and for telehealth and the broadband necessary to support it; funding for health professions education and tuition and loan programs; support for residencies/clinical placements and the platforms for facilitating them (i.e., web-based infrastructure for identifying, matching, and coordinating placements and managing paperwork) and capacity for data collection and analysis. The priorities also called for measures to enable Nurse Practitioners and Physician Assistants to practice at the top of licensure and for the easing of licensing barriers for new and out-of-state practitioners. Alaska's plan was unique in its inclusion of grant writing and coordination of submissions as part of capacity building. Kentucky included malpractice caps in its work. Documents reviewed as part of the 2021 assessment from Washington, Wisconsin, and Virginia addressed the impact of the COVID-19 pandemic on the health workforce in their respective states, including the increased demands placed upon the workforce and the challenges the pandemic caused in recruitment and retention.

**Pipeline, Recruitment, and Retention:**

The states were involved in a range of activities to cultivate, expand, and retain the workforce. Typical initiatives included education and camp programs to introduce youth to health/STEM careers and give them hands-on experiences, particularly in rural/underserved areas (RUAs); improving post-secondary educational and professional development opportunities across professions, including distance education for RUAs; and providing support (e.g., tuition/loan programs, stipends) for students in health professions education and to attract students from RUAs. The initiatives also included the creation of online job search/job posting and career planning resources, development of in-state residencies and rotations, especially in RUAs and for physicians, nurses, and other high priority health professions; cultivating and supporting mentors and preceptors in RUAs; succession planning for critical staff positions; and increased opportunities for professionals in RUAs to network with peers and participate in research.
Coordination and Implementation of Workforce Efforts:

Numerous organizations engaged in planning and workforce development. The planning processes ranged from siloed (e.g., for a single profession) to highly collaborative and inclusive. Generally, a government agency or government-funded entity (e.g., state health department, Primary Care Office, Office of Rural Health, Area Health Education Center) or academic institution was responsible for coordinating planning and overseeing implementation of health workforce development efforts. For example, in Colorado, the state’s Office of Primary Care is responsible. In Montana, the Montana Office of Rural Health and the Area Health Education Center (AHEC) share responsibility. In Alaska, the Alaska Health Workforce Coalition is responsible. The Alaska plan names responsible coalition partners (i.e., public sector and non-governmental partners) and champions for each strategy in the plan. In five states, government mandates to do workforce development exist, including legislative mandates in Colorado and Washington and as part of a Governor’s Council in Virginia, Oklahoma, and Indiana.

Health workforce planning in four states was tied to larger economic development and/or broader workforce development efforts. In Oklahoma, a subcommittee of the Oklahoma Governor’s Council on Workforce and Economic Development is devoted to healthcare workforce. Minnesota’s HealthForce is one of six Centers of Excellence collectively focused on the state’s workforce more broadly. In Washington, the Health Workforce Council operates under the Workforce Training and Education Coordinating Board, which addresses broader workforce development. In Indiana, the Bowen Center identifies health workforce development as an economic development imperative and has tied recommendations for health workforce development to the Governor’s and legislative agendas.

Recommendations:

Several recommendations were derived from the plans, reports, and interviews with state representatives. To guard against planning fatigue and skepticism, it is advisable to identify “seed” money for implementation so there is a guarantee that something from the plan will come to fruition soon after planning ends. Cultivating interest among foundations in supporting workforce development was described as critical to successful implementation of initiatives.

Having good data about the workforce was identified by multiple states as essential to planning; establishing return on investment; engaging the governor, state agencies, and legislators; and for attracting funding. Data should be objective, understandable, and easily accessible. It is important to work with state licensing boards and professional associations to get such data on health professions and to identify any gaps that exist. Those states that mandate the provision of data as part of the licensing process have a fuller picture of the status of licensed health professions than states where no such mandates exist. Reliance on multiple data sources and reporting by health organizations in Colorado and Washington, respectively, provides a detailed understanding of workforce needs in those states.

It is advantageous to participate in compacts that allow physicians and nurses licensed in one state to practice elsewhere. It is also worthwhile to invest in efforts that enable nurse practitioners and physician assistants to practice at the top of their licenses to increase clinical workforce capacity. Establishing in-state residencies and clinical placements, particularly in rural and underserved areas, is an effective workforce development strategy, as those who train in a particular place are more likely to stay there after the training concludes.

Several states saw advances in the use of telehealth during the pandemic and advised others to explore telehealth to learn who is using it and which entities are paying for it, understand its availability and utilization, and identify where gaps may exist.

AHECs are important partners for pipeline efforts in particular and should be engaged in planning and implementation. It’s also important to
publicize career ladders and available educational opportunities and financial support.

Several partners were identified as critical to implementation and sustainability of workforce development efforts. Trade associations (e.g., hospitals, long-term care) were recognized as important partners given their ability to effectively lobby elected officials for necessary changes. Engaging members of the general assembly and ensuring recommendations are aligned with the Governor's agenda and broader plans for economic development were described as increasing investment in health workforce development. State Departments of Labor and Commerce, generally experts on talent planning, should be consulted for lessons learned that could apply to health workforce development.

Inclusive planning and implementation can be slow and hard to manage because of the number of organizations involved and multiple competing priorities. While inclusive planning is preferable, it may be more fruitful to ensure critical access to care statewide exists in primary care (i.e., physicians, physician assistants, nurse practitioners, medical assistants, coders and billers, and health information technology staff), behavioral health (i.e., social workers, mental health counselors, psychologists, psychiatrists, peers/substance use disorder counselors), general surgeons, and maternity care (i.e., nurse practitioners, midwives, and obstetricians) and work from there to bring in other representatives of other professions and specialties.