

REPORT

Leveraging Career Pathway Programs

State Strategies to Combat Health Care Workforce Shortages



Leveraging Career Pathway Programs: State Strategies to Combat Health Care Workforce Shortages

BY SARAH JAROMIN

The National Conference of State Legislatures is the bipartisan organization dedicated to serving the lawmakers and staffs of the nation's 50 states, its commonwealths and territories.

NCSL provides research, technical assistance and opportunities for policymakers to exchange ideas on the most pressing state issues, and is an effective and respected advocate for the interests of the states in the American federal system. Its objectives are:

- Improve the quality and effectiveness of state legislatures.
- Promote policy innovation and communication among state legislatures.
- Ensure state legislatures a strong, cohesive voice in the federal system.

The conference operates from offices in Denver, Colorado and Washington, D.C.

NATIONAL CONFERENCE OF STATE LEGISLATURES © 2023



Executive Summary

A key element of [access to health care](#) is a well-distributed capable and qualified health workforce. As of 2023, more than [100 million people](#) across the United States live in a [Health Professional Shortage Area \(HPSA\)](#), as designated by the Health Resources and Services Administration. The demand for health workers is [expected to continue rising faster than the supply](#) and states are examining their role in bolstering and strengthening the health workforce.

Creating career pathway programs is one strategy states are using to address or mitigate workforce shortages in the long term. [Career pathway programs](#) create a talent pipeline of qualified individuals who are ready to fill needed health care jobs. Career pathway programs are designed to prepare individuals for the next level of employment, certification or educational level. These programs can focus on a variety of professions, including those that are in particularly high demand and/or low supply in any given state.

State legislatures may consider several strategies to support career pathway programs in their states. These include but are not limited to:

- Creating programs through existing state offices or state education institutions.
- Forging partnerships with key stakeholders to ensure pathway programs align well with workforce needs.
- Leveraging or pursuing federal funding to build career pathway programs.
- Establishing grant programs that allocate funding to new or existing recruitment and retention programs.

This report includes information and examples that outline how states are creating and leveraging these programs to create a sustainable pipeline of health workforce professionals for the future. The report focuses on the three types of programs most commonly used by states: K-12 programs, community college programs and undergraduate programs.

Introduction

Experts have [expressed mounting concerns](#) about the future of the health care workforce and its ability to meet increasing demands. An aging population and the increased prevalence of chronic illnesses and behavioral health conditions is creating more demand for health care professionals. Conversely, the [COVID-19 pandemic](#) negatively impacted the supply of health care workers as many left the profession due to [burnout, stress, anxiety and depression](#). To address these supply and demand challenges, states are pursuing a multitude of strategies and programs to recruit and retain health care workers.

Understanding the scope of health workforce shortages can provide policymakers with a baseline to assess the impact of policy changes or funding for workforce programs in the future. Shortages are projected to impact every sector of the health care workforce, with some professions—like the [direct care workforce and nursing](#)—facing more significant shortages than others.

Workforce Shortages By The Numbers:

Direct Care

3.2 million

Projected shortage in the U.S. health care workforce by 2026 of direct care professionals including medical assistants, home health aides and nursing assistants.

Registered Nurses

100,000+

registered nurses (RNs) left the workforce between 2020 and 2021, the largest exodus in at least 40 years. The Bureau of Labor Statistics expects about 203,300 vacant RN jobs through 2031 amid professionals leaving the workforce and overall growth in the profession.

Primary Care

37,800–124,000

Shortage of physicians by 2034, according to the Association of American Medical Colleges, across both primary and specialty care. Some researchers expect nurse practitioners (NPs) and physician assistants (PAs) will be able to fill some, but not all, of these gaps in care, especially within the primary care sector.

Maternal and Child Health

2.2 million

women of childbearing age live in areas with no hospitals offering obstetric care, obstetric providers or birthing centers. The maternal and child health workforce expects continuing shortages of family medicine physicians, general internal medicine physicians and OBGYNs but slight surpluses of nurse midwives, nurse practitioners and physician assistants.

Behavioral Health

27 states

are expected to have a combined shortage of at least 55,000 behavioral health professionals by 2026, while the other 23 states are expected to build a surplus of these professionals in the same time frame

In addition to overall shortages, workforce needs vary greatly by geographical area, including rural and urban disparities. Some states may experience a surplus within a specific health profession, while others may experience significant shortages. As a result, different states' policy efforts may prioritize certain professions.



Career Pathway Programs

Creating a talent pipeline through career pathway programs of qualified individuals ready to fill needed health care jobs is a longer-term strategy to address or mitigate workforce shortages. [Career pathway programs](#) are a “series of structured and connected education programs and support services that enable students to advance overtime to better jobs and higher levels of education and training.” Each career pathway program is designed to prepare individuals for the next level of employment, certification or educational level. Pathways often offer education and credentials that build on one another to facilitate multiple levels of career advancement.

Career pathway programs are often created to target professions that are in particularly high demand and/or low supply. Across states, a wide range of programs target different professions. Pathway programs can be used at any stage in the career of the profession, with some [starting as early as elementary school](#). These programs often consist of partnerships between education systems, public and private sector employers, and community-based organizations. While designs vary, most programs provide some support to students through career or academic mentorship, apprenticeships, financial support, training programs, scholarships, networking opportunities and more.

Research finds that career pathway programs may [increase employment and earnings](#) more than traditional workforce development programs such as job fairs, mentorship programs, on-the-job training, etc., across all ages and types of programs. A systematic review of studies focused on adult learners in career pathway programs found participants were more likely to [attain higher wages and annual earnings](#) and retain employment within their field than their peers. These impacts continued to grow even two years after completion of the program. One [South Carolina program](#) focused on high school students found that combining a career pathway program with a career counseling service enhanced students’ sense of career and academic self-efficacy. This included increasing their motivation to complete school, their willingness and interest to take more challenging courses and preparedness for college and work. Overall, research shows career pathway programs [increase educational progress and employment](#) in target industries.

Career pathway programs are not without their challenges. According to a study conducted by the Department of Labor, the largest [obstacles](#) these programs face are funding and sustainability. This is often due to the temporary nature of grant programs and the difficulty of maintaining cross-organizational partnerships over time.

Career Pathways Framework

Creating a career pathway program is not always a linear process. According to the Perkins Collaborative Resource Network, there are **six key elements** to creating a successful career pathway program. These include:

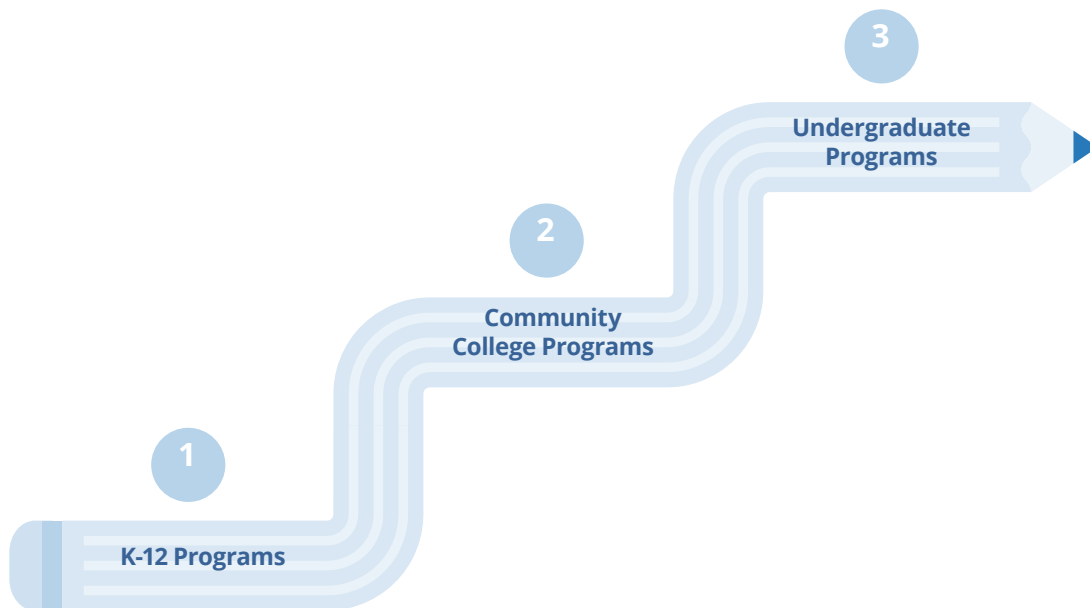
- Build cross-agency partnerships and clarify roles.
- Identify industry sectors and engage employers.
- Design education and training programs.
- Identify funding needs and sources.
- Align policies and programs.
- Measure system change and performance.

This report will mainly focus on design education and training programs, but will touch on each element in some capacity.

State legislatures have important roles in the creation and facilitation of successful career pathway programs. These include:

- Creating programs through existing state offices or state education institutions.
- Forging partnerships with key stakeholders to ensure that pathway programs align well with workforce needs.
- Leveraging or pursuing federal funding to build career pathway programs.
- Establishing grant programs that allocate funding to new or existing recruitment and retention programs.

Career Pathway Programs Throughout the Life Cycle



Career pathway programs may be created for various stages in the education and training continuum of a professional. This continuum or “life cycle” can be divided into three main categories:

K–12 Programs

From 2020–2021, [8.3 million high school students](#) participated in career and technology educational pathway programs in a variety of different fields—an increase of 800,000 students from the previous year. High school students with at least two course credits in a career pathway program have [a 95% graduation rate](#), which is 10% higher than the national average.

Most of these K-12 pathway programs have one of three goals:

- Increase general knowledge and familiarity with career options in the health care workforce.
- Direct certification or training that is immediately transferrable to employment.
- Funnel students into a health care focused college program.

This section features a few state examples of K-12 programs including the **California** Career Pathways Trust, **Colorado** Career Pathways for Students for Critical Occupations in Growing Industries, and **Florida** Career and Technical Education Curriculum Frameworks.



California: The California Career Pathways Trust

California established the [California Career Pathways Trust](#) (CCPT) in 2013 through [AB 86](#). The legislation appropriated \$250 million for regional and local implementation grants to establish or expand existing career pathway programs for kindergarten through community college. Grants were awarded to school districts, county superintendents of schools, direct-funded charter schools and community colleges for two years—the first year for planning and the second year for implementation. Grantees also received technical assistance and connections with local business partners to align training programs with necessary career skills and employer needs. Due to a combination of strong demand and successful programming, the legislature codified CCPT ([SB 858](#)) into code.

[Visalia Unified School District](#) in Tulare County, Calif., is just one example of a district that received funding from CCPT. The school district leveraged funding to implement [Linked Learning Academies](#) at five high schools, including a program focused on promoting careers in health sciences. Participating students in the health pathway spend half of the school day attending classes focused on careers in the medical field and gaining hands-on experience in clinical settings in addition to their coursework. [Participating students](#) were more likely to graduate high school (and with more college credits) than their peers and were more likely to report they felt prepared for a career in their field.



Colorado’s Creation of Career Pathways for Students for Critical Occupations in Growing Industries

Colorado [HB 1274](#) (2015) created the “Career Pathways for Students for Critical Occupations in Growing Industries” program. This bill directed the state to create the talent pipeline development infrastructure for use in creating career pathways for students. Each year, the state will create at least one career pathway program in an industry of need. There is a particular focus on creating partnerships with post-secondary institutions and creating better transitions for students coming out of high school. For example, in 2019–2020, the program focused on the [behavioral health industry](#) and created pathways for counseling, therapy, social work, psychology, and psychiatry and psychiatric nursing. [My Colorado Journey](#) is the platform for professionals to access all the resources and pathways that have been compiled through this program from 2015 to present.



Florida Career and Technical Education (CTE) Curriculum Frameworks

In 2007, the Florida legislature passed the [Career and Professional Education Act](#) to provide a statewide planning partnership between businesses and the education community and improve the quality and rigor of career programming in K-12 education. The act incentivizes schools to



Maternal and Child Health (MCH) Leadership, Education, and Advancement in Undergraduate Pathways (LEAP) Training Program

In 2006, HRSA created the [Maternal and Child Health \(MCH\) Leadership, Education, and Advancement in Undergraduate Pathways \(LEAP\) Training Program](#), formerly referred to as the Maternal and Child Health Pipeline Training Programs. The purpose of the LEAP program is to promote the development of a diverse and representative public health and health care workforce by recruiting undergraduate students from underserved or underrepresented backgrounds into MCH public health and MCH-related health professions. HRSA awards funding to universities to recruit, train and mentor undergraduate students in a comprehensive MCH-focused approach. As of 2022, HRSA [is funding six programs](#).

Each training program [includes](#) some form of academic supports (advising, peer mentors, faculty mentors, etc.), required courses or training, community engagement and support for students' professional development. Some schools also included research opportunities or conference presentations.

A [survey of 550 graduates of HRSA-funded LEAP programs](#) found that 70% continued to work in an MCH-related field and 80% applied to graduate school, with 67% gaining acceptance. Overall, graduates of the program reported they felt confident and knowledgeable in the field and highlighted how supported they felt from faculty while in the program and at their training sites.

incorporate more pathway programs through their funding formula, which increases funding with the number of students who receive industry-recognized credentials.

Through this act, the Florida Department of Education [creates curriculum frameworks](#) each year for schools to easily incorporate career pathways into their learning environments. Florida has created curriculums for more than 100 courses that facilitate students transitions into careers in health. Of the 100 courses, 90 of the courses relate directly to training in a specific health care profession which allows students to transition directly into the workforce if they choose to.

Community College Pathway Programs

Community colleges remain one of the primary educational institutions receiving funding and being used within career pathways. Community college programs provide students with directly transferable credits to further their education or obtain advanced credentials.

This section features examples of community college pathway programs including Good Jobs **Hawai'i**, **Indiana's** Certified Nursing Assistant Bridge Program, and **Maine's** Partners in Behavioral Health Pathways.



Hawaii: Good Jobs Hawai'i

[Good Jobs Hawai'i](#) is a state-sponsored pathway program run through the University of Hawai'i Community Colleges designed to help local residents qualify for high-quality jobs and careers while helping employers meet their demand for a skilled, local workforce. This program offers free skills training in high demand industries, including health care, for professions such as:

- Adult Residential Care Home
- Certified Nurse Aide
- Dental Assisting
- EKG Tech Certification
- Medical Receptionist and Patient Services
- Mental Health Technician
- Pharmacy Technician
- Phlebotomy Technician

The program is primarily funded through a federal grant from the [U.S. Economic Development Administration](#) and the City and County of Honolulu, among other sources.



Indiana: Certified Nursing Assistant (CNA) Bridge Program

The [Governor's Health Workforce Council](#) was established in 2016 to coordinate health workforce-related policies, programs and initiatives with a particular focus on reducing cost, improving access and enhancing quality. In 2018, [SB 223](#) required additional information to be collected from individuals in a variety of health professions who renewed their license online and established additional health workforce data management strategies. The state's largest community college, [Ivy Tech Community College](#), leveraged this data to create a Certified Nursing Assistant (CNA) bridge program. This program gives students five credit hours towards a "Certificate in Pre-Nursing Studies" which is considered a pathway into the Practical Nursing and Associate of Science in Nursing programs.



Maine: Partners in Behavioral Health Pathways

[Washington County Community College](#) offers students multiple pathways to advance their careers in the behavioral health workforce through stackable credits and credentials. In 33 credit hours, students can earn a certificate in Substance Use Disorder and Recovery or



STATE SPOTLIGHT

Washington's Apprenticeship Program or Direct Care Workers

In 2001, Washington State established the [Health Workforce Council](#) to address health workforce issues. The main goals of the council are to provide updates to policymakers on health workforce data and needs, track progress on the implementation of new programs and bring together key stakeholders to create sustainable solutions. In 2016, the Council launched the [Health Workforce Sentinel Network](#) which features a short survey of Washington's health care employers that identifies emerging needs and signals changes in health workforce demand. The goal is to use this information to impact education, training and policy partners to meet these evolving needs.

Using the information collected from key stakeholders on the state of the health workforce, the [Long-Term Care Project](#) was launched in July 2022. This project is expected to be a three-year endeavor culminating in a career pathway program from certified nursing assistant and home care aides to becoming licensed practical nurses. This is the first apprenticeship program in Washington to target the direct care workforce.

Long-term care facilities were able to nominate individuals to take part in the program. Those nominated were enrolled at local community and technical colleges to begin the pathway. After completing their prerequisites, individuals will be placed into an apprenticeship. This program is expected to continue training additional cohorts each year.

become a community-based Mental Health Rehabilitation Technician. Students may then pursue an associates of applied science in health and human services or an associates of applied science in career studies. Finally, students may pursue a bachelor's degree, more professional development experiences or more credentials at partnering local academic institutions.

In 2021, the Maine State Legislature increased Maine's Community College System [funding by \\$10 million](#) in an effort for Washington County Community College to keep tuition and fees low, ensuring this pathway program remains accessible to students.

Undergraduate Programs

Another target population for career pathway programs is undergraduate students. These programs are either a continuation of a high school or community college program or independent programs. Undergraduate career pathways can be used to funnel students into education programs for more highly skilled sectors of the health care workforce like physicians, dentists, advanced practice registered nurses and other professions that require post-baccalaureate degrees. They also can be leveraged as the next step in career advancement through obtaining a bachelor’s degree.

This section features examples of undergraduate programs including **Iowa’s** Nursing Ladder Program, **Nebraska’s** Rural Health Opportunities Program and **Utah’s** Rural and Underserved Utah Training Experience.



Iowa: Nursing Ladder Program

At Indian Hills Community College (IHCC) in Iowa, students can enroll in [their state-approved “ladder program” in nursing](#). Students can choose from two primary paths or levels:

- Level 1 is a pathway to becoming a licensed practical nurse (LPN).
- Level 2 is a pathway from LPN to an associate’s degree in nursing, the next step to becoming a registered nurse (RN).

The college has agreements with the [University of Iowa](#), [Grand Canyon University](#) and [William Penn University](#) as part of the ladder program. These colleges will accept IHCC credits and allow students to continue along this career pathway to earn a bachelor’s degree in nursing (BSN). These universities feature online classes and flexible schedules that allow students to work full-time in nursing while also taking BSN coursework. These partnerships are designed to ease the transition and provide further career advancement while also cutting costs.



Nebraska: Rural Health Opportunities Program

The [Nebraska Rural Health Opportunity Programs and Kearney Health Opportunity Programs](#) are pathway programs designed to recruit and educate students in health care fields who are committed to practicing in rural areas upon graduation. The Nebraska Legislature passed [LB 792](#) in 2022 which provides ongoing annual funding for these programs through 2025. This program targets both traditional and nontraditional students. The U.S. Department of Education [defines nontraditional students](#) as students who have at least one of the following characteristics: older than typical age, part-time attendance, being independent of parents, working full time while enrolled, having dependents, being a single parent or being a recipient of a GED/high school completion certificate.

Undergraduate program options include medicine, dentistry, medical laboratory science, physical therapy, physician assistant and radiography. Students accepted into the program will receive a full scholarship to a participating college, are put into a like-minded cohort and once they complete their requirements are accepted into the health care program they applied for at the University of Nebraska Medical Center.



Utah: Rural and Underserved Utah Training Experience

The Rural & Underserved Utah Training Experience (RUUTE) program consists of a [collection of programs](#) at the University of Utah. The goal is to “improve medical education and training, health care access and long-term socio-economic benefit for rural and underserved communities of Utah and the intermountain west by expanding interest, awareness, and placement of students and physicians.” RUUTE provides opportunities for K-12 students, undergraduate students, medical students and residents. Offerings range from community outreach, mentorship, gaining hands-on experience in the medical field, housing and mileage reimbursement, application support, and more. RUUTE is funded [through appropriations from the Utah legislature](#).

One unique program offered through RUUTE is the [Summer Undergraduate Research Experience](#). This is a 10-week research experience for undergraduate students enrolled in the states of Utah or Idaho who may want to pursue a career in rural health care. This program allows students to gain experience with research, work on projects related to rural and underserved health, and improve their resume/CV for future admission into medical school.



PROGRAM SPOTLIGHT

Minnesota, North Dakota and Wisconsin's Rural Residency Program

With support from HRSA, a multi-state health system collaborated with an accredited Midwestern doctor of nursing practice/family nurse practitioner (NP) program to expand a [transition-to-practice program](#) into a one-year residency program for new NPs. The regional integrated health system, which represented four clinics in North Dakota, Minnesota and Wisconsin, identified a need to improve recruitment and retention of rural NPs through enhanced transitional support. The program combined a traditional nurse practitioner residency curriculum with other focus areas that are particularly relevant to rural practice.

The program is a formal postgraduate residency training program for new NPs working in rural areas. The program includes curriculum, weekly meetings with mentors, twice-monthly didactic lectures, resiliency sessions and personalized onboarding activities based on clinical needs assessments. Instead of the traditional pay of around 60% to 70% of market value of traditional residency programs, this program pays the NPs at market value and allows them to bill for services. Within 12 months, there was an 11% increase in productivity, turnover decreased from 15% to 9% and participants said they would be extremely likely to recommend the program to other new graduates.



Career Pathways for Nontraditional Students

Some career pathway programs may want to target or focus on [nontraditional students](#), such as second career students or parents, who do not fit neatly within existing education models or training frameworks. Creating pathway programs for nontraditional students may look a little differently than their traditional counterparts as these students face a unique set of challenges. They include work/caregiving responsibilities during the day, lack of reliable transportation, no childcare, lack of educational literacy and cost.

The [Office of Planning, Research and Evaluation \(OPRE\)](#) conducted an analysis of these challenges and identified potential strategies to better support non-traditional students or workers. These include:

- Offering flexible delivery strategies such as offering evening courses, self-paced instruction or technology-supported distance learning.
- Creating accelerated courses that are condensed into a shorter amount of time.
- Assigning tailored advisors to students to ensure all of the students' needs are being met.
- Providing referrals, stipends or other assistance for outside needs such as housing, childcare or transportation.
- Granting scholarships within the program or assisting students in applying for financial aid or outside scholarships.



Creating New Professions – New York's Advanced Home Health Aides and Peer Advocate and Recovery Coaches

In 2016 New York enacted legislation [A10707](#) to establish a new profession: the advanced home health aide. This new profession opens up a pathway for career advancement for current and future home health aides. Advanced home health aides can perform certain advanced tasks like administering routine or prefilled medications and other tasks specified by the State Education Department in consultation with the Department of Health. Advanced tasks must be performed in accordance with an authorized health professional's orders and are directly supervised by a licensed registered professional nurse.

In addition, New York's [Staten Island Performing Provider System](#) and partners piloted a 30-hour recovery coach training program to create a new profession: Peer Advocate and Recovery Coach. Trained recovery coaches are embedded in hospitals and recovery centers to provide people in crisis with counseling and resources, and connect them with a local treatment program. The training program targeted individuals with lived experience with addiction or unhealthy substance use, to develop a peer support dynamic. The system offers scholarships to make the training program more accessible.



The program also trains community health workers and care managers through partnerships with local higher education and labor unions. Together, they designed and developed certificate training programs for these positions that meet specific, employer-defined needs and include college credits. They also offer scholarships to economically disadvantaged students who want to pursue education in social work and mental health counseling. The program was successful at creating a variety of new jobs and decreasing incidence rates of mental illness.

Conclusion

Legislators and state agencies play an important role in creating, crafting and funding career pathway programs to create a future pipeline of health care workers. States have great flexibility in choosing what professions to target and how they would like to target them.

This report is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$813,543 with 100% funded by HRSA/HHS. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government.

NCSL Contact:

health-info@ncsl.org



7700 East First Place, Denver, Colorado 80230, 303-364-7700 | 444 North Capitol Street, N.W., Suite 515, Washington, D.C. 20001, 202-624-5400

ncsl.org

© 2023 by the National Conference of State Legislatures. All rights reserved.