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Center *for* Rural Health
University of North Dakota
School of Medicine & Health Sciences

POLICY BRIEF

North Dakota Health Care Workforce: Planning Together to Meet Future Health Care Needs

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Part 1 of 2

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INTRODUCTION

Ensuring an adequate health care workforce for North Dakota citizens requires creating a shared statewide agenda. To begin this effort, the Center for Rural Health, in partnership with other state organizations, held a North Dakota Healthcare Workforce Summit in Bismarck in December 2006. The purpose of the summit was to explore current and emerging challenges associated with the supply and demand of health care workforce in the state, and to begin to develop an action plan to address these challenges. Close to 200 people attended the summit, including over 50 state legislators and representatives from state government, statewide organizations, economic development commissions, health care employers and academicians, among others. Clearly, the challenge of ensuring that all North Dakota citizens have access to health care providers has the attention and will require the action of a wide range of organizations and individuals, including policymakers, educators, employers, and others.

Summit Objectives:

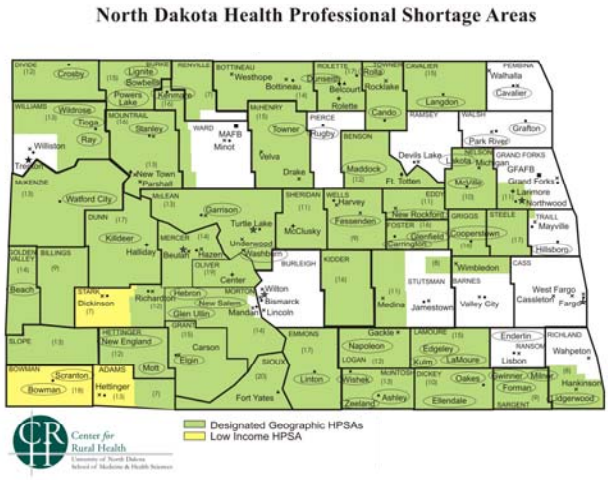
1. Share action-oriented plans from other rural states.
2. Consider current and projected characteristics of the health workforce in ND and the United States.
3. Describe selected efforts underway in North Dakota to expand, recruit and retain the workforce.
4. Develop immediate and long-term strategies to address the health workforce needs of North Dakota.
5. Inform the development of a statewide plan through collaboration.

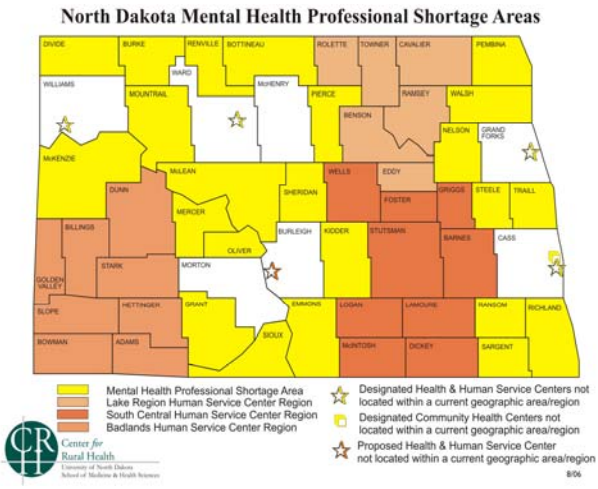
SCOPE OF THE PROBLEM

Between now and 2012, seven of the top ten fastest growing occupations across the nation are projected to be in health care.[1] Just 13 years from now, demand is expected to outstrip supply for a number of health care occupations including physicians with a shortage of 100,000 physicians and 800,000 nurses.[2] Shortages of health care providers are problematic because they can negatively impact health care quality and access to health care services. Shortages can also increase stress on available providers and contribute to higher health care costs by increasing the use of overtime pay and expensive temporary personnel.

While workforce shortages are a challenge for the entire health care system, they are likely to be most severe in rural areas of the United States. Underscoring this point, the Institute of Medicine recently noted that, "efforts should be made to boost the supply of health professionals in rural areas".[3] However, demand for health care clinicians is not just about meeting rural versus urban health care needs in America. Rather, increasingly the market for the health care workforce is global, with rising international competition. As a result, the workforce that North Dakota competes for is a workforce that can be recruited from or recruited to not just other locations in the United States, but other countries.

Against this backdrop of increasing demand, North Dakota starts at a distinct disadvantage. Already 81 percent of the state's 53 counties are designated as federal primary care health professional shortage areas.





One-third of North Dakota counties are designated as oral health shortage areas and 94 percent of the state's counties are designated as mental health professional shortage areas. Exacerbating this problem are survey data suggesting that approximately 26 percent of the state's physicians and 24 percent of the state's nurses are planning to retire by 2015-less than 10 years from now. These data are consistent with concerns expressed in 16 community forums held across the state over the past three years. In meetings held by the Center for Rural Health, difficulty in maintaining an adequate workforce, ranging from clinical laboratory and radiology technicians to emergency medical service providers, was a consistent concern. Urban-based health care providers are also expressing workforce concerns. Some urban concerns overlap with those of rural providers and communities, while other urban workforce issues are somewhat different (e.g., attracting physician specialists and high turnover rates for nurses).

North Dakota faces current and emerging challenges related to features of both supply and demand. For example, North Dakota's current **supply** of physicians, dentists, dental assistants, podiatrists, pharmacy technicians, emergency medical service providers and radiology technicians is below the per capita average.[4] In terms of **demand,** Job Service of North Dakota expects significant growth (over 10 percent) in demand for pharmacists, occupational therapists, physical therapists, medical and clinical laboratory technologists and technicians, physician assistants, registered nurses and others by 2014.[5]

Demand for health care providers is driven by many factors ranging from the increase in our state's aging population to the significant geographic distance that many clinicians cover in order to reach populations in need of health care. **While addressing workforce supply requires a multifaceted approach, state government is a key player in many states**. In fact, across the United States, at least eight other states have recognized the emergent need to ensure an adequate workforce and have held statewide meetings within the past few years. At least 13 states have recently enacted workforce related policies and programs to help ensure that their citizens have access to health care providers.

Given the demographic trajectory of North Dakota as well as anecdotal and quantifiable information about our health care workforce, the state clearly faces emerging challenges to ensure access to an adequate workforce. State policy makers and other stakeholders should carefully plan and act in order to ensure that: 1) the day to day health needs of our states'

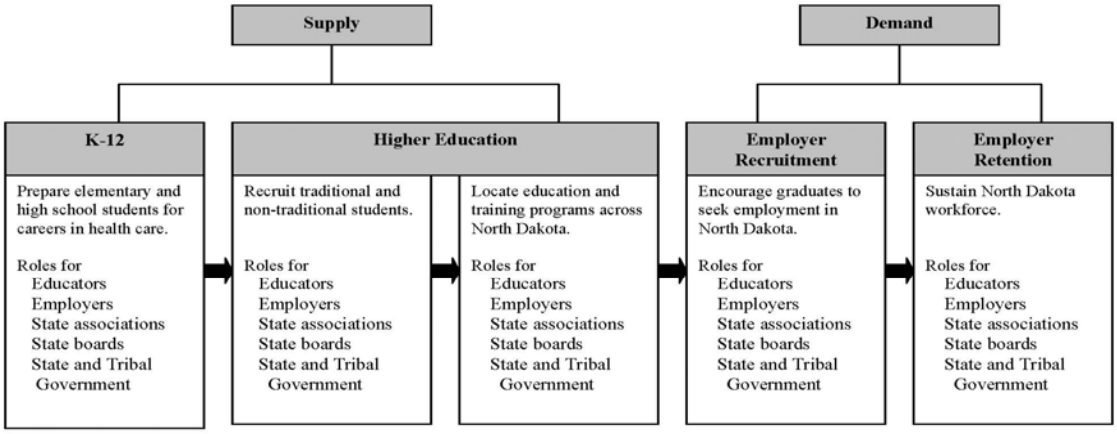
communities are met-from helping people stay healthy and avoid illness to effectively managing acute and chronic diseases; 2) the state is well positioned to meet major health care challenges ranging from avian flu to bioterrorism, and 3) the economic health of communities is not compromised by lack of availability of health services for both small and large businesses.

THE WORKFORCE PIPELINE

The model used to characterize production, recruitment and retention of health care providers is often referred to as the workforce pipeline. Each step of the pipeline offers opportunities to target either supply or demand, including specific areas such as workforce training, recruitment and retention.

The pipeline begins with preparing elementary and high school students for careers in health care and attracting high school and non-traditional students into health professions programs. It incorporates accessibility to training programs across North Dakota (on-site as well as distance learning) recruitment and retention of health care professionals by employers and communities across the state. Many states have developed programs and policies that address different steps of the pipeline.

The North Dakota Health Care Workforce Pipeline

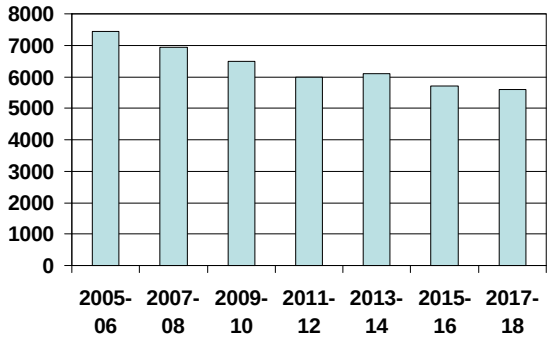


With specific information policymakers, employers, educators, and others can efficiently target actions to each part of the pipeline. However, information about the health care workforce pipeline in North Dakota is fragmented at best. Nonetheless, using available information, the following provides a snapshot of aspects of North Dakota's workforce pipeline.

Step 1: Kindergarten through 12th grade - Prepare elementary and high school students for careers in health care

In 2005, over 70,800 children were enrolled in kindergarten through eighth grade and over 34,500 were enrolled in 9th through 12th grade. The number of high school graduates however is expected to decline between now and 2018.

Projected North Dakota Public School Graduates
2005-06 through 2017-18



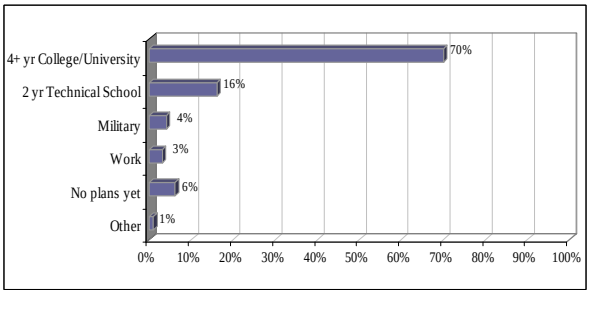
Source: http://www.wiche.edu/policy/knocking/1988%2D2018/profiles.asp

In a survey of high school students, the vast majority indicate plans to attend college with more students indicating an interest in a health care career (38 percent) than any other occupational area. Most of these students said they would like to go into medicine, nursing or physical therapy. Nearly half of these students show interest in more than one choice, such as health care and business indicating the lack of clarity in career preference. High school students also note that they would be more likely to choose a health care career and work for a particular facility if the facility paid their tuition. [6]

Step 2: Higher Education Students - Recruit traditional and non-traditional students

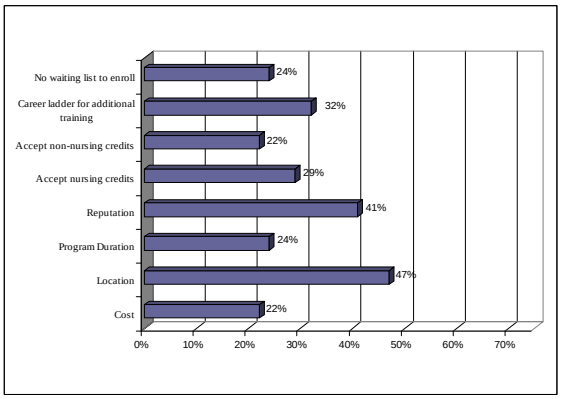
Most high school students in North Dakota plan to attend a 4-year college or university and 73 percent plan to attend school in-state.[6] While no statewide information is available about other health professions, nursing students frequently indicate that the location of the educational program, the availability of a career ladder for additional training, no waiting list to enroll, and the reputation of the academic program are factors that influence their choice of educational program.[7]

High School Student Post - Graduation Plans



Source: Hanson, B., Moulton, P., Rudel, R. & Plumm, K. (2006). High School Student Survey Results. Report of the North Dakota Nursing Needs Study. Center for Rural Health, University of North Dakota School of Medicine and Health Sciences.

Most Important Factors in Choosing Education Program-Nursing Students



Source: Moulton, P. & Speaker, K. (2004) Student Survey Results Report part of the North Dakota Needs Study. Center for Rural Health, University of North Dakota School of Medicine and Health Sciences

Step 3: Higher Education Programs - Locate education and training programs across North Dakota

North Dakota has a strong educational platform from which to offer and extend health professions education, including 11 university system institutions, six tribal colleges, and two private institutions of higher education. Currently, among the health professions education programs, nursing is the only profession with statewide information about faculty and information technology infrastructure-two essential components of maintaining and growing health professions education programs.

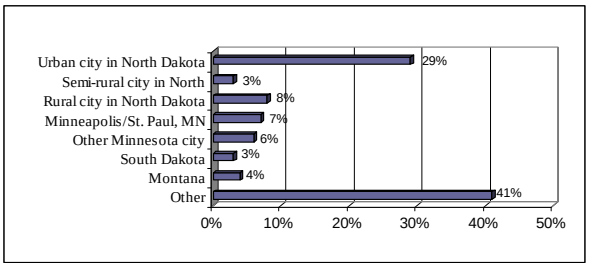
Availability of qualified faculty is a significant concern in the expansion of health professions education programs. Nursing faculty data indicate that the average age of faculty is 51 and 40 percent of North Dakota nursing faculty are projected to retire by 2013, six years from now. [8]

Information technology to outreach educational programs is, to some extent, in use in North Dakota. For example, most North Dakota nursing programs have used video conferencing to outreach their classes. Some have also started to apply newer technology such as web-based video streaming which can be viewed on computers. Nursing programs indicate that lack of funding and lack of time to train faculty are the major barriers to increasing the use of technology. Other barriers include lack of high speed internet and cable television in some parts of the state as well as student readiness. (The latter has implications for K-12 preparation). [9]

Step 4: Health Provider Recruitment - Encourage graduates to seek employment in North Dakota

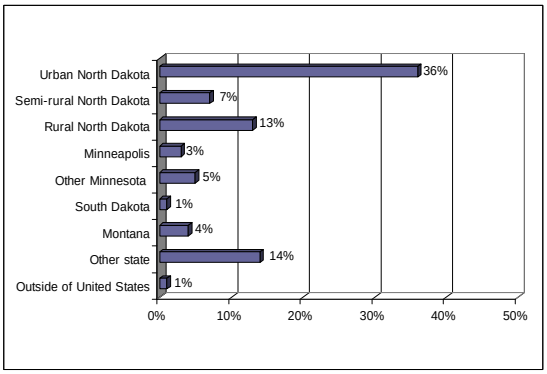
It will take an additional 33 primary care physicians just to remove the health professions shortage designations in the state.[10] Also, based on requests for assistance, some urban centers in the state find recruiting for other specialty physicians challenging as well. Available information on nursing students indicates that 46 percent plan to work in North Dakota along with 40 percent of medical students/residents. [7, 11]

Medical Students & Residents Planned Work Location



Source: Moulton, P. & Amundson, M. (2004). Medical Student and Resident Preliminary Survey Results Center for Rural Health, School of Medicine and Health Sciences Professions Tracking Program.

Nursing Students Planned Work Location



Source: Moulton, P., & Speaker, K. (2004). Student Survey Results Report part of the North Dakota Needs Study. Center for Rural Health, University of North Dakota School of Medicine and Health Sciences

Other than medicine and nursing, there is no information about the plans of other health professions students to seek employment in the state. Likewise, there is no information available about strategies that students believe would be most effective to keep them in North Dakota.

Step 5: Health Provider Retention - Sustain North Dakota's workforce

Turnover rates are a measure of retention and are an indication of fluctuation in staffing within a facility. Statewide information on turnover rates for health care providers, other than nursing, is unavailable. Turnover rates for registered nurses is currently at 17 percent (about one out of every six registered nurses has changed positions within the past year).[12]

POLICY STRATEGIES FOR NORTH DAKOTA

Seven major action areas were identified for North Dakota policy makers. These action areas are a product of the discussion of approximately 200 participants that attended the workforce summit. The terms related to each of these action areas are in bold and were generated by summit attendees. To illustrate how these action areas could be implemented, Center for Rural Health staff has provided examples of possible strategies for each of these action areas. A subsequent report will include an action plan that targets activities relevant to other stakeholders, including health care organizations and education programs. Together, these reports will provide a proposed statewide agenda, primarily based on input from the Workforce Summit.

1. Centralized Information Resource on State Health Professions

Focus: track trends, acquire sound data, statewide assessment of students, central data clearinghouse

In order to target resources efficiently, the Institute of Medicine strongly recommends that states obtain sound information about their supply of health professionals.[3] Unlike some other states, North Dakota policymakers, health care providers and educational institutions have limited information about the production and availability of most health disciplines. Incomplete and outdated information makes efficiently targeting resources very challenging, (e.g., developing or expanding workforce training programs).

Strategy 1: Support the development of a Health Workforce Tracking Program to collect and analyze workforce trends. The tracking program would conduct statewide assessments of need, placement and retention of health care providers. The information will guide North Dakota policy makers, health organizations, and other interested stakeholders in tracking and addressing current and emerging workforce issues.

2. Statewide Recruitment and Retention

Focus: incentives to encourage health professionals to locate in underserved areas

An infusion of state support would assist North Dakota's communities in recruiting and retaining health care professionals.

Strategy 1: Target one-time state funds to match local city and/or county resources to address local/regional workforce issues. These grants could be used to address locally identified needs through the start up or expansion of efforts that target K-12 initiatives, career transition programs for non-traditional students, interdisciplinary training, network arrangements with educational institutions, tuition and student housing offsets, or other local efforts.

Strategy 2: Currently, state support for statewide recruitment and retention efforts are minimal. Similar to other states, North Dakota could strengthen these activities by allocating funds to support the development of on-going state specific recruitment and retention strategies and activities.

3. Loan Repayment/Scholarships

Focus: financial incentives in return for service obligations, tax incentives
Loan repayment programs provide students and medical residents with financial support in return for an agreement to provide service for a specified period to an underserved urban or rural area. The current state program is inadequate to meet North Dakota workforce needs. The program is limited to physicians, nurse practitioners, physician assistants, and dentists and does not meet current demand. In addition, North Dakota does not provide loan repayment for nursing, allied health, mental and behavioral health or dental assistant/hygiene professionals. While there is limited administrative support provided through time-limited federal grants, there is no state support for the administration of the state loan repayment program.

Strategy 1: Increase financial awards to cover at least four physicians per year (previously the number of physicians allowed in the program was dependent on available funds; this increase would solidify the appropriate funding for a designated number of physicians each year). Provide state resources to support program administration that includes: monitoring, placement and retention of providers over time, evaluating effectiveness of placements, identifying factors that facilitate, and act as barriers to successful placements.
Strategy 2: Develop a loan repayment program (with a service obligation to an underserved urban or rural area) for nursing, allied health and dental assistants/hygienists. Provide adequate state resources to administer the program.

4. K-12 Career Development Programs

Focus: expose students to health careers, implement career development programs
There are a number of career development programs that could be replicated across North Dakota to encourage interest in health occupations at early ages. The Grand Forks school system's program is the most extensive and, as with other initiatives, could be replicated across the state.

Strategy 1: Through the Department of Public Instruction and/or other state agencies, further develop and expand K-12 programs that expose children to health careers.
Strategy 2: Create incentives that encourage partnerships among health organizations, local school systems and job development organizations (e.g., economic development commissions) to create growth strategies for health care workforce. This effort brings together the expertise of different groups to implement innovative programs.
Strategy 3: Match local resources to develop additional career development programs in school systems in North Dakota. Demonstration pilot projects can be created involving multiple schools (rural and urban) sharing health career development programs.

5. Higher Education Training Models

Focus: collaboration across educational programs, non-traditional models, interdisciplinary training
Interdisciplinary health education concentrates on building learning teams of health professions students who work and learn together in off-campus training sites.

Strategy 1: Expand training opportunities by adding state support to the federal SEARCH program (Student-resident Experiences and Rotations in Community Health). This program involves students from dentistry, medicine, mental health, behavioral health, and nursing. Additional resources could expand the number of participants and the number of communities involved as training sites.
Strategy 2: Foster collaboration among higher education entities to share faculty, resources and increase efficiencies (e.g., centralize placement for students across health care facilities by region).

6. Higher Education Innovative Faculty Incentives

Focus: increasing faculty numbers, incentives for innovative program development
Educational systems need additional resources to increase the training of health professions students.

Strategy 1: Increase the number of faculty slots based on high need health professions. Identify and select key disciplines and support development of the academic infrastructure needed to produce this increase.
Strategy 2: Review and address compensation issues to create incentives to prepare, attract and retain faculty.
Strategy 3: Develop a financial incentive program for faculty/educational programs to provide additional compensation (e.g., bonuses) for innovative programming targeting interdisciplinary training, rural-focused training, or electronic based program outreach.

7. Higher Education and Employer Partnerships

Focus: distance education programs, resources for telecommunication, capital infrastructure
Many local health care systems have the capacity to expand clinical training opportunities. By capitalizing on available rural and urban clinical locations and encouraging development of career ladder programs, students are exposed to opportunities in high need areas both in terms of geography (e.g., rural environments) and health professions (e.g., new career opportunities). Additionally, capital and information technology infrastructure development offer opportunities to extend the reach of academic programs. For example, a significant level of technology is available in rural and urban health care settings across the state. The financial burden of upgrading this technology and expanding to different locations for remote-site training requires additional resources. Also needed are financial offsets that allow students to relocate from their educational community to other communities for clinical training experience.

Strategy 1: Offer state-based match to local health organizations and develop additional rural training experiences. This can take the form of small grants to communities to support stipends for students in training, student housing and related expenses, offset additional training

responsibilities and other capacity improvement and student participation incentives. This can increase the number of training sites available to students, allowing educational program expansion and decrease pressure that some urban health care facilities in particular face as they attempt to meet requests to place students in clinical experiences.
Strategy 2: Support career transition through career ladder programs that reach into rural and urban communities (e.g., some coursework available online). This could be a match program involving local health care, community and state resources. It is particularly important to communities that don't have resources to fully initiate local programs.
Strategy 3: Assess distance education needs and opportunities to provide a more complete understanding of current efforts, gaps and opportunities that can be pursued through academic-health care provider partnerships. Fund an analysis that explores the number of education programs and corresponding disciplines that utilize distance education, number of students educated, placements, and factors that facilitate or act as barriers to distance education.
Strategy 4: Improve physical space necessary to support expanded efforts for increasing workforce capacity. Capital infrastructure grants can assist with reconfiguring space in health care facilities where training occurs as well as in educational institutions.

WORKFORCE POLICY STRATEGIES USED BY OTHER STATES

Many states are actively pursuing plans to increase, recruit and retain health care providers. From Vermont to Minnesota to New Mexico, policymakers and others are considering how to produce and deploy their health care workforce more effectively. Sharing similar concerns, national organizations such as the Institute of Medicine are also discussing strategies to address the increasing challenge of ensuring a well prepared workforce. **To help inform policy makers about strategies that could be applied in North Dakota, the following matrix provides brief descriptions of public policy initiatives underway in other states.**

STATE POLICY MATRIX

Focus	Workforce Pipeline --- STATE and TRIBAL GOVERNMENT	Cross reference to other Stakeholders
Prepare K-12 for health care careers	**South Dakota**[13] Department of Education, the Health Occupations for Today and Tomorrow program, and Healthcare Organizations are addressing the following areas: -Use technology and web-based resources to promote health careers and providing career program list for high school students to aid in choosing classes. -Provide mentoring opportunities for students that encourage math and science classes. -Provide job shadowing opportunities and address HIPAA restrictions.	Education Employer State Associations
Recruit traditional/ nontraditional students	**Nebraska**[14] Created a Midwest consortium for dental student education and financing that recruits from rural areas of Nebraska, South Dakota, Kansas, and Wyoming.	
	Alaska[15] 2003-04 Status of Recruitment Resources and Strategies (SORRAS) study commissioned by the Alaska Department of Health and Social Services, Primary Care and Rural Health Unit to describe and document current recruitment strategies, effectiveness, costs, and resources used by primary care clinics and small hospitals. SORRAS study systematically complied data on rural Alaskan health professional recruitment.	
Education training programs	**New Mexico**[16] Establish a separate state fund that can be used as seed money for the rapid development of new health professional education/training programs through State universities/colleges.	
	New Mexico[16] -Legislation to reform the education funding formula to reflect more accurately the cost of operating. -Assure that funds allocated under the formula are appropriately applied to mix of educational programs. - The new formula must cover the full cost of off-campus and distance education programs.	
	Vermont[17] Healthcare Workforce Summit plan includes fostering collaborations among community institutions, health care providers, and public health programs in order to complement treatment with prevention and promotion. - Simplify certification requirements for nursing professors/faculty to increase capacity (Link higher education with health care institutions to pay faculty competitively.)	Education Employer Board/Regulation
	Texas[18] Workforce Board developed a partnership with area hospitals and nursing schools to loan 65 nurse clinicians to teach in 13 academic programs. The initiative immediately allowed for an increase of 163 students plus it has fed conversations about curriculum and helped hospitals to recruit nursing graduates.	Education Employers
Encourage graduates to seek employment	**New Mexico**[16] - Expand existing state scholarships and loan programs to more professions. - Loans for service, loan repayment and stipend programs to be made available for: • Dentists • Dental hygienists • Psychiatrists • Selected medical specialists	Education

Focus	Workforce Pipeline --- STATE and TRIBAL GOVERNMENT	Cross reference to other Stakeholders
Encourage graduates to seek employment (continued)	**Loan Repayment Programs include:** KY NC PA TX MN OH SD UT NY OR TN WA	Education
	Massachusetts[19] Legislation to encourage work in primary care; tuition is reduced from $12-13,000 to $4000 if a student commits to four years of service.	Education
	New Mexico[16] Establish incentives for professional relocation: - Differential Medicaid reimbursement for providers in specific areas. - Tax incentives for establishing, maintaining practice in specific areas. - Low/no cost capital financing for new practice.	Community
Sustain workforce	**New Mexico**[16] Enforce the Clean Claims Act. A clean claim for a payment for health care service has no defect or impropriety. A defect or impropriety includes lack of required sustaining documentation or particular circumstance requiring special treatment which prevents timely payment from being made from a claim. Violation of the Clean Claims Act can result in penalties issued to the insurance company from the Insurance Department.	Employers
	New Mexico[16] Develop and implement targeted strategies addressing health related taxes: - Reduce personal income taxes for providers. - Remove tax barriers to support establishing and maintaining practices in underserved areas. - Tax incentive for employers who offer health care coverage to their employees	
	New Mexico[16] - Create annual New Mexico Health Workforce Forum. - Shift some New Mexico Health Policy Commission resources from health financing issues to health workforce planning and policy development.	
	New Mexico[16] Improve collaboration among state agencies that employ health professionals and engage in workforce planning to avoid duplication, eliminate unnecessary competition and respond more effectively and quickly to emerging needs.	
	New Mexico[16] Secure financial support for recruitment and retention of health professionals in New Mexico. Sources may include: - Tobacco settlement funds - Blue Cross/Blue Shield conversion foundation - Medicaid funds leveraged by NMDOH investments in recruitment/retention	

Focus	Workforce Pipeline --- STATE BOARDS/REGULATIONS	Cross reference to other Stakeholders
Prepare K-12 for health care careers	**Utah**[20] High school students shadow healthcare workers. Enrollment to become licensed EMTs and certified CNAs is offered.	Education
	South Dakota[13] Department of Education, the Health Occupations for Today and Tomorrow Program, and Healthcare Organizations will address the following: -Provide more job shadowing opportunities and addressing HIPAA restrictions.	
Recruit traditional/ nontraditional students		
Education/ training programs	**South Dakota**[13] Department of Health, post-secondary educational institutions and local healthcare organizations to develop a clinical education consortium and clearinghouse to coordinate internship sites and address barriers to rural internships.	Education Employers
	Vermont[17] Healthcare Workforce Summit plan includes fostering collaborations among community institutions, health care providers, and public health programs in order to complement treatment with prevention and promotion. - Simplify certification requirements for nursing professors/faculty to increase capacity (Link higher education with health care institutions to pay faculty competitively.)	Education Employer Government
Encourage graduates to seek employment	**South Dakota**[13] Department of Health and local healthcare organizations to establish a clearinghouse for vacancies and recruitment programs for healthcare workforce and clinical site opportunities.	State Associations
Sustain workforce	**New Mexico**[16] New Mexico encouraged cooperation among legislators, licensing and regulating board to streamline and coordinate efforts with the following focus: -Conduct study of state licensing processes and make recommendations that would simplify and consolidate these processes. Examine possibilities of multi-state licensing. -Make uniform requirements for credentialing by Medicaid and other state programs. -Create a competency-based licensing/certification process. Allow cross license recognition of competencies. For example, core competencies required in one health profession to be used in partial satisfactions of the requirements in another. -Review potential for new/expanded health professional practice based on identified needs.	State Associations

Focus	Workforce Pipeline --- STATE BOARDS/REGULATIONS	Cross reference to other Stakeholders
Sustain workforce	**New Mexico**[16] Streamline/Standardize State credentialing requirements: Promote sharing and recognition of credentialing between agencies, reducing unnecessary duplication (Arizona model)	
	West Virginia[14] Pediatricians and school nurses can be cross-trained in dental care so they can deliver oral health screening and treatment services.	Education
	Kentucky[21] - Electronic application for license renewals should make data more easily accessible for the following disciplines: Pharmacy, Nursing, Dentistry, Medical, Psychology. -Questions include gender, race/ethnicity, and primary and secondary work sites. -Electronic data collection will provide reliable and accessible workforce data. -Producing a more standardized data set could be useful to attain appropriate distribution of health professionals in rural and low-income areas.	

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