

Stepping up to the Future

NH CITIZENS HEALTH INITIATIVE

Strategies to Address the Issues of Access to New Hampshire's Primary Care Workforce

A Report to Governor John Lynch

Respectfully submitted by:

**The New Hampshire Citizens Health Initiative
Workforce Committee
Quality of Care Policy Team**

Prepared by:

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Executive Summary

In December 2006, the Workforce Committee of the New Hampshire Citizens Health Initiative was charged to develop a report to the Governor recommending strategies to address the shortages of primary care providers in New Hampshire. In this report we have summarized critical national issues associated with primary care workforce development, described the implications of these issues specific for our state's workforce, and propose several recommendations for the Governor's action.

Access to primary care providers and primary care services plays a crucial role in meeting patients' needs for preventative health services, acute and chronic illness care, expert coordination and navigation through an increasingly complex health care system. However, in the summer of 2007, the American College of Physicians (ACP) noted that "primary care, the backbone of our nation's health care system, is at risk of collapse".

While the demand for primary health care services is rapidly growing, our supply and ability to produce more primary care providers is rapidly decreasing. For example, over the past eight years (1998-2006) the national number of medical school graduates entering primary care residencies has decreased; Family Practice by 51%, Internal Medicine by 18%, OB-GYN by 16%, and Pediatrics by 8%. In 2006, only 20% of internal medicine residents chose primary care (80% progressed on to specialty care). Additionally, 59.5% of last year's family practice residency positions were filled by non-U.S. medical school graduates.

Behavioral (mental) health providers, oral (dental) health providers, and nurses are also experiencing similar increases in demand for services and concurrent decreases in supply of providers. The average age of the nation's Registered Nurse workforce is now fifty-five years of age and over 40% of the nursing workforce is projected to retire within the next five years. And, while nurses can expand their clinical training to become licensed to provide access to primary care services independently through physician's offices or community health centers, significant shortages in nurse educators limit the ability of schools to expand these educational programs.

The reasons for this dramatic decrease in capacity of primary care workforce are multi-factorial and complex. However, our committee agreed that the drivers of this change are: 1) increasing medical school debt (In 2006, the average debt of a primary care physician just out of school was \$160,000) and debt affects choice of medical specialty, 2) decreasing earning capacity of primary care providers (primary care physician earnings are now typically one third to one half that of the other medical or surgical specialties), 3) decreasing quality of professional life (the primary care provider is often the provider of first resort, as well as the provider of last resort).

The implications of these changes for New Hampshire include: 1) an increased number of vacancies in the state for primary care providers, 2) increased time needed to recruit new providers, 3) significant national competition for a diminishing supply of primary care providers, 4) a decreasing supply of primary care providers, especially providers available to serve community health centers, mental health centers and other safety-net organizations.

In the end however, as has been documented in a myriad of studies, a decrease in timely access to primary care services will significantly increase the cost of care and decrease the quality of care for all N.H. residents.

Key findings of the committee: 1) There are critical shortages of primary care providers in New Hampshire and these shortages are projected to increase. 2) New Hampshire does not have a pro-active, statewide organization responsible for measuring, planning and developing an adequate primary care workforce. 3) Disparities and inequities in the financing of primary care services nationally and in N.H. inhibit the development of an optimal primary care workforce. 4) The state needs to take advantage of new models of primary care delivery that improves the efficiency and the capacity of the health care system.

Recommendations to the Governor include: 1) Develop a sustainable model to pro-actively measure, plan and develop the state's primary care workforce. 2) Actively recruit and retain primary care providers to N.H. through competitive incentive programs. 3) Expand the state's health careers programs to "grow our own" future health care providers. 4) Expand "dedicated" positions for academically qualified N.H. residents in regional health care professional schools. 5) Take action on these recommendations through collaborative initiatives.

These recommendations call for public-private partnerships to effect positive change and to encourage New Hampshire to become a national leader in designing innovative models of primary care work force development and reimbursement.

Background

The Workforce Committee of the New Hampshire Citizens Health Initiative

The New Hampshire Citizen' Health Initiative (the Initiative) was formed in early 2005 building on the work of the Endowment for Health's Pillars Project, with support from the University of New Hampshire and the Office of the Governor. The desire to build a long-term, sustainable structure to improve access to and management of health care services fueled its development. The goal of the Initiative is to build a system to measurably improve the health of the people of New Hampshire over the next decade.

The New Hampshire Citizen' Health Initiative is a collaborative of a broad cross section of citizen representatives, joined by businesses, medical providers, and community agencies. This Initiative seeks to achieve a plan to create a system of care for New Hampshire that promotes health; where quality is assured and care is accessible, affordable, effective and safe. Three main policy teams have been established to move this work forward: The Finance and Information Team, the Health Promotion and Disease Prevention Team, and the Quality of Care Team.

The Quality of Care Team identified retention, recruitment and access to primary care providers as critical issues for improvement of New Hampshire's health care system. The Workforce Committee (the Committee) was formed in December of 2006 in response to this priority setting activity. The Committee held its first meeting in December of 2006 and since that time has worked to define the barriers to primary care workforce development in New Hampshire; and through a process of key informant interviews and educational sessions, describe activities that would strategically address these challenges in the short- and long-term.

Purpose of this Report

This report, Strategies to Address the Issues of Access to New Hampshire's Primary Care Workforce, was prepared at the request of Governor John Lynch. The aim of this report is to propose strategies that can be actualized in the next three years to address the current shortages in New Hampshire's primary care workforce.

Acknowledgements

We extend our appreciation to the many organizations and their representatives who volunteered their time and resources to support the development of this report.

Introduction

The U.S. Faces a Looming Primary Care Workforce Crisis

“Primary Care, the Backbone of the Nation’s Health Care System, is at Grave Risk of Collapse.”¹
(The American College of Physicians, 2007)

In the increasingly complex health care system of today, the primary care provider (including physicians, physician assistants, licensed nurse practitioners, dentists, and behavioral health providers) play a crucial role in providing front line care to meet patient needs for acute and preventative health services, as well as for managing chronic disease and providing comprehensive long-term care². Additionally, primary care providers identify, coordinate, and help patients navigate specialty care services as appropriate in our complex health care system of today.

Unfortunately, while our need for primary care physicians is growing, our ability as a nation to produce and retain these providers is decreasing. National trends confirm that there has been a significant decline over the past decade in physicians choosing primary care (internal medicine, family practice, pediatrics, OB-GYN) as a specialty. Over the past eight years, the number of U.S. medical school graduates entering family practice has decreased by 50%; internal medicine has decreased by 18%, and Pediatrics by 8%¹. In 2006, only 20% of those physicians graduating from internal medicine residencies chose primary care, compared to 80% proceeding to specialty care¹. The number of family practice residency positions in the U.S. has decreased by 17%, and, of those positions, only 40.5% were filled in 2006 by U.S. medical graduates¹. With one-third of actively-practicing physicians in the U.S. at age 55 years or older, and with the increasing demand for health care services by an aging population, a crisis in access to primary care services is looming nationally. It is projected that this shortage of primary care providers will have its greatest impact on underserved and poorer communities and populations³.

Concurrently, as is the case for primary care physicians, we have an increasing demand for, but decreasing supply of, registered nurses. PricewaterhouseCoopers⁴ forecasts a shortage of 400,000 to a million bedside nurses by 2020, in part due to the fact that 40% of the present nursing workforce has an average of 55 years and is projected to retire within the next five years. Nationally, there are 125,000 nursing position vacancies in the U.S., and in 2006, 150,000 qualified nursing applicants were turned away from nurse educational programs due to the lack of registered nurse educator staff. These projected and real shortages are particularly worrisome when interpreted within the context of the looming primary care physician shortage. Just as primary care physicians provide critical frontline care to patients so, too, do registered nurses in multiple capacities. Most relevant for primary care workforce enhancement, registered nurses can continue their education and broaden their clinical training to that of advanced practice nurses such as licensed nurse practitioners and midwives, thus helping to improve access to primary care.

Behavioral (mental) health and oral health (dental services) are also facing critical workforce shortages nationally. Although the prevalence of mental health problems in children is increasing, the number of child and adolescent psychiatry residency programs has decreased nationally from 130 in 1980 to 114 in 2002⁵. By 2020 it is projected that the U.S. will have 8,312 child psychiatrists but a need for 12,624⁶. Similar declines in dental personnel and services are concurrently occurring. The US dental workforce peaked at 59.5 per 100,000 persons in 1990 but is projected to decline by 14% to 52.7 per 100,000 in 2020⁷.

Understanding the Crisis

National Trends

Several common factors are affecting the recruitment and retention of qualified primary care providers including physicians, nurses, physician assistants, dentists and behavioral health specialists. These factors include increased educational tuition, high levels of student indebtedness, newly trained workforce seeking more flexible work schedules with fewer administrative burdens, and an inadequate supply of primary care educators and training sites ⁸. Below we provide a few examples of these trends.

- *Increasing medical student indebtedness affects choice of specialty:* On average, from 2001-2006 costs of attending medical school have increased by 11.1% for public medical schools and by 4.3% for private medical schools to typically over \$200,000 over four years. About 85% of medical students graduate in debt. In 2006 the median debt of a physician just out of training was \$120,000 (public medical school) and \$160,000 (private medical school) ⁹.
- *Reimbursement for those choosing to work in primary care is not competitive with other medical specialties:* The threshold for debt repayment is greater for primary care physicians who typically earn 30% to 50% less on average than do specialists ⁹. This is also true for the nursing profession in which workforce shortages have been correlated with pay levels ⁴.
- *New graduates are seeking quality of work/life balance:* More physicians are choosing to work part-time or flexible schedules; many seek positions that do not require hospital rounding, and limits to on-call/after-hours coverage. Nurses ranked excessive paperwork and heavy workloads as the leading factors for dissatisfaction with their jobs. ⁴
- *An aging, retiring workforce:* Thirty-five percent of physicians nationwide are over the age of 55 and most of them will retire within the next ten years ⁸. Additionally, 40% of the active nursing workforce is at an average of 55 and is projected to retire within the next five years ⁴.
- *Nursing educators are in short supply and this limits the capability of nursing training programs to expand:* Almost half of the qualified applicants to nursing schools were turned away due to a lack of capacity of schools to accept them. The shortage of qualified nurse educators is associated with several factors including low salaries (20-30% lower than clinical nursing compensation), an aging faculty nearing retirement, the expense to schools of running nurse training programs, and lack of appropriate clinical training sites ⁴. Further compounding the problem is the lack of federal funding support for nursing school education programs and lack of appropriate nursing clinical training sites.

Implications for New Hampshire

Over the past year, articles have appeared in a number of the local New Hampshire newspapers identifying access to primary care providers as a significant health care issue. These anecdotes, along with the compelling national data on the decreasing supply of, and decreasing access to primary care services, has led the Committee to focus its efforts on addressing this issue by identifying the scope of the problem in New Hampshire and potential strategies to directly address it.

New Hampshire is feeling the effects of the national trend in medical student preference for more lucrative specialty-care focused professions over primary care practice. In the highest quality and most cost-effective health care systems in the world, the ratio of primary care physicians to specialty-care physician is typically 1:1 (50% primary care; 50% specialty). Today in the U.S., 38% of physicians are primary care doctors while 62% are specialists ³. In New Hampshire, in January of 2007, 42% of the state's physicians were registered as primary care doctors and 58% as specialists ¹⁰.

An increased number of primary care vacancies exist throughout the state in private primary care practices, hospital-based practices, dental offices, community mental health centers, and community health centers ¹¹. Recruitment timelines now average 18 to 24 months per vacancy for providers including for dentists. Since 2004, family practice vacancies, known to the New Hampshire Recruitment Center, have increased from 25 vacancies in 2004 to 45 vacancies in 2007 ¹¹. While these numbers of primary care vacancies may seem small, they equate to a potential lack of a regular source of primary care for over 112,000 New Hampshire residents, based on an average family practice panel size of 2,500 patients ¹¹. Unfortunately, these shortages are compounded by the increasing number of vacancies that New Hampshire is experiencing among its nurse practitioner and physician assistant provider population ¹¹. (Please see Appendix One.)

Studies confirm that timely access to primary care is associated with improved quality of care as well as decreased costs of care ¹²⁻¹⁴. However, access to primary care is becoming even more difficult as more and more providers seek positions that provide a better balance between work and quality of life. Nationally, fewer than half of primary care providers offer early morning, evening, or weekend office hours and one-third or more have no office hours during these times ². This trend is also true in New Hampshire. The New Hampshire Recruitment Center has reported that when primary care providers are available to be hired, they are most interested in practices which offer flexible and/or part-time hours and frequently seek positions with support available for following patients in the hospital and for providing on-call services.

In the public sector, New Hampshire's 14 Community Health Centers' ability to provide access to preventive and primary care services for over 100,000 people at 30 locations throughout the state is currently being severely jeopardized by primary care workforce shortages. Community Health Centers operate in medically underserved areas of the state and provide care for underserved populations. These centers collectively, as of November 2007, are trying to recruit sixteen primary care physicians, two dentists, and eight nurse practitioners or physician assistants ¹¹. These vacant positions make it impossible for these centers to expand their capacity to see new patients and the wait time for existing patient visits is growing. These vacancies also result in lost revenue for the Community Health Centers, thereby exacerbating their already fragile financial position, and in many cases, increasing the economic burden for providing care to private sector patients.

In the private sector, health insurers who track primary care practices in New Hampshire that are "open" to accepting new patients or "closed" to new patients report that about 25% of primary care practitioners (a total of almost 400 practitioners) are currently closed to new patients. Putting this into perspective we conclude that in New Hampshire about one-third of internal medicine physicians, one-fourth of family practice physicians and one-seventh of pediatric physicians are currently not accepting new patients. Thus, the ratio of "open" primary care physicians to specialists is closer to thirty-one percent versus the reported 42% (actual) making the goal of 50% even more remote ¹⁰. Additionally, there are major geographic variations in the accessibility to "open" primary care practices across the state. For example, in one large New Hampshire city, 90% of internal medicine physicians and 80% of family practice physicians have closed their practices to new patients ¹⁵ and provider organizations in this community are currently actively recruiting an additional nine family practice physicians and up to six internal medicine providers.

Recruitment of dentists, and behavioral health providers, is also a challenge especially in specific urban areas and more geographically remote areas such as the north country which is predominately designated as Health, Dental, and Mental Health Shortage Areas; as well as having designations as Medically Underserved Areas/Populations. Nationally, maldistribution of dental providers poses a bigger problem than overall supply shortages. Because New Hampshire has no dental school of its own, recruitment to fill vacant positions as well as new positions created to meet the needs of the state's growing population, remain challenging to fill. And, like medicine and nursing, the "graying" of the dental workforce compounds the issues of workforce planning. According to a 2003 report, almost 50% of New Hampshire's dentists were over fifty years old and expected to retire in the near future ¹⁶.

Nearly all of the ten mental health centers, which are the largest providers of mental health services to New Hampshire's children, are recruiting providers. Inconsistencies exist across the state as to what mental health services are available to the population if eligibility criteria for state mental health services are not met. And, although New Hampshire has a mental health parity law and residents are supposed to have mental health coverage, many evidence-based practices that patients require are not covered by the benefits offered by their insurance plans.

It is our belief that a shortage of primary care providers presently exists in New Hampshire and that this trend will significantly escalate over the next three to five years. The implications of lack of access to primary care services will continue to be associated with rising health care costs and decreasing quality of health care services.

Committee Process

The Committee was charged by Governor Lynch with determining the optimal primary care workforce for New Hampshire based on projected needs for 2010 and to determine steps that would bring that result about.

The Committee determined that specifying the exact composition of the workforce structure would be neither productive nor possible given available information. The Committee did, however, engage in a process intended to identify the key factors inhibiting the state's workforce from developing to meet the existing and emerging needs of the population. This assessment was based on a review of available data and information on the workforce, a survey of key individuals regarding workforce needs, input from selected experts and stakeholders (please see Appendix Two), as well as the experience of the Committee members themselves in addressing workforce needs. The group then engaged in a series of discussions to build consensus around the key findings and recommendations to be presented to the Governor's office.

For the purposes of our work, we have developed a definition of primary care, primary care practice, primary care physician and other primary care health professionals, which have been adapted from documents developed in 1994 by the American Academy of Family Physicians and subsequently addressed in The Future of Family Medicine Project in 2004¹⁷. We have agreed on a comprehensive definition of primary care which includes medical care, dental care, mental health and behavioral health services. (Please see Appendix Three.)

The findings and recommendations found in the next section of this report are not a comprehensive summary, but rather represent the issues and potential responses to these issues, that the Committee believes will produce the greatest benefit for workforce development in the specified time frame of three years.

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Committee Findings

Primary care workforce vacancies exist in New Hampshire currently among primary care physicians, nurse practitioners, nurse educators, physician assistants, dentists, drug and alcohol counselors, psychiatric nurse practitioners, and child psychiatrists. (Please see Appendix One.) Major concerns that were identified for building an adequate workforce for the future in New Hampshire are listed below.

- New Hampshire's only medical school (Dartmouth Medical School (DMS)) is a private school with a mission of education and research. DMS supports only one New Hampshire family practice residency training program (based in Concord). In comparison, Maine has five family practice residency programs. These "local" programs are a key supply to primary care physicians who will remain to practice within the state in which they are trained, as well as provide primary care services while in the residency training program.
- There is no state dental school or residency training program for dentists in New Hampshire.
- New Hampshire has not "purchased seats" at out-of-state medical or dental schools that ensure slots are available for New Hampshire students. This is common practice in our surrounding states for example, Vermont and Maine. The approximate cost of a "purchased seat" is \$5,000 per seat. DMS is committed to enrolling a minimum of five qualified New Hampshire residents each year and often has more than five enrolled. In the past five years, DMS has averaged about seven New Hampshire resident admissions to the Medical School each year.
- In New Hampshire there are two Nurse Practitioner programs (one at the University of New Hampshire and one at Rivier College) and one Physician Assistant program (at the Massachusetts College of Pharmacy and Health Sciences-Manchester). However, these schools are experiencing shortages of qualified educators which is severely curtailing the professions' ability to meet current and future workforce needs.

New Hampshire does not have a designated, proactive, state-level body to address its existing or future primary care workforce development needs in a comprehensive way. In addition, the state has not developed an adequate data infrastructure for implementing or coordinating such state-wide planning.

- Available data on the licensed provider workforce is not sufficiently detailed for use in studying provider capacity or planning for current and future needs for primary care workforce expansion or improvement.
- Perception of workforce shortage is often defined by the recruitment experience of individual provider organizations. This definition of need is based on fluctuating market forces and is not adequate for planning purposes.
- There is no system to track, monitor or provide incentives to people living in New Hampshire to choose health careers.
- Funding and support for the promotion of health careers early in the educational cycle and supporting those aspirations throughout the primary, secondary, higher education systems is inadequate.
- Resources that might be accessed by inviting stakeholders invested in developing a high quality primary care workforce to participate and contribute more actively to the workforce development process remain untapped. In particular, engaging private industry and local community-based groups in public-private partnerships has been demonstrated to yield positive results.

Disparities and inequities in financing of the health care delivery system nationally, as well as in New Hampshire, inhibit the development of an optimal primary care workforce. Addressing these disparities would lead to a more rational and robust primary care delivery system that better matches the needs of the state's population. (Please see the report prepared by Donald Kollisch, MD, Appendix Four.)

- *Compensation disparity with specialty care:* The average compensation for primary care providers is significantly lower than that of specialists and is not commensurate with the increasing demands of primary care and the key role it plays in the health care delivery system.
- *Recruitment incentive disparities compared to other states:* Compared to many other states, New Hampshire dedicates fewer state funds to loan repayment/forgiveness activities, and receives less support from private organizations in this area as well. The state has recently lost its federal financial support for loan repayment programs. Due to the level and duration of support offered, and the lengthy contracting process for state loan repayment activities, New Hampshire is often not competitive with surrounding states on recruitment incentives for primary care providers.

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- *Reimbursement disparities for innovative and wrap-around services:* Emerging care models, such as telehealth, group visits, and wrap-around services are not reimbursed on par with established core medical services. As a result, services that could extend the capacity and effectiveness of primary care services are largely not utilized.
 - *Compensation disparities for clinical education staff compared to practice:* Several categories of primary care health education in the state have difficulties in recruiting and retaining staff for the advanced education of providers. This is particularly true for nursing and advanced nursing degrees.

The state has not taken advantage of new models of primary care delivery which improve coordination and efficiency and produce benefits in terms of extending the capacity and increasing the effectiveness of existing resources.

- Hospitalist providers are increasingly important in attracting and retaining 'traditional' primary care providers in communities as their focused hospital work is directly correlated with the supports needed by providers working in the community who are seeking a better balance between work demands and quality of life.
- The focus on Care Coordination/Management and the concept of the Medical/Dental Home continue to be only marginally implemented in the state. Concepts, such as the medical home, and chronic condition care management; that promote an established relationship with a primary care provider as a first point of contact for the entire medical system, are still acknowledged as key ingredients in the effective use of available resources and should be promoted.
- The design of new models of care practices must emphasize cost-effective, patient-centered primary care outcomes and rebalance care delivery from its narrow focus on specialty care delivery to maximize the opportunities inherent in a system well-grounded in primary care delivery³.

Committee Recommendations

“Primary Care”, for the purposes of these recommendations, is defined as primary medical, behavioral and oral health services. It is important to note, however, that there are active state-level leadership committees working to address policy issues of workforce development for mental/behavioral and oral health. These committees, the Oral Health Coalition and the NH Mental Health Commission will be included in the implementation of these recommendations as appropriate.

1. Develop a Sustainable Mechanism for Statewide Primary Care Workforce Planning and Development.

- A. Establish an entity that is accountable for coordinating state-wide planning, development, and implementation of this work.
- B. Establish a data infrastructure and analysis methodology in the state for identifying where primary care professional shortages exist and for projecting where the needs will be in the future.
- C. Enhance the provider licensure process to collect data for workforce planning. The Vermont provider survey is an excellent example of how this data collection and analysis program would work in New Hampshire.
- D. Design an effective model of workforce care delivery informed by real-time, comprehensive data, information and benchmarks creating a more efficient primary care service model.
- E. Expand workforce planning and development to include other key components of the health care system for example: pharmacy, nutritionists, occupational therapy, etc.

2. Recruit at least 50 New Primary Care Providers to Practice in New Hampshire with an Emphasis on Medically-Underserved Regions of the State by 2010.

- A. Redesign New Hampshire’s Primary Care Loan Repayment Program to be competitive with our neighboring states (please see Appendix Four).
 - i. Physicians and dentists in New Hampshire are currently eligible for an offer of loan repayment of \$40,000 over two years with an extension to a third year if there is funding. To be more competitive compared to other New England states (Maine offers up to \$100,000 over four years, Vermont offers \$120,000 over six years) we propose that New Hampshire offer up to \$40,000 each year and extend the award to up to four years per provider.
 - ii. Nurse practitioners and physician assistants are currently eligible for \$20,000 over a two year period. We recommend that New Hampshire extend this program to four years with up to a total of \$40,000 available to each eligible nurse practitioner or physician assistant.
- B. Increase annual funding for the Loan Repayment Program by at least \$5 million through public-private partnerships.
 - i. Contest the federal decision to not award loan repayment funding to New Hampshire.
 - ii. Increase state funding for loan repayment. The Maine Loan Repayment Program is funded 50% by the National Health Service Corps and 50% from Maine’s taxpayer dollars. In Vermont the Primary Care Educational Loan Repayment Program is funded by the State of Vermont, through the Department of Health and is administered by the Area Health Education Center (AHEC).
 - iii. Request that New Hampshire financial institutions apply community reinvestment and economic development grants to this program. Additionally, in Vermont the Freeman Foundation Educational Loan Repayment and Scholarship Program provides scholarships through a gift to the College of Medicine to recruit and retain physicians of any specialty to rural and underserved areas of the state.
- C. Make arrangements with appropriate medical and dental schools to ensure slots for academically qualified New Hampshire students. This is commonplace in Maine and Vermont. Then monitor, motivate and provide incentives to students to attend medical and dental school and return to New Hampshire to practice.
- D. Encourage and support our state higher education system’s expansion of the number of students trained in nursing and physician assistant programs.
- E. Increase national marketing to attract primary care professionals to work in New Hampshire.

3. Support New Hampshire Health Careers Pipeline Programs. (Please see Appendix Five.)

- A. Increase support of the Health Careers Pipeline Program to \$350,000 annually. These funds are to be used specifically as seed money for the existing infrastructure to further shape the Health Careers Program Pipeline, to build on or start-up activities in pilot communities, and to maintain continuity of services.
- B. Promote and support health career aspirations at every level throughout the educational cycle including elementary, middle, secondary, college, and practice levels of education.
- C. Target efforts where they are most needed, for example: in rural and underserved communities, on economically and educationally disadvantaged young people, and in support of health professions experiencing greatest shortages.
- D. Work with academic and community-based partners to leverage resources for existing information and training technology.
- E. Expand the number of community-based training sites that host primary care residents and interns by providing stipends to the students and the preceptors.

4. Examine the Public and Private Sector Reimbursement for Primary Care and Preventive Services.

- A. Conduct a comparative analysis of primary care reimbursement in New Hampshire relative to other states and increase reimbursement, if needed, to be competitive with other states in order to attract primary care professionals to work in the state.
- B. Conduct an analysis of implications of the Medicaid reimbursement inequity compared to the commercial market on the provision of primary care services in the state.
- C. Benchmark Medicaid rates to Medicare to allow growing sensitivity to market changes and maintain pricing sensitive to provider access.
- D. Explore and implement reimbursement methods that support the strategic use of telehealth, evisits, eprescribing, group visits, care coordination and other advancements in the use of electronic health information systems.

5. Take Action

The Governor, through his office, will provide leadership for primary care workforce development in the state:

- A. Convene an educational summit to inform and educate potential partners on the problem and solutions.
- B. Identify leaders who will take responsibility for implementing these recommendations
- C. Provide public recognition and support to these leaders.
- D. Provide education sessions for the legislature on the topic of primary care workforce development in the state of New Hampshire as summarized by these recommendations.

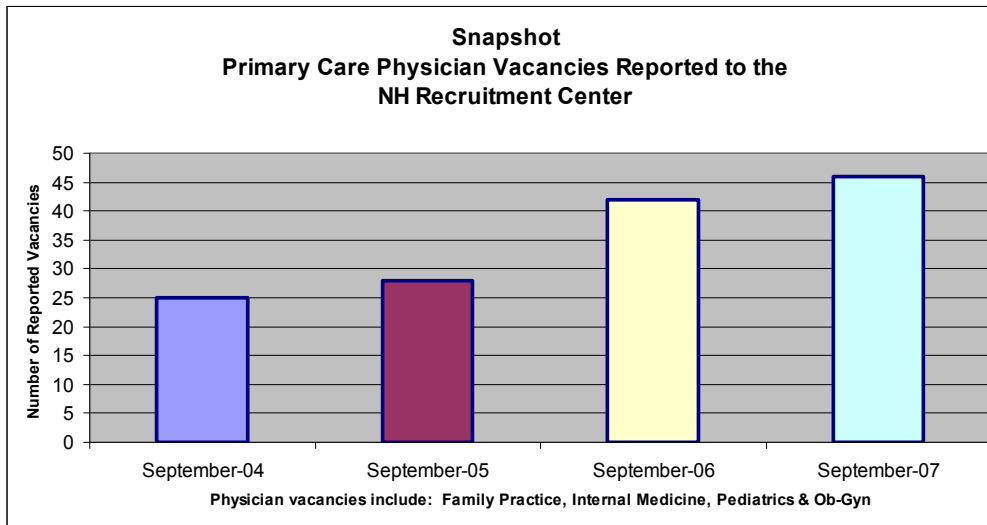
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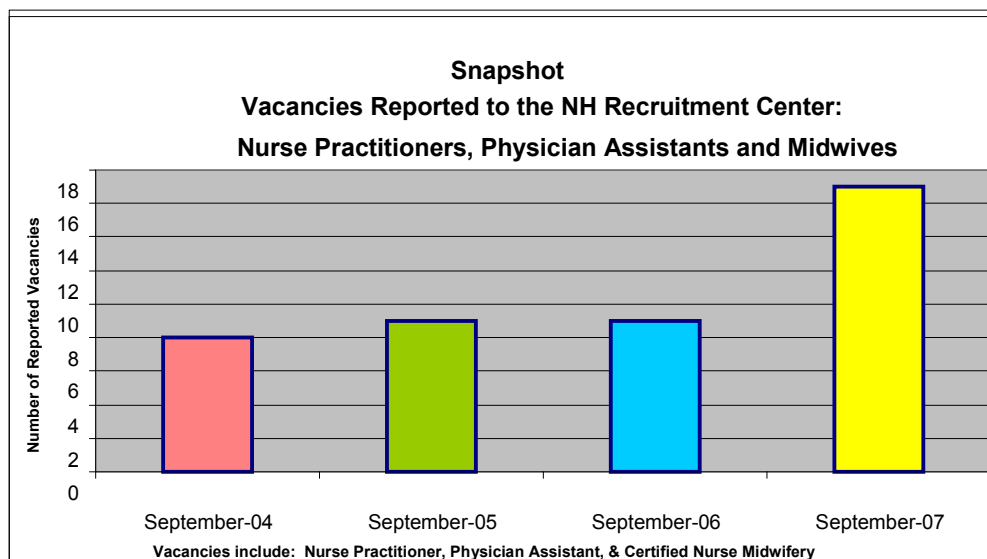
Appendix One

New Hampshire Primary Care Provider Vacancy Trend Data

Prepared by: NH Recruitment Center, A Service of Bi-State Primary Care Association



- Provider vacancies are reported to the NH Recruitment Center on a voluntary basis. The vacancies reported here represent positions in community health centers, hospitals and private practices across the state. The grid does not represent vacancies with larger health systems for example, Dartmouth Hitchcock Clinic or Elliot Hospital which maintain their own vacancy tracking systems.
- In today's nationally competitive recruitment market, physician vacancies, especially in rural and underserved areas, are remaining vacant for 18 months or longer. This has a direct impact on access to primary and preventive health care in many communities throughout the state.



- The increasing number of nurse practitioner and midwifery and physician assistant vacancies corresponds with the limited availability of primary care physicians as well as the challenges with filling physician vacancies in a timely fashion.

Appendix Two

Expert Presenters

Key Informant	Topic	Date
NH Citizens Health Initiative Quality of Care Committee	Key Issues for Primary Care Workforce in New Hampshire and Solutions to Address These Challenges: Survey Summary	Jan 18, 2007
Eric Turer	What Can We Learn About Workforce Issues Using Primary Care Service Area (PCSA) Data?	Feb 22, 2007
Don Kollisch	NH Health Professionals Loan Program: White Paper Overview	Feb 22, 2007
Alisa Butler-Druzba	The Role of the State Office of Rural Health and Primary Care Regarding Workforce Issues	Feb 22, 2007
Martha McLeod	The Role of AHEC and Primary Care Workforce Development	Feb 22, 2007
Stephanie Pagliuca	Oral Health Workforce Issues	Feb 22, 2007
Doris Lotz	Medicaid Workforce Issues	Feb 22, 2007
Stephanie Pagliuca	Oral Health and Primary Care Workforce Recruitment and Retention	March 16, 2007
Peter Janelle	Mental Health Workforce	April 05, 2007
Eric Turer	Overview Rural Data for Action: Report by the New England Rural Health RoundTable	April 05, 2007
Eric Turer	PCSA Statistics Overview	May 03, 2007
David Pendleton	Physician Assistant Workforce	June, 05, 2007
Tina Kenyon	Key Issues for Primary Care: Focus Group Summary of Dartmouth Family Practice Residents, Faculty and Medical Students	June, 05, 2007

Appendix Three

DEFINITION OF PRIMARY CARE, PRIMARY CARE PHYSICIAN AND PRIMARY CARE PRACTICE

The Workforce Committee Adapted the definition of primary care as proposed by the American Academy of Family Physicians.

These definitions of primary care, primary care practice, primary care physician, nurse practitioner, physician assistant, and all other *allied health professionals*, are adapted from documents developed by the American Academy of Family Physicians (AAFP) in 1994 and subsequently addressed in *The Future of Family Medicine Project in 2004*. This modified AAFP definition hopes to accomplish the following: (1) determine which attributes of health care are considered “primary”; (2) define how the delivery system delivers primary care to people; and (3) acknowledge that physicians, nurse practitioners, and physician assistants other than those who by specialty are primary care may incorporate aspects of primary care into their scopes of practice.

The following definitions relating to primary care should be taken together. They describe the care provided to the patient, the system of providing such care, the types of physicians whose role in the system is to provide primary care, and the role of other physicians, and non-physicians, in providing such care. Taken together, they form a framework within which patients will have access to efficient and effective primary care services of the highest quality.

Definition of Primary Care

Primary care is that care provided by primary care clinicians including physicians, nurse practitioners and physician assistants and their support staffs, specifically trained for and skilled in comprehensive first contact and continuing care for persons with any chronic and subacute conditions as well as any undiagnosed sign, symptom or health concern (the “undifferentiated” patient) not limited by problem origin (biological, behavioral or social), organ system, gender or diagnosis.

Primary care includes health promotion, disease prevention, health maintenance, counseling, patient education, diagnosis and treatment of acute and chronic illnesses in a variety of health care settings (e.g., office, inpatient, critical care, long-term care, home care, day care, etc.). Primary care is performed and managed by a physician, nurse practitioner or physician assistant, utilizing other health professionals, consultation and/or referral as Primary care provides patient advocacy in the health care system to accomplish cost effective care by coordination of health care services. Primary care promotes effective patient-professional communication and encourages the role of the patient as a partner in health care.

Definition of Ideal Primary Care Practice

A primary care practice serves as the patient’s first point of entry into the health care system and as the continuing focal point for all needed health care services. Primary care practices provide patients with ready access to their own personal physician, nurse practitioner, or physician assistant, or to an established back-up when the primary provider is not available.

Primary care practices provide health promotion, disease prevention, health maintenance, counseling, patient education, diagnosis and treatment of acute and chronic illnesses in a variety of health care settings (e.g., office, inpatient, critical care, long-term care, home care, day care, etc.).

“Characteristics of ideal primary care practices might include: a personal medical home; patient-centered care; a team approach; efforts to eliminate barriers to access; advanced information systems; redesigned offices; a whole-person orientation; care provided within a community context; emphasis on quality and safety; enhanced practice finance; and a commitment to provide a full “basket” of services” [from The Future of family Medicine Table 4].

Primary care practices are organized to meet the needs of patients with chronic, subacute and undifferentiated problems, with the vast majority of patient concerns and needs being cared for in the primary care practice itself. Primary care practices are generally located in the community of the patients, thereby facilitating access to health care while maintaining a wide variety of specialty and institutional consultative and referral relationships for specific care needs. The structure of the best primary care practices may include a team of physicians, nurse practitioners, physician assistants and other health professionals working in a collaborative manner.

Definition of Primary Care Physician and Allied Health Professionals

A primary care physician is a generalist physician who provides definitive care to the undifferentiated patient at the point of first contact and takes continuing responsibility for providing the patient's care. Such a physician must be specifically trained to provide primary care services.

Primary care physicians devote the majority of their practice to providing primary care services to a defined population of patients. The style of primary care practice is such that the personal primary care physician serves as the entry point for substantially all of the patient's medical and health care needs - not limited by problem origin, organ system, gender or diagnosis. Primary care physicians are advocates for the patient in coordinating the use of the entire health care system to benefit the patient.

Individuals who are not trained in the primary care specialties of family medicine, general internal medicine or general pediatrics may also provide patient care services within the domain of primary care. These may be physicians from nonprimary care specialties, or may also include specifically trained nurse practitioners, physician assistants or other health care providers. Such providers may focus on specific patient care needs related to prevention, health maintenance, acute care, chronic care or rehabilitation.

Key attributes of primary care providers include: a deep understanding of the dynamics of the whole person; a generative impact on patients' lives; a talent for humanizing the health care experience; a natural command of complexity; and a commitment to multidimensional accessibility [from The Future of Family Medicine Table 3].

Appendix Four

White Paper

NH Health Professions Loan Program

Donald Kollisch, MD

Statement of Need

The State of New Hampshire (N.H.) faces recurrent crises of having adequate numbers of physicians, nurse practitioners (NP) and physician assistants (PA) practicing in underserved, primarily rural areas. As in many rural states, access of patients to adequate health care can vary widely with the retirement or out-migration of providers, causing the remaining providers to operate in “crisis” mode, and challenging our ability to recruit new providers from outside of the state.

There are a limited number of in-state training programs that address the need of providing medical care in underserved areas of New Hampshire.

- The **Dartmouth Medical School (DMS)**—the only medical school in New Hampshire—is a private school with a mission of national scope, rather than specifically aimed at the state’s needs. Because of the high quality of the education and students’ exposure to the New Hampshire quality of life, there are always some DMS graduates who choose to return to New Hampshire to practice after they complete residency.
- The **N.H. Dartmouth Family Practice Residency in Concord** is the only residency program in the state which explicitly aims to train primary care providers for N.H. Since its first graduating class in 1997, approximately 50% of its graduates remain in state.
- The graduates of the **Dartmouth-Hitchcock Medical Center Residency Programs** (including the primary care fields of internal medicine, and pediatrics, as well surgery, obstetrics/gynecology, and a range of sub-specialty programs) come from all over the country, and the majority leave New Hampshire.
- In New Hampshire, there are two **Nurse Practitioner Programs** (at UNH and Rivier College), and one **Physician Assistant Program** (at the Massachusetts College of Pharmacy and Health Sciences—Manchester).

National and regional data provide reason to think that the challenge of educational debt is one of the key contributors to provider recruitment and retention.

- The debt burden assumed by medical students is usually quite large—often in the range of \$150,000–\$200,000—and can be a barrier to choosing a career in rural New Hampshire, where the income of physicians (especially in primary care fields) can be significantly below the national average.
- Many students do not know of the range of loan-repayment programs available in New Hampshire.
- The debts incurred by Nurse practitioners and PA’s are less, both because their course of study is shorter and because the tuition costs are less. Their debt loads are probably closer to the range of \$20,000–\$80,000; still significant compared to compensation.

There are some limited State and national funds which are currently being used for loan repayment. These funds are thought of as a tool to attract physicians and nurse practitioners—most of whom come from out-of-state—to N.H. to practice in underserved areas. Even with this program, run by the New Hampshire Recruitment Center most observers think and experience shows that we still have significant problems of both recruitment and retention. Various stakeholders—particularly N.H. hospitals—currently spend significant amounts of money to recruit providers to practice in underserved areas. In addition, some hospitals (and communities) provide loan repayment funds—in addition to direct and indirect recruiting costs—on an ad hoc basis. All of these funds, in sum, may not be providing the most effective leverage for the state and its provider communities.

In addition, stakeholders have identified some other statewide concerns related to education, physician distribution and access to care for underserved populations.

- N.H. residents who want to become physicians – and who are more likely to eventually practice in N.H. – have no public state medical school to attend, and are, therefore, at a competitive disadvantage. In previous legislative initiatives, this has been identified as an important citizens’ issue.
- Out-of-state providers recruited to practice in rural N.H. are more likely to leave the state than those who were raised in N.H. or had a significant life experience in N.H.
- Loan repayment may not be as strong an influence of choice of rural practice as other programs that pre-pay professional school tuition and obligate the student to rural practice.
- As compared to Vermont and Maine—which have better funded programs for state residents—fewer N.H. doctors were raised in N.H.
- The package of loan repayment available through the Recruitment Center—currently \$20,000 per year for two years—is significantly less than is offered by competing neighboring states. Current funding of the Loan Repayment program consists of limited state funds and diminishing federal funds.

Developing a Loan Program

The Endowment for Health and the NH Medical Society provided support for a series of three meetings in the fall/winter of 2006–7 which explored the financial barriers faced by N.H. residents who want to become physicians or nurse practitioners. The group recognized that similar financial barriers may be faced by any health professional, such as dental or mental health - who wants to practice in N.H. A total of 20 people participated in these meetings, representing a wide range of the stakeholders with an interest in these issues. [Appendix 1]

Experts were invited to attend as consultants, to help us understand the issues. These included:

- Ron Hiser, Director of Student Financial Services, Dartmouth College, to help us build a financial model.
- John LaCasse and Cathy Kimball from the Maine Access to Medical Education program, which features a Loan Forgiveness program and which also “buys” seats at three medical schools (Dartmouth, University of Vermont, and University of New England College of Osteopathic Medicine). That program is seen by health planners in Maine as being moderately successful in addressing some of their workforce issues.
- Andrew Welch from the Admissions Committee at the Dartmouth Medical School to help understand the application and admissions process.

Minutes and notes were circulated after each meeting, and participants provided feedback and suggestions via a web-based survey tool. Most of the discussion and data related to the issues of allopathic medical training and practice. Because of demonstrated need, we focused on Primary Care (family physician, internists, and Pediatricians) workforce; some specific sub-specialty needs—such as Child Psychiatry—were touched upon. Issues related to Nurse Practitioners and (less so) Physicians Assistants were also discussed, because of the significant impact on health care access, especially in Primary Care. The group also reflected on how similar analysis could be applied to dentists and mental health workers.

Staff from the Department of Community and Family Medicine at the Dartmouth Medical School provided research support to answer questions raised by the participants.

An Excel-based financial model was developed that would enable us to perform financial projections over 30 years, based on assumptions regarding a number of variables, including [Appendix 2]:

- Number and size of loan repayments offered
- Number and size of loans offered
- Loan terms, including rate, initiation and duration of pay-back
- Anticipated percentage of loan recipients meeting differing criteria for forgiveness (i.e. how many would choose to practice primary care in underserved N.H.)

How does a Loan Forgiveness Program work?

State residents apply to any medical school. After being accepted, they submit the standard Financial Aid application to their school. When the school determines their needs, the State Fund is available, along with other federal and private funds. In the Maine model, the recipient can receive up to \$25,000 each year. The loans accrue interest after graduation and are due after completion of residency. If the recipient meets certain criteria, then portions of the loans are forgiven. In Maine 12.5% of the loan is forgiven each year of practice if the recipient does their residency in Maine in a primary care specialty. They receive an additional 12.5% forgiveness each year if they practice in a state-designated underserved location in primary care. Lesser amounts of forgiveness are available for other state priorities, such as practice in a non-primary care field (e.g. surgery or psychiatry) in an underserved region.

National Data

The American Association of Medical Colleges has an extensive data base about applicants and matriculants to US medical schools. We used this data base to compare N.H. profiles with those of neighboring states and national averages. Full tables are attached as Appendix 3; below are regional summaries.

Applicants and Matriculants at MD school, 2006

	Applicants	Matriculated in-state	Matriculated out-of-state	Not matriculated
New Hampshire	97	6 (6.2%) at Dartmouth	38 (39%) – see table below for medical school	53 (55%)
Vermont	87	36 (41%) at UVM	10 (11%)	41 (47%)
Maine	84	—	39 (46%)	45 (54%)
Northeast Region	8,220	2,134 (26%)	1,802 (22%)	4,284 (52%)
National	39,108	10,823 (28%)	6,547 (17%)	21,738 (56%)

Residents who applied to MD medical school over 12-year period 1995–2006

	1995	2006	Range
New Hampshire	94	97	67–97
Vermont	105	87	70–119
Maine	105	84	53–105
Northeast Region	10,911	8,220	6,945–10,993
National	48,586	39,108	33,625–46,965

Residents who enrolled in medical school over 12-year period 1995–2006

	1995	2006	Range
New Hampshire	34	44	23–45
Vermont	47	46	38–59
Maine	36	39	27–46
Northeast Region	3,900	3,936	3,744–3,973
National	16,252	17,370	16,164–17,370

Which medical schools did N.H. residents attend?

See Appendix 4 for complete tables.

Of the 44 matriculants in 2006

- 37 in the Northeast (6 Dartmouth, 4 Tufts, 3 Uniformed Services, the rest widely distributed)
- 4 in the Midwest
- 3 in the South
- 0 in the West

Major themes of the meetings.

1. Loan repayment programs vs. loan forgiveness programs

- Repayment programs – including the one currently in place and administered by the Recruitment Center – have a number of advantages. They are conceptually simple, and administration is straight-forward. Their results can be immediate.
- The major disadvantage of loan repayment programs is that they generally do not favor state residents. It is possible that this could be introduced as a priority for use of N.H. funds.
- In order for Loan Repayment programs to be successful, they must be linked to practice opportunities, widely advertised, and vigorously promoted, especially to residents graduating from Primary Care residents.
- The major challenges faced by the current program relate directly to the inadequate funding.
- Loan forgiveness programs, such as the Maine program, have the potential to have a significant impact on encouraging young N.H. residents to “shoot high” and apply to medical school. Although this is perceived in Maine to function as planned, national data does not confirm this.
- Because N.H. has limited primary care residency positions (Internal Medicine and Pediatrics at Dartmouth-Hitchcock and Family Medicine at the Concord Hospital), that feature of the Maine program could not be readily emulated.

2. The absence of a medical school in New Hampshire

The state of N.H. currently pays the Dartmouth Medical School \$100,000 each year. In return, New Hampshire residency is considered a ‘plus factor’ in the DMS admissions process. DMS is committed to enrolling a minimum of five New Hampshire residents each year and often has more enrolled. In the last five years DMS has averaged about seven New Hampshire students. This money – the equivalent of \$5,000/student – is not part of the student’s loan package, but is part of the DMS operating budget.

- There is, intermittently, pressure on the legislature to address this issue, both from the perspective of examining the relationship between the state and DMS, and the perspective of the state addressing the learning needs of the citizens.
- The state of N.H. could, if adequate funds were available, negotiate to “buy” more seats at a number of medical schools in the region, as Maine does. It would be possible to negotiate some additional admissions criteria for these seats that would favor applicants with a higher likelihood of meeting the workforce needs of the state.

3. What type of primary providers would best meet the state’s needs? Do we need more doctors in underserved areas, or are NPs and PAs better suited because of aptitude and availability.

Although this was clearly an important issue - and one with significant implications for financial planning – we did not collect data that would permit an informed discussion.

4. Governance of an enhanced N.H. Health Professions Loan Fund

- The current Loan Repayment Program is housed in the N.H. Recruitment Center, a program run by the Bi-State Primary Care Association and supported by the N.H. Office of Rural Health and Primary Care.

-
- An enhanced Loan Fund could remain in the Recruitment Center, or could be structured and governed within a number of public, quasi-public, and private entities, including the N.H. Higher Education Assistance Foundation, a private bank, UNH, or a new entity that is modeled after the Finance Authority of Maine or the N.H. Business Finance Authority. The choices we make will reflect both our mission, and the political and economic realities.
 - An advisory or governing board for the program would be an essential forum to maintain and refine the goals and objectives of the Fund, and would be responsible for securing adequate funding.

5. Funding

- There are a number of stakeholders with financial interests in effective recruiting of clinicians for New Hampshire and in structuring their employment to best retain them in practice. Primary among these are the legislature, the hospitals, employers, Federally-qualified health centers (FQHCs.), and the various charitable foundations with a mission to promote good health.
- A public-private plan which includes funding from all of these sources would be the most equitable and sustainable solution.
- The initial funding will likely need to be in the range of \$300,000–\$1,000,000, depending on the specific structure chosen. Annual needs will likely be in the range of \$300,000–\$500,000.
- A primary funder would likely be the State of N.H., and the legislation to support this will need to be developed.
- A structure to write grants will need to be built.
- Some of the stakeholders, such as hospitals and provider groups, will need to be “sold” on the cost-savings of up-front investment.

6. “Pipeline” issues

- Young people of New Hampshire—particularly in the rural North country, and also from low-income communities in the South—encounter many barriers, both individual and social, that serve as barriers to their successfully becoming physicians or other health professionals.
- These barriers are addressed by various initiatives in the state. For example, the Area Health Education (AHEC) system works with high school students. NHEAF and Dartmouth’s Rural Health Scholars Program work with college students. If an enhanced Loan fund is developed, then the pipeline programs to promote health careers need to be similarly enhanced, so that the Loans can be distributed appropriately.

Recommendations

1. **An enhanced loan fund should be established to provide support for New Hampshire residents who want to attend medical or other health professional schools.** This initial project—funded by the Endowment for Health and the NH Medical Society—has opened the door to broad consideration of the financial issues related to education which have an impact on health care workforce.
2. The structural/governance home for the Loan Fund needs to be determined.
3. The governing body of the fund needs to determine what proportion of funds should be apportioned for loan repayment, and which portion for forgivable loans; there is clearly benefit to both, and the two programs can be complementary.
4. The Fund needs to determine its scope. That is, whether it’s forgivable loan program will be for N.H. residents bound for medical school and NP school only; or if it will also be available for other professions, such as dental school or mental health training. Additionally, it needs to determine whether the loan repayment program should develop criteria to favor N.H. residents.
5. Funding streams need to be developed
6. Strong links to legislative initiatives need to be developed and nurtured.

Draft 2/3/07

Donald Kollisch, MD

Appendix Five

The New Hampshire AHEC program has provided this example of a Health Careers Pipeline Program

Expand the New Hampshire Health Careers Pipeline Program.

1. Promote and support health career aspirations at every level throughout the educational cycle.
 - A. Elementary School: *awakening interest in health careers*
 - i. Offer inquiry-based science activities in the classroom, at the discretion of teachers
 - ii. Engage students in interactive on-line science and health careers games
 - B. Middle School: *providing early experience, laying the curricular groundwork*
 - i. Facilitate basic job-shadowing
 - ii. Provide after-school science and health careers enrichment programs
 - iii. Provide advance information on both requirements and important electives in high school science
 - iv. Maintain on-line activities that build on games offered to elementary students
 - C. High School: *engaging students in active pursuit of their own career preparation*
 - i. Facilitate job shadowing, with structured assignments
 - ii. Offer advanced day and residential camps
 - iii. Maintain on-line presence for high school students vis-à-vis application preparation, financial aid information, specific careers
 - iv. Produce and distribute health careers catalog broadly
 - D. College/Health Professions Training: *keeping students on a trajectory toward health care*
 - i. Support the placement of health professions students at sites in rural and underserved communities for clinical training
 - a. Directory of sites and preceptors
 - b. Partial housing and/or travel stipends
 - ii. Support sites and preceptors in rural and underserved communities
 - a. Information resources
 - b. Teaching resources (workshops, guides, texts)
 - c. Materials
 - E. Practice: *retaining practicing health professionals in rural and underserved settings*
 - i. Provide continuing education and academic detailing (i.e. longer term, sequenced educational modules)
 - ii. Promote involvement in academically generated and other research opportunities
 - iii. Offer opportunities to serve as preceptors for the next generation of health professions students
2. Target efforts where they are most needed:
 - A. In rural and underserved communities
 - B. On economically and educationally disadvantaged young people
 - C. In support of health professions experiencing greatest shortages
3. Work with academic and community-based partners to leverage resources
 - A. Existing information and training technology
 - B. Academic institutions and faculty
 - C. Professional societies
 - D. Community agencies and programs

Support Needed

\$350,000 would provide seed money for the existing infrastructure to further shape this pipeline, build on or start-up activities in pilot communities, and maintain continuity of service.

