

Health Care Professions Loan Repayment Program

Concept Proposal

Submitted by
Pat Carr, Chief
Health Planning & Systems Development
Department of Health & Human Services
State of Alaska

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via
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to
Alaska Primary Care Council

Health Care Professions Loan Repayment Program

Summary

Problem

Alaska is competing with other states and nations for the finite pool of available healthcare professionals. This competition will only intensify since the growth of supply is continuing to fall behind that of demand.

A common state-level response to these pressures is the use of financial inducements, collectively known as support-for-service programs (SFSP's). Good outcomes have been achieved with these. There are five types: scholarships, service-option loans, loan repayment, direct financial incentives, and residency support programs. All SFSP's have the same public goal: To improve healthcare staffing in shortage areas. National studies have determined loan repayment programs to be one of the most effective of the several support-for-service strategies - in terms of both recruitment and retention (see: *HCPLRP: Issue Paper*, 2007)

A key problem is that Alaska does not have a robust support-for-service program while most other states do, many have several, and further, some of those are growing. In sum, Alaska is at a substantive disadvantage as it necessarily competes in the national healthcare labor market.

Discussion

Alaskan health care provider agencies use many approaches to recruit and retain staff. This has proved difficult, however, and particularly so where (1) federal loan repayment programs do not apply, or, (2) there is insufficient resource available to meet need. More tools are needed to confront the problem of steadily growing vacancies in the Alaskan healthcare workforce.

Most all other states have state-sponsored programs that influence health professionals' geographic and specialty distributions. Programs that integrate a number of strategies for attracting and retaining health professionals have had a greater likelihood of success than have programs which rely on a single strategy. Substantial evidence indicates that state-level support-for-service programs typically are a fundamental part of those strategies.

Support-for-Service Programs

It is well-established that many healthcare professionals carry a heavy debt-burden as they come out of training and are attracted to serving in those locations where a share of that burden can be taken away. For instance, in 2004, young physicians' educational debt averages stood at over \$109,000 and this cost was increasing at the rate of more than \$4,000 per annum.

There are several types of support-for-service programs. One of the two most common types of such programs is the service-requiring scholarship program. These pay tuition and other costs for healthcare students while obligating them to a period of service that begins when they complete residency (or similar post-graduate training) years later. The other common program type is loan repayment. Loan repayment programs recruit healthcare practitioners as they complete their training and are ready to begin service in exchange for paying off the traditional education loans

they acquired years earlier. Programs of both types typically require one year of service for each year of training cost support they provide.

Considerable precedent exists for state-level offices to sponsor and manage financial support and inducement programs to thus encourage the within-state service of healthcare personnel. Overall, 81 state-level programs were identified. There were 44 states with at least one program (88% of states). Fully 21 states had two or more programs (47%), with highs found in New Mexico (at 5) and Minnesota (at 7). On average, the 44 states had nearly two programs (1.8) each.

Loan Repayment Programs

In national studies, loan repayment has been found to be a successful strategy to recruit and retain health care professionals. Twenty-five years of program evaluations have clarified many of the outcomes possible from healthcare training support-for-service programs. Furthermore, studies have demonstrated that loan repayment programs, as a whole, have better outcomes than scholarship programs. Studies have shown that there are several benefits which can accrue from loan repayment programs. Selected examples include: (a) high position-fill rates, (b) high service-completion rates, and (c) high retention rates.

These programs are successful because the benefit of loan repayment is clear to potential applicants, and programs typically only provide payments to participants after they complete each 3 or 6 months of work; therefore, if a participant leaves or otherwise fails to work in the agreed upon area or practice, payments simply stop and there is no need to enforce penalties.

In 2006, the Alaska Physician Supply Task Force recommended a number of specific strategies and action steps to assuring an adequate supply of physicians to meet Alaska's need. One of the PSTF findings was that loan repayment is a proven strategy for recruiting physicians, and the federal loan repayment programs currently available to Alaska physicians need to be stabilized financially and supplemented with Alaska-based programs.

Conclusion

Reported increasing vacancy rates, increasing costs of recruitment [SORRAS report], and comparisons with national norms [PSTF report] suggest that Alaska currently experiences a shortage of healthcare professionals, and, that shortages exist in several key occupational categories. Loan repayment programs have demonstrated substantial and longstanding success as a public strategy which has helped to rectify such shortages.

Recommendation

It is recommended that Alaska create a "Health Care Professions Loan Repayment Program".

To do this, a planning process should be established. This process should define and prepare for adoption at least the following program elements: (a.) organizational support, (b.) oversight, (c.) fiduciary agent, (d.) practitioner eligibility, (e.) site eligibility, (f) repayment details, (g.) program design & management, and (g) program evaluation.

Resource

Health Care Professions Loan Repayment Program: Issue Paper (2007). Health Planning & Systems Development, Alaska Department of Health & Social Services.

Health Care Professions Loan Repayment Program Issue Paper

Abstract

This paper: (1.) illustrates the current and expected healthcare workforce needs of Alaska; (2.) indicates the widespread use elsewhere of support-for-service programs, and in particular loan repayment; and (3.) recommends that Alaskans should now explore creation of a Health Care Professions Loan Repayment Program (HCPLRP).

Main Issue

Alaska is increasingly vulnerable to the competitive challenges posed by other states and nations for the finite pool of available healthcare graduates. This vulnerability will increase during coming years because of two factors. (1.) The need for health care professionals in Alaska is steadily rising, and, shortages are now evident in some categories. (2.) Further, these trends are national. These workers are part of, and often respond to, nationwide labor markets. Further, these trends are expected to accelerate. This is particularly true in those states that do not produce adequate numbers of their own health workers in the given disciplines. This puts such states at a marked disadvantage. Financial incentive programs are particularly important for those states, and Alaska is one of these. As a result, several other states have become robust competitors in recruitment of the healthcare workforce, and some are planning new and expanded loan repayment programs (Pathman, 2007).

A fundamental, and common, state-level response to these pressures is the use of financial inducements, these collectively known as support-for-service programs (SFSP's). Excellent outcomes are readily achievable from these efforts. There are five types: scholarships, service-option loans, loan repayment, direct financial incentives, and resident support programs. All support-for-service programs have the same key public goal: To improve healthcare staffing in shortage area communities.

National studies have determined loan repayment programs to be one of the most effective of the several support-for-service strategies - in terms of both recruitment and retention. As compared to the other SFSP options, here loan repayment participants sign support-for-service contracts after they complete their training, when they are older and better informed as to their career options. These professionals make commitments at the time they are ready to begin their service-obligations. They are more likely to know their own needs and those of their families at this later juncture. They know where they will serve and have a sense as to how well their chosen worksites will "fit" their needs.

Problem

This section presents evidence which indicates that:

- A healthcare workforce shortage currently exists in several occupations.
- Under current conditions these shortages will continue into the foreseeable future.
- In several occupations, these shortages will escalate.

Trends in National Workforce

Numerous, prominent sources indicate that there is a growing national shortage in the rural health care workforce. Two examples follow.

GAO Position (2001): In 2001, the General Accounting Office's (GAO's) director of health care-public health issues testified before Congress regarding growing concerns about the adequacy of the health care work force and lessons learned from the experience of the National Health Service Corps (NHSC) in addressing the maldistribution of health care professionals (Heinrich, 2001). Selected key points were:

- Recruitment and retention of adequate numbers of qualified health care workers are major concerns for many health care providers today.
- Available evidence suggests emerging shortages in some fields (e.g. nurses).
- Vacancy rates for HC workers in rural areas and inner cities are especially high.
- Although demand for most health workers will continue to grow, the increasing age of Americans, and their workforce may limit supply.
- The National Health Services Corp (NHSC) illustrates the challenges in addressing shortages of health professionals in certain locations.
- Better placement coordination with waivers for J-1 visa physicians is needed.
- Loan repayment is a better approach than service-requiring scholarships, to which individuals commit when they are still students.

NOSORH Position (2006): A representative and recent understanding can be gained from the National Organization of State Offices of Rural Health (NOSORH). In September 2006 NOSORH issued a Statement of National Priorities. Presented below are selected summaries of that document, without further comment. Interested readers should see:
http://www.nosorh.org/pdf/Rural_Impact_Study_States_IT.pdf

- While most rural communities in the U.S. already experience health care workforce shortages, the demand for health care workers nationwide is projected to grow faster than the supply. This shortage of health care workers can impact health care in a variety of ways, including: decreasing quality of care, decreasing access to care, increasing stress in the workplace, increasing medical errors, increasing workforce turnover/decreasing retention rates, and increasing health care costs.
- Most rural areas ... are classified by the federal government as Health Professional Shortage Areas (HPSAs) for primary medical care. A HPSA designation is made using a formula that includes a ratio of physician to population that is greater than 1:3,500. A population is considered "adequately served" when the ratio is 1:2,000. In 1997, more than 2,200 additional physicians would have been needed in non-metropolitan areas to eliminate HPSA designations. SORH directors consider the workforce shortage to be one of the greatest issues facing rural health, in particular shortages related to physicians and nurses.

- Certain national health workforce trends that will have a profound impact on rural populations and exacerbate the current rural health workforce shortages. Examples follow:
 - If health care consumption patterns and physician productivity remain constant over time, the aging population will increase the demand for physicians per thousand population from 2.8 in 2000 to 3.1 in 2020. Demand for fulltime-equivalent RNs per thousand population would increase from 7 to 7.5 during this same period.
 - Minority and female physicians have a greater propensity than do non-minority and male physicians to practice in urban communities. Meanwhile the percentage of physicians that are minorities and women is increasing.
 - The Bureau of Health Professions projects that there will be a 33-44% increase in demand for physicians, 41 percent for RNs, and 46 percent for LPNs from 2000 to 2020.
 - According to the Bureau of Health Professions, there is an acute shortage of pharmacists in the U.S. In February 1998, there were 2,670 unfilled full and part-time positions in the U.S. as compared to 6,920 in February 2000. Adding to this, enrollment rates in U.S. schools of pharmacy declined during this period.
 - In 1970, women accounted for 13 percent of the nation's pharmacists as compared to 2000 when they were 46 percent of the nation's pharmacists. Women tend to elect part-time work as pharmacists.
 - From 1990 to 1999, there was a 46 percent increase in the number of prescriptions dispensed from hospitals.
- NOSORH concluded the following in its 2006 statement of national priorities: ...SORH directors around the U.S. determined that they are most concerned with issues related to rural health workforce, health care services, and the needs of special populations. Research suggests that this concern is warranted as: demand for health care workers is increasing while the supply is decreasing; rural health care facilities continue to be fragile, there are gaps in these services, and all of these rural health services are critical to the health and well-being of the U.S.; and the needs of rural populations are changing, however, the programs serving them are unable to meet their needs. While SORHs respond to a variety of rural health needs and issues, new health care policies and additional rural health programs and funding will be needed if states are to address these increasingly important rural health issues and concerns.

Growth in Alaskan Jobs

Healthcare Workforce Overall: In 2004 there were 301,300 jobs in Alaska, with 32,700 (10.9 percent) of these in health care and social assistance (HCSA). By 2014, the overall job count is projected to be 349,550, with the HCSA workforce at 43,650 (12.5 percent). Thus by 2014, the number of HCSA jobs is projected to grow by 10,950 (34 percent), accounting for 22.7 percent of overall statewide job growth for the period. By 2014, health care and social assistance is projected to be the largest single industry workforce category in Alaska with 43,650 workers. (AHCDB, 2007, Table 3.300).

Social Service Occupations: For 2004, employment in community & social service (CSS) occupations was estimated to be 6,025 jobs. By 2014, this category of jobs is forecasted to be at 7,487, a rise of 1,462 (24 percent). The highest projected growth rates from 2000-2014 are projected to include mental health & substance abuse social workers (36.2 percent), social & human service assistants (34.6 percent) and mental health counselors (32 percent). (AHCDB, 2007, Table 3.310).

Selected Occupations: Review of 42 particular healthcare occupations indicates that these held 14,083 jobs in 2000, and that these are forecasted to reach 25,009 by 2010, an overall rise of 10,926 jobs (78 percent). Registered nursing positions are expected to grow the most, from 4,439 in 2000 to 8,556 in 2010, a gain of 4,117 jobs or (93 percent). All but one of the examined occupations is expected to have more jobs available by 2010. Further, of the 42 occupations presented, employment in 8 of these will more than double (e.g. AHCDB, 2007, Table 3.330).

Shortage in Alaskan Workforce

Health Professional Shortage Areas: Alaska has a large number of federally designated “Health Professional Shortage Areas” (HPSAs), the point of these designations being to aid in health care planning and finance. Typically these are determined by the existence of: (1.) a relative lack of desired personnel, and (2.) the existence of particular socio-economic conditions. A second route to HPSA designation, which is automatic, is via the existence of a federally funded community health center (CHC). HPSAs are of three types. Statewide in 2007 the following HPSAs existed: 28 in Primary Care (with 16 scored, and 12 via CHCs), 27 in Mental Health (with 14 scored, and 13 via CHCs), and 24 in Dental Health (with 7 scored, & 17 via CHCs). (Alaska Health Care Databook, 2007, Table 3.360). However, an important caveat is that many observers feel that the federal HPSA designation process underestimates the extant need for more healthcare professionals (e.g. US GAO, 1995). Thus, these designations should be considered as a conservative method for establishing need for the healthcare workforce.

Medically Underserved Areas: Alaska also has numerous federally designated “Medically Underserved Areas” (MUA) and “Medically Underserved Populations” (MUP). These designations identify shortages of primary medical care, dental health or mental health providers. Designations may be either geographic (MUA, i.e. a county or service area), or demographic (MUP, i.e. low income, Medicaid-eligible populations, cultural and/or linguistic access barriers to primary medical care services). Each designation is assigned an Index of Medical Underservice (IMU) score, which is used to determine the eligibility of an area or population for MUA/MUP status. For 2007, there were 17 area designations and 11 population designations. (Alaska Health Care Databook, 2007, Table 3.350).

Resident Workers with Age: Two aspects of worker demographics further suggest the likelihood of a workforce shortage in the health care and social assistance (HCSA). The first of these regards “resident workers with age”. In 2005 total employment in all HCSA occupations stood at 28,356. Of resident workers in all HCSA occupations statewide, 40 percent were age 45 and older; 27 percent were age 50 and older. Of resident workers who were in health care practitioner occupations per se, 47 percent were age 45 and older; and 31 percent were age 50 and older. Therefore, succession planning will be of concern over the next two decades as today’s mature health care professionals retire (Alaska Health Care Databook, 2007, Table 3.320).

Non-Resident Workers: A second workforce demographic issue regards the sizeable number of “non-resident” workers. Overall, 10 percent of the workforce was non-residents in 2005, with a

high of (13 percent) among non-resident health care practitioner and technologist occupations. Expect additional pressure to build on the health care system if non-resident (itinerate) workers are not available to fill Alaska health care workforce gaps (e.g. AHCDB, 2007, Table 3.320).

Selected Occupations: Physicians

Physician Shortage – 1997: A decade ago Johnson and Norris (1997) conducted a comprehensive study to describe Alaska’s geographic distribution of generalist physicians relative to population. These investigators queried all 443 generalist care physicians (family, general, general internal medicine, and pediatric) or their offices as to their specialties, employers, populations served, hours spent per week offering direct patient care, and locations. The results indicated a 30% overall shortage of generalist physicians for the state, representing roughly 141 full-time-equivalent generalists relative to national practice patterns and trends of health maintenance organizations. Of 17 primary health care areas, including the Anchorage area, 15 showed a need for additional generalist physicians. Most areas had a 20 to 40% shortage.

Physician Shortage – 2004: In 2004, a survey by the American Medical Association showed that, nationally, there were 2.38 practicing physicians per 1,000 people. Alaska’s rate of practicing physicians was 2.05 per 1,000 people. Based on Alaska’s 2004 population estimate of 656,834 and the national average of 2.38 physicians per 1,000 people, Alaska should have had 1,565 practicing physicians to be on par with national averages. The actual number of physicians practicing in Alaska was 1,347, indicating a shortage of 14 percent or 218 physicians. In areas outside of Anchorage, the rate of physician deficiency was 16 percent. (Alaska Health Care Databook, 2007, Table 3.370).

Physician Shortage – 2006: In 2006, the AK DHSS and the University of Alaska jointly assembled the “Alaska Physician Supply Task Force” (PSTF). This group then conducted a large inter-agency study, issuing the authoritative report, “*Securing an Adequate Number of Physicians for Alaska’s Needs*”. It found that Alaska had a shortage of physicians. Although not at crisis levels, the shortage was affecting access to care throughout the state, and, increasing cost to hospitals and other health care organizations. Up to 16% of rural physician positions in Alaska were vacant in 2004. Patients with Medicare were having difficulty finding a primary care physician. Several important specialties were in serious shortage in Alaska. It concluded that:

- The shortage is very likely to worsen over the next 20 years as the state’s population increases and ages. Physician supply nationwide is entering a period of shortage, according to the best current predictions. Physicians in Alaska are aging and one-third may be retiring in the next 10-15 years. The new generation of physicians wants a more balanced life, meaning fewer hours on duty and more predictable schedules. These trends mean that more physicians will be required to serve the same population. Technology and scientific advances have increased the amount of medical care available, also adding to the need for physicians, as the patients expect more care than previously.
- As the supply of physicians shrinks, recruitment will become more competitive. Alaska’s traditional system of recruiting physicians from federal assignment in the military and Indian Health Service is much less effective with changes in these systems. Alaska is far behind the other states in production capacity. (1-2) Long-range planning, even if it includes a four-year medical school in Alaska, will not address current physician needs in a timely fashion, so interim measures are needed. (59)

Selected Occupations: Nurses

Nursing Shortage – 2003: The nursing shortage is particularly acute, both in Alaska and nationwide. It is estimated that during this decade the need for RN's will increase by 4,117 (in 2000: 4,439; in 2010: 8,556) (Fried, N. & Keith, B. (2003). National shortages will make recruitment yet more difficult. As a result, Alaska will have a great need to recruit and retain registered nurses. Addressing the need of rural and remote areas will be yet more difficult and expensive than to do so for urban areas.

Impact on CHC's

Rosenblatt, et al. (2006) examined the status of provider workforce shortages such as these may limit CHC expansion. They noted that the federal government has continued to expand the capacity of community health centers (CHCs) to provide care to underserved populations. The researchers therefore conducted a survey of all 846 federally funded US CHCs that directly provide clinical services and are within the 50 states and the District of Columbia (May-Sept, 2004). Questionnaires were completed by the chief executive officer of each grantee. Overall response rate was 79.3%. Information was supplemented by data from the 2003 Bureau of Primary Health Care Uniform Data System and weighted to be nationally representative.

Rosenblatt, et al (2006) found that primary care physicians made up 89.4% of physicians working in the CHCs, the majority of whom are family physicians. In rural CHCs, 46% of the direct clinical providers of care were non-physician clinicians compared with 38.9% in urban CHCs. There were 428 vacant funded full-time equivalents (FTEs) for family physicians and 376 vacant FTEs for registered nurses. There were vacancies for 13.3% of family physician positions, 20.8% of obstetrician/gynecologist positions, and 22.6% of psychiatrist positions. Rural CHCs had a higher proportion of vacancies and longer-term vacancies and reported greater difficulty filling positions compared with urban CHCs. Physician recruitment in CHCs was heavily dependent on National Health Service Corps scholarships, loan repayment programs, and international medical graduates with J-1 visa waivers. The study concluded that CHCs face substantial challenges in recruitment of clinical staff, particularly in rural areas. The largest numbers of unfilled positions were for family physicians at a time of declining interest in family medicine among graduating US medical students. They stated that success of the current US national policy to expand CHCs may be challenged by these workforce issues.

Strategy

It is essential to enhance the capacity of Alaskan health care provider agencies to recruit and retain staff where: (1.) federal loan repayment programs either do not apply, or, (2.) there are insufficient resources available to meet need. More tools are needed to confront the problem of steadily growing vacancies in the Alaskan healthcare workforce.

Most other states have programs that influence health professionals' geographic and specialty distributions. Programs that integrate a number of strategies for attracting and retaining health professionals have a greater likelihood of success than do programs which rely on a single strategy. Substantial evidence indicates that state-level support-for-service programs should be, and typically are, a fundamental part of those strategies.

Debt from Health Care Training

What follows are brief summaries of recent, representative studies which suggest that:

- Health care student debt affects subsequent practitioner career choices;
- Loan repayment options support recruitment goals; and
- These programs directly help to correct practitioner maldistributions.

Factors in Recruitment & Retention: Daniels, et al. (2007) sought to identify factors associated with rural recruitment and retention of graduates from a variety of health professional programs in the southwestern United States. They conducted a longitudinal study by mailing a survey to graduates from 12 health professional programs in New Mexico. The main outcomes examined were: (1.) first rural employment, and, (2.) aspects of any rural employment, since graduation. Daniels, et al. (2007) concluded that rural background and preference for smaller sized communities are associated with both recruitment and retention. In addition, however, they stated that loan forgiveness and rural training programs appear to support recruitment. Retention efforts must focus on financial incentives, professional opportunity, and desirability of rural locations

Medical Student Debt & Career Choice: Rosenblatt & Andrilla (2005) examined the notion that medical students' rising total educational debt is one of the factors that explains the recent decline in students' interest in family medicine and primary care. They analyzed the results from questions on the Association of American Medical Colleges' 2002 Medical School Graduation Questionnaire that focused on students' debt and career choices. Students reported that higher levels of debt influenced their future career choices. An inverse relationship was observed between the level of total educational debt and the intention to enter primary care, with the most marked effect noted for students owing more than \$150,000 at graduation.

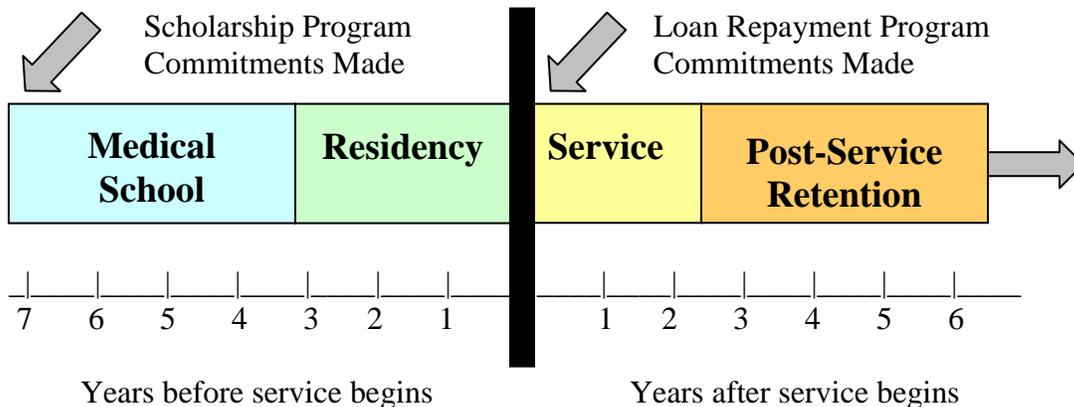
Medical Training Debt & Service Commitments: Pathman, et al (2000) assessed how student loan debt and scholarships, loan repayment and related programs with service requirements influence the incomes young physicians seek and attain, influence whether they choose to work in rural practice settings and affect the number of Medicaid-covered and uninsured patients they see. Data are from a 1999 mail survey of a national probability sample of 468 practicing family physicians, general internists and pediatricians who graduated from U.S. medical schools in 1988 and 1992. A majority of these generalist physicians recalled "moderate" or "great" concern for their financial situations before, during and after their training. Eighty percent financed all or part of their training with loans, and one-quarter received support from federal, state or community-sponsored scholarship, loan repayment and similar programs with service obligations. In their first job after residency, family physicians and pediatricians with greater debt reported caring for more patients insured under Medicaid and uninsured than did those with less debt. For no "specialty" was debt associated with physicians' income or likelihood of working in a rural area. Physicians serving commitments in exchange for training cost support, compared to those without obligations, were more likely to work in rural areas (33 vs. 7 percent, respectively, $p < 0.001$) and to provide care to more Medicaid-covered and uninsured patients (53 vs. 29 percent, $p < 0.001$), but did not differ in their incomes (\$99,600 vs. \$93,800, $p = 0.11$). Thus, among physicians who train as generalists, the high costs of medical education appear to promote, not harm, national physician work force goals by prompting participation in service-requiring financial support programs and perhaps through increasing student borrowing.

Support-for-Service Programs

It is well-established that a sizeable number of healthcare professionals carry a heavy debt-burden as they come out of training and are attracted to serving in those locations where a share of that burden can be taken away. For instance, training to become a physician is expensive, as 80 percent of medical students who graduate in debt will attest (e.g. Jolly, 2005). In 2004, young physicians' educational debt averages stood at over \$109,000 and was this cost was increasing at the rate of more than \$4,000 per annum (e.g. AAMC, 2004). Nonetheless, educational costs and students' fears of acquiring six-figure debts have created a market for government programs that link support for healthcare training costs to a period of obligated clinical work in shortage areas.

There are several types of financial "support-for-service programs" (SFSP's). These include: scholarships, service-option loans, loan repayment, direct financial incentives, and resident support programs. One of the two most common types of such programs is the service-requiring scholarship program. These pay tuition and other costs for healthcare students while obligating them to a period of service that begins when they complete residency (or similar post-graduate training) years later. The other common program type is loan repayment. Loan repayment programs recruit healthcare practitioners as they complete their training and are ready to begin service in exchange for paying off the traditional education loans they acquired years earlier. Programs of both types typically require one year of service for each year of training cost support they provide.

Figure 1 - Timeline of physicians' training years, signing of commitments with service-requiring scholarship and loan repayment programs, service periods (typically two-to-four years) and post service retention.



(After: Pathman, D.E. (2006). What Outcomes Should We Expect From Programs That Pay Physicians' Training Expenses in Exchange For Service? *NCMEDJ*, 67(1), pg. 77)

Support-for-service programs appear to be a natural solution to both the students' and the public's needs. They have grown in popularity over the past 25 years in tandem with rising tuition costs, with both federal and state agencies using them. In one well-known federal example, in 2005 the Bureau of Health Professions reported that the National Health Service Corps (NHSC) was providing an obligated physician workforce of about 1,700 scholars and loan re-payers. As a result of NHSC shifting most of its funding to loan repayment, more workers were immediately brought into the fold, and that census has now roughly doubled. In addition, most states also

sponsor their own support-for-service programs. In 1996 there were a total of 69 state programs with an estimated workforce of 1,300 practicing physicians. These state programs doubled in number from 1990 to 1996 and very likely have grown further since (Pathman, et al. 2000).

State Scholarship, Loan Forgiveness, and Related Programs: Pathman, Taylor, et al (2000) noted that in the mid-1980s, states expanded their initiatives of scholarships, loan repayment programs, and similar incentives to recruit primary care practitioners into underserved areas. These programs have since grown substantially during the ensuing two decades. The authors thus sought to identify and describe state programs that provide financial support to physicians and midlevel practitioners in exchange for a period of service in underserved areas, and to begin to assess the magnitude of the contributions of these programs to the US health care safety net. This cross-sectional, descriptive study established the number and types of state support-for-service programs in 1996; trends in program types and numbers since 1990; distribution of programs across states; numbers of participating physicians and other practitioners in 1996; numbers in state programs relative to federal programs; and basic features of the state programs.

The study found that in 1996 there were 82 eligible programs operating in 41 states, including 29 loan repayment programs, 29 scholarship programs, 11 loan programs, 8 direct financial incentive programs, and 5 resident support programs. Programs more than doubled in number between 1990 (n = 39) and 1996 (n = 82). In 1996, an estimated 1306 physicians and 370 midlevel practitioners were serving obligations to these state programs, a number comparable with those in federal programs. Common features of state programs were a mission to influence the distribution of the health care workforce within their states' borders, an emphasis on primary care, and reliance on annual state appropriations and other public funding mechanisms.

The authors concluded that as of 1996 the several states had fielded an obligated primary care workforce comparable in size to the better-known federal programs. Thus, these state programs constitute a major portion of the US health care safety net. The study emphasized that such state programs should be considered in plans to further improve health care access.

Experience of Other States

State-Level Support-for-Service Programs (2007): Considerable precedent exists for state-level offices to sponsor and manage financial support and inducement programs to thus encourage the within-state service of healthcare personnel. Tables 1, 2 & 3 here-present listings of those state-level support-for-service programs that were web-posted by the Association of American Medical Colleges (as of 8/10/07). These provide a selective look at state and federal loan repayment, forgiveness and scholarship programs available to allopathic medicine and other health professions students. This compilation is not exhaustive, and at present, our office is not aware of one that is. The here-derived tables shows that, overall, there were 81 programs. There were 44 listed states with at least one program (88% of US states). Fully, 21 of these states had two or more programs (47% of listing), with highs found in New Mexico (at 5) and Minnesota (at 7). On average, the 44 listed states had nearly 2 programs (1.8) each. Table 1 presents 43 listings that were designated as “state programs”. Table 2 presents another 20 listings that were designated as “federal/state programs”. Finally, Table 3 presents another 18 programs were not otherwise classified, though quick inspection of titles suggests that many can be readily classified. Those programs that were categorized as (strictly) “federal” (e.g. NIH, military) are not further considered. Click on any program title for more programmatic detail.

State-Level Offices: Service-for-Support Programs

Table 1: Designation as: "State Program"

<u>State</u>	<u>Program</u>
Arizona	<u>Arizona Medical Student Loan Program</u>
Arkansas	<u>Community Match Physician Recruitment Program</u>
Arkansas	<u>Physician Grant Recruitment and Retention Program</u>
Colorado	<u>Colorado Health Professions Loan Repayment Program</u>
Georgia	<u>State Medical Education Board of Georgia Scholarship Program</u>
Indiana	<u>Indiana Primary Care Scholarship Program (IPCSP)</u>
Iowa	<u>Osteopathic Physician Recruitment Program (O.P.R.P.)</u>
Kansas	<u>Kansas Bridging Plan</u>
Maine (2)	<u>Maine Health Professions Loan Program</u>
Maryland	<u>Loan Assistance Repayment Program for Primary Care Physicians</u>
Minnesota	<u>Minnesota Dentist Loan Forgiveness Program</u>
Minnesota	<u>Minnesota Nurse Loan Forgiveness Program</u>
Minnesota	<u>Minnesota Rural Mid-level Practitioner Loan Forgiveness Program</u>
Minnesota	<u>Minnesota Rural Physician Loan Forgiveness Program</u>
Minnesota	<u>Urban Physician Loan Forgiveness Program</u>
Mississippi (2)	<u>Family Medical Education Loan/Scholarship Program</u>
Mississippi	<u>State Medical Education Loan/Scholarship Program</u>
Missouri	<u>Primary Care Resource Initiative for Missouri (PRIMO)</u>
Montana (3)	<u>Montana Rural Physician Incentive Program (MRPIP)</u>
Montana	<u>WICHE Professional Student Exchange Program</u>
Montana	<u>WWAMI Medical Exchange Program</u>
Nebraska	<u>Nebraska Student Loan Program</u>
Nevada	<u>Nevada Health Service Corps</u>
New Mexico (5)	<u>Allied Health Loan-for-Service Program</u>
New Mexico	<u>New Mexico Health Professions Student Loan-for-Service Program</u>
New Mexico	<u>Nursing Loan-for-Service Program</u>
New Mexico	<u>Osteopathic Medical Student Loan for Service Program</u>
New York	<u>Regents Physician Loan Forgiveness Award Program</u>
North Carolina (4)	<u>Community Practitioner Program</u>
North Carolina	<u>NC Student Loan Program for Health, Science and Mathematics</u>
North Carolina	<u>North Carolina State Loan Repayment Program</u>
Ohio	<u>Ohio Physician Loan Repayment Program</u>

Table 1: "State Program" (continued)

Oklahoma (3)	Family Practice Resident Rural Scholarship Loan Program
Oklahoma	Oklahoma Rural Medical Education Scholarship Loan Program
Oklahoma	Oklahoma State Loan Repayment Program
Oregon	Oregon Rural Health Services (RHS) Loan Repayment Program
South Dakota	South Dakota Midlevel Tuition Reimbursement Program
Tennessee (2)	Health Access Incentive Program: Incentive Grant: Mid-Levels
Tennessee	Health Access Incentive Program: Incentive Grant: Physicians
Virginia	Virginia Loan Repayment Program
Washington (2)	WA State Health Professional Loan Repayment Program
West Virginia	Medical Student Loan Program
Wyoming	Wyoming WWAMI Medical Education Program

State-Level Offices: Service-for-Support Programs

Table 2: Designations as: "Federal/State Program"

Connecticut	Connecticut State Loan Repayment Program
Delaware	Delaware State Loan Repayment Program
Illinois	Illinois/National Health Service Corps Loan Repayment Program
Iowa (2)	Iowa PRIMECARRE Loan Repayment Program
Louisiana	Louisiana State Loan Repayment Program
Maine	Maine State Loan Repayment Program
Massachusetts	Massachusetts State Loan Repayment Program
Minnesota	Minnesota State Loan Repayment Program
Missouri (2)	Physician Loan Repayment
New Hampshire	NH Primary Loan Care Repayment Provider Plans
New Jersey	Primary Care Loan Redemption Program of New Jersey
New Mexico	Health Professional Loan Repayment Program (HPLPP)
Ohio	NHSC / BHP Ohio Loan Repayment Program
Pennsylvania	Pennsylvania's Primary Health Care Practitioners Loan Repayment Program
Texas	Physician Education Loan Repayment Program of Texas
Utah	Utah Health Care Workforce Financial Assistance Program
Virginia (2)	National Health Service Corp-VA Loan Repayment Program
Washington	WA State Health Professional Scholarship Program
Wisconsin (2)	Wisconsin Health Professions Loan Assistance Program
Wisconsin	Wisconsin Physician Loan Assistance Program

(number in parentheses indicates total state-office programs for that state that are not "federal" per se)

State-Level Offices: Service-for-Support Programs

Table 3: Programs – “Not Otherwise Designated”

Arizona (3)	Arizona Loan Repayment Program
Arizona	NHSC/Arizona Department of Health Services
Arkansas (3)	Arkansas Rural Medical Practice Student Loan/Scholarship Program (ARMPSLSP)
California (2)	Dr. James L. Hutchinson & Evelyn Ribbs Hutchinson Medical School Scholarship
California	NHSC/CA State Loan Repayment Program
Georgia (2)	Georgia Physician Loan Repayment Program
Kentucky	Rural Kentucky Medical Scholarship Fund (RKMSF) Grant Program
Michigan	Michigan Essential Health Provider Program/SLRP
Minnesota (7)	Federal National Health Service Corps (NHSC) Loan Repayment Program
Nebraska (2)	Nebraska Loan Repayment Program
North Carolina	Loan Repayment Program
North Dakota (2)	The Medical Personnel Loan Repayment Program
North Dakota	The State Community Matching Physician Loan Repayment Program
Rhode Island	Rhode Island Health Professional Loan Repayment Program
South Dakota (3)	NHSC/Loan Repayment and Scholarship Program
South Dakota	South Dakota Physician Tuition Reimbursement Program
Vermont (2)	Freeman Educational Loan Repayment for Physicians Program
Vermont	Vermont State Loan Repayment Program

(number in parentheses indicates total state-office programs for that state that are not “federal” per se)

Loan Repayment Programs

In national studies, loan repayment has been found to be a successful strategy to recruit and retain physicians and nurses. Twenty-five years of program evaluations have clarified many of the outcomes possible from healthcare training support-for-service programs. Furthermore, studies have demonstrated that loan repayment programs, as a whole, have better outcomes than scholarship programs. Results of these comparisons have proved compelling. For example, studies demonstrating the strengths of loan repayment programs prompted Congress recently to allow the NHSC to make more loan repayment and fewer scholarship awards (e.g. Bureau of Health Professions, 2005) and led some states to expand their loan repayment programs (Pathman, et al. 2000).

Studies have shown that there are several benefits which can accrue from loan repayment programs. Selected examples follow:

High Position Fill-Rates: Some programs, including the NHSC, have many more applicants than their funds can support and regularly fill all funded positions; other programs have many unfilled positions for lack of applicants.

High Service Completion Rates: Very few loan repayment programs, accordingly, have found a need to set any buy-out penalties; as a group, their service completion rates average 93% without them (Pathman, et al, 2004). It is the physician-program-community fit and the financial attractiveness of the program that prompts physicians to complete their obligations with service (the “carrot”), not financial and legal threats (the “stick”).

High Retention Rates: Beyond merely completing obligations with service, there has long been the hope that obligated physicians will remain in their service communities for years afterwards ... In fact, data show that physicians participating in state-run support-for-service programs remain in their service sites as long on average as other young physicians remain in practices of all types nationwide. Physicians obligated to state-run loan repayment programs remain substantially *longer* than other young physicians (e.g. Pathman, 2004).

Effectiveness of Support-for-Service: Sempowski, I.P. (2004) attempted to evaluate the effectiveness of programs that provide financial incentives to physicians in exchange for a rural or underserved area return-of-service (ROS) commitment. This was done via a systematic literature review using Medline and Ovid HealthSTAR databases were searched from 1966 to 2002. The initial search yielded 516 results. Bibliography review yielded additional references. Ten publications were selected as the highest level of evidence available. The main outcome measures were: (a.) initial recruitment of physicians, (b.) buyout rates, and (c.) long-term retention.

The majority of studies reported effective recruitment despite high buyout rates in some US-based programs. The one prospective cohort study on retention showed that physicians who chose voluntarily to go to a rural area were far more likely to stay long term than those who located there as an ROS commitment. Multidimensional programs appeared to be more successful than those relying on financial incentives alone. Sempowski, I.P. (2004) concluded that ROS programs to rural and underserved areas have achieved their primary goal of short-term recruitment but have had less success with long-term retention. However, this study combined different types of support-for-service programs within its analysis thus somewhat preventing conclusions as to loan repayment programs, per se.

Loan Repayment vs. Payback Programs: Miller & Crittenden (2001) sought to determine and contrast the possible impact that two different types of support-for-service programs might have on medical school choice, and, students' intentions to return to their home states. The authors examined difference in preferences for: (a.) payback programs regarding state-subsidized medical education which are designed to increase the rate of graduates returning to those states to practice; and (b.) loan repayment programs that are designed to entice medical school graduates from rural states to return to their home states.

Miller & Crittenden (2001) surveyed 229 medical students (response rate 80 percent). The questionnaire collected background information on the students and addressed the possible

impact of payback and loan repayment policy proposals on student plans. Forty-seven percent of students reported that they would attend a different medical school if a required payback program were in place. Students who were more competitive at the time of admission to medical school were significantly more likely to say they would attend another medical school than were less competitive students. In contrast, 48 percent of students reported that they would be more likely to return to their home states if expanded loan repayment programs were available for service in areas of need. The findings suggest that payback programs may dissuade more competitive students from entering medical schools with such requirements, compromising the pool of students most likely to return to rural areas. Conversely, medical students appear willing to consider loan repayment programs upon completion of their training.

Why Do Loan Repayment Programs Work? Expert opinion was sought for insights into why loan repayment programs work. Donald Pathman, MD, MPH, (Univ. of North Carolina) was queried as to his view. Dr. Pathman stated:

“As a whole, state-run (loan repayment) programs are successful but not because they are run well---- most are under-funded, under-staffed and can't offer individualized assistance to the health care practitioners they support. They are successful because the benefit of loan repayment is clear to potential applicants and programs typically only provide payments to participants after they complete each 3 or 6 months of work; therefore, if a participant leaves or otherwise fails to work in the agreed upon area or practice, payments simply stop and there is no need to enforce penalties.” (Pathman, 2007)

Does a Loan Repayment Program Make Sense for Alaska? Expert opinion was sought for perceptions as to whether a loan repayment program makes sense for Alaska. Again, Donald Pathman, MD, MPH, (Univ. of North Carolina) was queried as to his view. Dr. Pathman stated:

“I am glad to hear that Alaska is thinking of expanding loan repayment opportunities. I visited Alaska for the first time this past spring for the National Rural Health Association meeting, in Anchorage, with a side trip to Minto and Fairbanks. What an amazing place! I spoke with several folks working with the Native American health corporation in the state, and realize the physician shortages for the populations they serve. I was impressed that they knew little about how to attract and keep a physician. Lots of opportunities there for improvement in programs.” (Pathman, personal communication, 2007)

Position of the Alaska Physician Supply Task Force (2006): The PSRF recommended a number of specific strategies and action steps to achieve four main goals related to assuring an adequate supply of physicians to meet Alaska's need. One of the PSRF findings was that Alaska's clinics and hospitals receive inquiries from physicians about the availability of loan forgiveness often. Loan repayment is a proven strategy for recruiting physicians, and the federal loan repayment programs currently available to Alaska physicians need to be stabilized financially and supplemented with Alaska-based programs. For detail, see: “*Securing an Adequate Number of Physicians for Alaska's Need*” (2006).

Precedents in Alaska: There are, and have been, other circumspect loan repayment programs for health professionals here in Alaska. These have typically been via categorical federal funding. Examples include Indian Health Service supports, and use of the National Health Service Corp. There have also been selected opportunities via the regional health corporations, and certain hospitals. Further, the Alaska Mental Health Trust has recently considered some loan repayment supports in the behavioral health field. While promising, these will collectively still fall far short of garnering the needed workforce to face projected need.

Recommendation

Recommended: Alaska should establish a Health Care Professionals Loan Repayment Program (HCPLRP). Decisions as to particular program elements must await further public process. Questions should be addressed regarding at least the following program elements:

- *Organizational Support:* What are the best ways to build legislative and public understanding and support on this issue? For instance, members of the Alaska Physician Supply Task Force supported a loan payback provision for physicians.
- *Oversight:* What is that governance entity most suited to provide leadership and oversight of this program? Similarly, which entity is most suited to administer the program? There is evidence that no single entity has the expertise to properly oversee and administer such a program. This might argue for a blended or interagency oversight structure. One agency might provide programmatic administration, while the other might serve as fiduciary agent.
- *Fiduciary Agent:* It may prove both workable and preferred that fiduciary mechanics and other administrative aspects be organizationally separated. If so, which agency is most to assume this fiduciary role? One approach might be to have the program work in tandem with the Alaska Commission on Postsecondary Education (ACPE). It is possible that the functions of the Alaska Commission on Postsecondary Education could be amended as these relate to repayment provisions healthcare degree program participants. It appears likely that no substantive change would be necessary for ACPE to act strictly as fiscal agent for participant payments. Further, this would not be a recommendation to change the scope of the ACPE mission to include direct workforce development. This later function would likely be accomplished by another state agency via interagency partnership.
- *Provider Eligibility:* Which healthcare occupations are to be deemed as eligible for the HCPLRP? Are all eligible occupations to benefit equally from the HCPLRP, or, will the occupations differ in terms of: (a.) maximum financial benefit, (b.) length of service required, (c.) specificity of service location, and, (d.) penalty for early-quit? There is evidence that for a loan repayment program, marked penalties are not needed, and, are actually likely harm outcomes.
- *Repayment Details:* Several policy and procedural decisions must be concluded. Examples follow. What is an adequate period of service-payback? What is the proportionality of payback when scheduled over years? What are the most useful policies with which to govern service payoff?
- *Work Processes:* Several work-process details will need to be established as regards management client relationships. Programmatically, what ways do we want to work, one-on-one, with program applicants to help them find suitable communities/positions? What types of assistance do we most want to provide to applicants, practices and communities?
- *Program Evaluation:* An ongoing evaluation should be installed and maintained as an expected part of any proposed support-for-service program (e.g. Henderson & Fox-Grage, 1997). It is in everyone's interest, and particularly in those of Alaska's medically underserved communities, that such programs: (a.) have explicit outcome objectives, (b.)

are regularly monitor as to those outcomes, (c.) openly acknowledge weaknesses, and (d.) embrace change as needed. Many different types of outcomes might be monitored. Reasonable measures might include:

- Practice in specific needy communities (e.g. HPSAs)
- Serve high-priority patient groups (e.g. Medicaid)
- Service completion of participants
- Retention rate of participants
- Satisfaction of participants
- Indicators as to the content of practice/work of program participants (e.g., proportion that provide inpatient care, that provide obstetrical care, or whatever specific services are deemed to have critical workforce shortages)

Other Support-For-Service Options to Consider:

As robust as a state-level loan repayment is likely to prove, there are other programmatic strategies. At least two other strategies should also be thoroughly examined: (a.) service-option loans, and (b.) direct incentives.

- Strategy: Service-Option Loan Programs

Consider provision of educational loans to all citizens of Alaska who undertake health professions training, where the loans will be forgiven if they work within Alaska after graduation. This would provide added incentive for health care students who were raised in Alaska to return to Alaska to practice, rather than being wooed away by the states/communities where they receive their training. There is evidence that these have worked well elsewhere, given attention to key programmatic details. For Alaska, a service-option loan program should nicely complement a loan repayment program; because the former would address only Alaska residents and the latter would primarily attract those health practitioners coming from out-of-state.

- Strategy: Direct Incentive Programs

Consider provision of direct incentive programs. In these, funding is provided to practitioners who agree to work in needy settings whether or not they have educational loans to be repaid. There is no reason to believe that only young practitioners-with-debt are suited to work in rural areas and/or with underserved populations.

Loan repayment programs only target recent graduates who have weighty educational debts. For instance, as regards physicians, many recent graduates carry minimal debt (perhaps 40%). Further, a large portion of those physicians who are potentially recruitable to Alaska are 10 or 20 years out of training and have no educational debts. It is possible, even likely, that "an Alaskan adventure" would appeal to some number of mid and late-career physicians. It may prove informative to assess the State's medical licensure files to learn the average/median/quartiles of age of physicians as to when they gain their first Alaska license. If, indeed, many are older, then this is a group that should be targeted. Direct incentive programs target those practitioners without loans, and, older practitioners.

Finally, support-for-service programs (of all types) constitute only one way to help bolster recruitment and retention of health care professionals. Alaska must develop a multi-pronged approach to confronting our growing healthcare workforce shortage.

Conclusion

Substantial evidence shows that Alaska currently experiences a shortage of healthcare professionals, and, that this shortage exists in several key occupational categories.

There are several types of support-for-service programs, and the national experience has proven loan repayment programs to be robust. These have demonstrated substantial and longstanding success as a public strategy which has helped to rectify such shortages. To quote from Pathman, et al. (2004),

“As a whole, states’ support-for-service programs bring physicians to needy communities where they find satisfying work caring for at-risk patient populations and remain for many years. Of all program types, the loan repayment and direct financial incentive forms, which target physicians after training, show the broadest successes. The successes of these state programs warrant their continued support and perhaps expansion to remedy the continuing maldistribution of physicians.” (pg. 567).

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