

A National Health Service Corps for the 21st Century

Executive Summary

The National Advisory Council on the National Health Service Corps (NHSC) strongly supports Reauthorization of the NHSC in 2000.

For more than 25 years, the Mission of the NHSC has been to assist underserved communities in the recruitment and retention of community responsive, culturally competent clinicians who can help meet their health care needs. In pursuit of that mission, the NHSC stands as the major Federal program to directly address one of the root causes of underservice in the Nation - the maldistribution of clinicians. However, despite the fact that over the course of its history the NHSC has enabled more than 20,000 clinicians 'to go where others choose not to go,' the problems of lack of access and increasing health disparities among some segments of the population have grown more critical. These problems have contributed to the burgeoning growth of a health care 'underclass' in America - millions without access to primary medical, oral, and mental and behavioral health services - that has become a national problem that demands a national response.

In the next century, the NHSC will be an integral part of the Health Resources and Services Administration and Bureau of Primary Health Care's campaign to insure 100 Percent Access - that every American will be able to receive care from a primary care clinician - and to Eliminate Health Disparities - to bring the level of health of every American up to the same high standard. The Council considers this effort to be of crucial importance to the improvement of the overall health of the Nation, and has sought to determine how the NHSC may best contribute to it. The Council has consulted with health care experts, health care delivery associations, professional organizations, and Program staff at the national, regional, state, and local levels. Based on these consultations and its own deliberations, it is the conclusion of the Council that the NHSC remains the most effective mechanism through which to address the issues of underservice. Furthermore, the NHSC has the capability to significantly increase access and contribute to the reduction of health disparities in the future if it is granted the legislative and budgetary tools appropriate to meet the national need.

In order to meet its mission, and to contribute to the goals of 100% access and the elimination of health disparities for all Americans, the NHSC of the 21st Century will require a systematic approach to comprehensively address the issues of underservice over the next decade: by first identifying communities of greatest need, assisting them in the recognition of their needs and the resources available to meet them, and developing new, integrated, primary health care delivery systems. To accomplish this, the NHSC must have the flexibility to respond to changes in the health care environment; as well as to be able to better accommodate the widely diverse needs and circumstances of its state and community partners.

Creation of a more responsive and effective NHSC will require amendments to the current authorizing legislation. These changes, supported by a substantial increase in its appropriation, will enable NHSC to continue and improve the ongoing collaborative efforts with its current partners as well as pursue innovative initiatives with new faith-based and business partners to better meet the needs of the Nation's underserved communities and vulnerable populations.

In support of Reauthorization of the NHSC in 2000, the National Advisory Council on the NHSC makes the following Recommendations:

1. The NHSC be reauthorized in the year 2000 for a period of 10 years; that the NHSC Field Budget and the NHSC Recruitment Budget be appropriated at no less than \$232 million annually.
2. The National Health Service Corps shall establish as a programmatic priority an increase in the placement of nurse practitioners, certified nurse midwives and physician assistants, dentists, dental hygienists and mental and behavioral health professionals.
3. The National Health Service Corps shall collect, assess, and periodically disseminate such information regarding the Program's activities and progress in key areas that impact on its primary long term goals.
4. Establish a Research, Development, and Demonstration Program, to be budgeted at no less than 1 percent of the annual NHSC appropriation.
5. For both scholars and loan repayers, extend the duration of the service commitment to allow fulfillment through less than full-time practice (LTFT).
6. Re-establish the Community Scholarship Program and integrate it and the State Loan Repayment Program within the Title III NHSC authorizing legislation, with modifications.
7. Expand eligibility for placement of a clinician from the Community Scholarship and State Loan Repayment Programs to include for-profit sites that: 1) Serve Medicare and Medicaid patients, 2) Accept sliding fee scales, and 3) Serve patients regardless of their ability to pay. Placement priority shall be given to not-for-profit sites, particularly in cases where both non-profit and for-profit sites are in competition to serve the same population.
8. Provide an explicit exclusion from Federal income, FICA, and self-employment taxation for all payments to individuals participating in the NHSC Scholarship Program, the NHSC Loan Repayment Program, the Community Scholarship Program, and the State Loan Repayment Program.

9. Reauthorize the National Advisory Council on the NHSC for 10 years and include in its scope of responsibilities the Community Scholarship and State Loan Repayment Programs, and delete from that scope the Indian Health Service (IHS) Scholarship Program.
10. Eliminate section 334 of the Public Health Service Act (Cost Sharing).
11. Remove the required 3:1 ratio of vacancies to scholar (up to 500 entities).

It is the Council's position that incorporation of these legislative changes will enable the Program to continue its proud tradition of service to the underserved in a fashion that is both innovative and responsive to the needs of the communities the NHSC serves.

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A National Health Service Corps for the 21st Century: "Applying the Present to the Future..."

Statement of the Problem

On the brink of a new century, the National Health Service Corps (NHSC), with its more than 25 year tradition of service to the underserved, is needed more than ever. Put simply, the Nation's health care workforce:

- is not being trained in the right specialties,
- is not working in the right places,
- is not seeing the right people,
- and is not as diverse as the population it serves.

There exists in America a looming health care crisis as a result of decreasing access to services due to an inability to pay for services or the absence of a clinician entirely, and increasing health disparities among many segments of the population such as the incidence of hypertension among African-Americans and diabetes among Native Americans.

Measurements of Need

At the close of the 20th century, the health care system of the United States falls woefully short of the goals of providing 100 percent access to health care services and the elimination of health disparities among all segments of the American population.

- The U. S. Census Bureau estimates 44.3 million people, or 16.3 percent of the total U. S. population, lack health insurance ¹
- The U. S. Public Health Service has estimated that as many as 150 million people are without dental coverage ²

¹ The U. S. Census Bureau, "Health Insurance Coverage 1998," Table 2, from Web Site: www.census.gov.

² Oral Health Coordinating Committee, USPHS, "Toward Improving the Oral Health of Americans: An Overview of Oral Health Status, Resources, and Care Delivery," Public Health Reports, 1993; 108 (6): 657-72.

- As estimated by the Department of Health and Human Services (DHHS):
 - 47 million people in the U.S. live in designated primary care health professional shortage areas (HPSAs),
 - 25 million in dental HPSAs, and
 - 44 million in mental health HPSAs ³.

Based only on the DHHS estimates, more than 20,000 additional clinicians will be required to provide an adequate level of health care to the underserved.

It should be noted that an area's lack of designation does not necessarily indicate that the area is well or even adequately served - of the Nation's rural counties, all of which can be reasonably said to experience some degree of lack of access, fully one-third are not designated as HPSAs ⁴.

It would appear that a variety of factors: the lack of appropriately trained clinicians in areas of need; geographic, cultural, and linguistic isolation; poverty; and insufficient or absent health care insurance have reduced one in six Americans to a health care 'underclass' that lacks access to primary medical, oral and mental and behavioral health services.

Federal Response to Maldistribution

Experience has shown that it is futile to expect that 'market forces' alone will redress the issue of maldistribution sufficiently to supply underserved communities and vulnerable populations the clinicians they need. Of all the programs that the Federal government has initiated since the 1960s to address the needs of the underserved, the NHSC is the most effective Federal program to directly address the problem of maldistribution of clinicians and its consequences to the Nation's health. Through scholarships and loan repayment contracts linked to a service commitment, the NHSC has assisted many frontier, rural, and inner city communities to recruit and retain the culturally competent,

³ Division of Shortage Designation, Bureau of Primary Health Care (BPHC), "Selected Statistics on Health Professional Shortage Areas" June, 1999.

⁴ Center for the Health Professions, University of California - San Francisco, "Front and Center," vol. 3, issue 4, Summer, 1999.

community responsive clinicians that are best able to meet their needs. Despite the success of these recruitment programs, the NHSC's current Field Strength of 8,000 clinicians, though expected to serve almost 5 million people this year, meets barely 12 percent of the identified need.

Reauthorization of the NHSC

The National Advisory Council on the NHSC is chartered to advise, and make recommendations to the Secretary, DHHS, on issues relating the NHSC. After long and careful consideration, the Council has concluded:

- The NHSC remains the most effective mechanism through which the Federal Government can intervene to redress the present and future inadequacies of health services delivery and inequities in health status suffered by too many Americans.
- Reauthorization of the NHSC and its Recruitment Programs in the year 2000 offers the opportunity to make changes in the authorizing language which will enable the NHSC to be more responsive to the challenges of a rapidly changing health care environment that can be anticipated in the next decade.
- A 10 year authorization will grant the NHSC the stability to engage in the long term planning of the work and its implementation over time.
- Reauthorization is the opportunity for the NHSC to reset program policy priorities to better reflect the work that needs to be done and how resources will be allocated to forward that work.

NHSC Goals for the 21st Century

The recommended appropriation of \$232 million will fuel the two interrelated goals of the NHSC in the first decade of the new century:

- To *increase funding of the NHSC Recruitment Budget* to a level which is projected to produce a stable NHSC Field Strength of at least 5,000 clinicians by the end of the period, and
- To *increase funding for the NHSC Field Budget* to develop and maintain an increased number of integrated systems of care in underserved communities in order to deliver comprehensive primary medical, oral, and mental and behavioral health services to an estimated 10 million people residing in those communities.

⁵ National Health Service Corps, BPHC, Program data.

NHSC Recruitment

The NHSC Recruitment includes the NHSC Scholarship and Loan Repayment Programs, the State Loan Repayment Program, and the Community Scholarship Program. These Programs have proven to be highly successful methods for attracting clinicians with a dedication to the ideal of service to the underserved; enabling more than 22,000 clinicians over the history of the program to serve the communities and people that need them most. This success is due in large part to the Programs' focus on:

- *Minority recruitment:* In 1998, 46.2 percent of medical students awarded scholarships were African-American and Hispanic ⁶.
- *Cultural Competence:* The NHSC offers its scholars exposure to the importance of providing care that is both appropriate and acceptable to patients of widely divergent cultural and ethnic backgrounds, while the NHSC Loan Repayment Program enables communities to hire those clinicians the communities believe can best respond to the health care needs of their residents.
- *Retention:* Currently more than 97 percent of all scholars and loan repayers fulfill their service commitment ⁷ and in the longer term, greater than 60 percent of NHSC alumni have continued to serve the underserved in some capacity throughout their careers subsequent to their NHSC service ^{8, 9}.

Taken together, the NHSC Recruitment Programs have produced a NHSC Field Strength with a significantly greater representation of African-American and Hispanic clinicians than exists in the national health care workforce. These Programs have made a significant contribution to the impact the NHSC has had on addressing the problem of maldistribution to date.

⁶ Division of Scholarships and Loan Repayment, BPHC, Program data.

⁷ Division of Scholarships and Loan Repayment, BPHC, Program data.

⁸ "National Health Service Corps Evaluation," Summary of Preliminary Results, (unpublished).

⁹ Rodos, J.J., Honeycutt, D., "NHSC Alumni Survey," (unpublished).

The NHSC Field

A NHSC Field Strength of at least 5,000 has been cited¹⁰ as needed to create a 'critical mass' of clinicians to effectively meet the needs of the underserved. The stability of this critical mass will be strengthened by:

- **The Interdisciplinary Model:** It is a core principle of NHSC policy that access and health disparity issues can be most effectively addressed through the deployment and utilization of a broadly based team of primary care clinicians, bringing their unique skills and knowledge to bear in a concerted, coordinated effort to meet the overall health needs of the patient, the patient's family, and the larger community.
- **Recruitment of all Primary Care Disciplines:** All recruitment programs of the NHSC will be open to qualified students and clinicians in the primary medical, nurse practitioner, physician assistant, certified nurse midwife (NP/PA/CNM), oral health, and mental and behavioral health disciplines and specialties.
- **Underrepresented Minority Focus:** The NHSC will continue to focus its recruitment efforts on underrepresented minorities in an effort to create a workforce that more closely reflects the ethnic and cultural diversity of the population it serves, deeming this to be the most effective means of assuring appropriate and acceptable health care delivery.

In addition to recruitment efforts, the NHSC Field also supports:

- **Staff:** Federal administrative staff in the central office and the Field Offices, as well as the small number of Federally-employed NHSC clinicians deployed in communities
- **Provider Support:** Activities such as reimbursement for site visit costs and site/community orientation programs to support NHSC clinicians as they begin service, and educational opportunities through annual conferences to better enable them to fulfill their service commitment in a community-responsive, culturally competent manner
- **Community Outreach and Support:** Seeking out communities of need, offering technical and recruitment assistance in support of building and sustaining integrated systems of primary health care delivery.

Integrated Systems of Care

¹⁰ Mullan, Fitzhugh, "The Muscular Samaritan: The National Health Service Corps in the New Century," *Health Affairs*, vol. 18, no. 2, March/April, 1999.

Coupled with an increase in the Field Strength is the implementation of an enhanced programmatic priority to develop and maintain integrated, interdisciplinary, community-based systems of care for the delivery of primary medical, oral, and mental and behavioral health care to improve access to health care services and reduce health disparities for a greater proportion of the underserved community. To comprehensively address the issues of underservice over the next decade, the NHSC of the 21st Century will require a systematic approach to:

- identify communities of greatest need,
- assist them in the recognition of their needs and the resources available to meet them, and
- develop and support new primary care delivery systems.

Barriers to Development

Communities that are (or have the potential to be) designated as HPSAs face a variety of barriers. Generally, many lack the resources and/or the expertise to develop realistic and cost-effective strategies to address their unmet health care needs. Areas that are economically depressed, or have a population that is either small or widely dispersed, are unable to support a comprehensive system of care.

As the NHSC has sought to expand access in underserved communities, specific barriers to the development of oral and mental and behavioral health services have been identified:

- **Oral Health:** Without an understanding of oral health issues it is difficult to recognize their importance to the overall health of the individual and the community in the first place, and renders the completion of an application for a dental HPSA designation very problematic.
- The development of a dental office, especially the cost of equipping a treatment facility, is a significant dedication of resources in a poor community.
- Third party reimbursement, most notably Medicaid, is considered inadequate to cover the cost of treatment ¹¹.

¹¹ Office of the Inspector General, DHHS, "Children's Dental Services Under Medicaid: Access and Utilization," OEI-09-93-00240, April, 1996

- There is virtually no dental coverage for working poor, and Medicare offers no dental benefits for adults; as a result most expenditures for dental care are out of pocket.

Separately and together, these issues create significant obstacles to the recruitment of dentists and dental hygienists to underserved areas.

- **Mental and Behavioral Health:** While the issue has received national attention as a result of the recent White House Summit, it nonetheless remains an uneasy subject for many:
- Though the prevalence of mental illnesses, such as depression, alcoholism, and substance abuse, is disproportionately high among low income populations, the number of clinicians serving them is disproportionately low.
- The restrictions that health insurance carriers place on the cost and duration of treatment for mental illnesses act to further reduce access to, and adequacy of, care.

NHSC Response

Historically, the NHSC has recruited primary care clinicians by discipline and specialty in response to the communities' demand for these clinicians, with the result that the 2,439 NHSC clinicians currently in service are distributed as follows:

- 1,943 physicians and NP/PA/CNMs (16 percent of the identified need)
- 308 dentists and dental hygienists (6.2 percent of the identified need)
- 188 mental and behavioral health clinicians (6.4 percent of the identified need).¹²

This unequal distribution of disciplines and specialties is in large part a function of the

¹² National Health Service Corps, BPHC, Program data.

barriers to the development of oral and mental and behavioral health services noted above. It is a goal of the NHSC of the 21st century that its proposed Field Strength of 5,000 be distributed so as to meet approximately 25 percent of the identified need across the primary care spectrum:

-3,000 physicians and NP/PA/CNMs

-1,250 dentists and dental hygienists

-750 mental and behavioral health clinicians

The crux of the matter is increasing demand for these clinicians by overcoming the barriers to development of new service sites. While the strategic approach is discussed below, what will be critical to its implementation will be the NHSC's ability to work in partnership with other entities. These partners, both current and potential, run the gamut from other Federal programs (such as the Bureau of Health Professions), state-based organizations such as State Primary Care Associations, Primary Care Offices, and Offices of Rural Health, to city and county health departments. Other partners will include area health education centers, training institutions, national professional organizations and the business community who will work in collaboration with localities to identify areas of need and to help develop the plans and resources to address that need. One of the resources available to meet the identified need will be NHSC clinicians recruited through:

- **NHSC Loan Repayment Program:** The NHSC has found that it has been able to meet community demand for oral and mental and behavioral health clinicians in recent years through the recruitment incentive of loan repayment. The Program has placed an emphasis on insuring that qualified loan repayment applications in these disciplines are funded in an effort to increase their presence in the NHSC Field Strength. In conjunction with the Agency and Bureau initiatives in oral and mental health, the NHSC will continue its emphasis on recruiting and placing these clinicians in communities in need.
- **NHSC Scholarship Program:** will initiate in FY 2000 a pilot Dental Scholarship program. This pilot will test the collaboration between the NHSC and selected dental schools to train ten students to practice in underserved areas, while the schools and the NHSC develop new practice sites in which these clinicians can serve upon completion of training. While this pilot will do little in the short term to increase the number of dentists in service, as it proves its efficacy it can be expanded to provide increasing numbers of properly prepared clinicians to serve the underserved in the future.

Strategy for the Future

The creation of a critical mass of 5,000 clinicians, and the development and support of integrated systems of health care delivery, are linked in a strategy to enable the NHSC and its partners to overcome barriers to increasing access and eliminating health disparities. This strategy has four components:

- *Community/Clinician Outreach:* The first step is a redoubled effort to reach out to both communities in need and to the clinicians who can best meet that need.
- *Planning and Development:* The NHSC will then assist communities to plan and develop new health care delivery sites and to expand services in existing sites, while guiding and nurturing NHSC scholars as they prepare for practice. Important to the development of a comprehensive system of care is the education of the community and its residents as to the range of health services delivery options available to them.
- *Recruitment Assistance:* As new sites and services are made ready, the Program will be able to help communities recruit clinicians through the scholarship pipeline as well as through loan repayment. The NHSC intends to place particular emphasis in these site development and recruitment activities on oral and mental and behavioral health, creating a Field Strength with a better balance among the oral, mental and behavioral, and primary medical disciplines and specialties.
- *Strengthening the Safety Net:* Finally, NHSC support activities, including retention of clinicians at their sites beyond their service commitment, will help to further strengthen these new health care systems and enable them, over time, to have a measurable impact on the health status indicators of the population being served.

The criteria outlined in this approach, identification of communities in need, assisting in the development of new systems of health care delivery, recruitment and retention of clinicians, and the strengthening of systems of health care delivery, are the work of the NHSC in the 21st century.

A Programmatic Priority

The Council's particular concern is that in many underserved communities real and perceived barriers to practice may constrain the NHSC's ability to continue to improve access to health care delivery by limiting the placement of NP/PA/CNMs, oral health, and mental and behavioral health clinicians. Specifically, while tradition has accustomed Americans to seek out a physician for health care, research has shown that NP/PA/CNMs provide health care of a quality equal to that of physicians in those areas

where their respective scopes of practice overlap¹³. In many instances, the services of a NP/PA/CNM may be more appropriate to the needs of the community than those of a physician.

It is in the best interest of its mission and in meeting the goals of 100 percent access and the elimination of health disparities that the NHSC focus a discrete portion of its resources on an integrated and sustained effort to both expand access to more underserved people and extend practice opportunities to all disciplines and specialties supported by the Program. However, even with an increase in funding to support this effort, the NHSC can only be successful if it continues and builds on its existing partnerships (noted above), but also reaches out to new partners such as faith-based organizations whose congregations are underserved, and businesses that want to improve the health of the communities in which they are located.

Reporting on Progress

Clear definition of Program activities and periodic reporting on the progress of targeted communities will serve the NHSC as sentinel indicators to gauge the effectiveness of the Program's policies and their implementation, enabling it to make adjustments as necessary. In nearly every case, activities of the NHSC involving students, clinicians, sites, and communities will benefit from ongoing evaluation of effectiveness and appropriateness.

It is anticipated that over time these periodic reports will document a level of Program success, backed by data, that will serve as a powerful inducement to communities and entities to collaborate with the NHSC in addressing their primary health care needs.

Research, Development, and Demonstration

Integral to the success of planning for the future is the recognition that it is a dynamic process, requiring a built-in flexibility to adapt to changing circumstances. The NHSC must have the ability to do the research necessary to gauge the efficacy of its interventions, such as population surveys to determine its impact on the degree of underservice in a given community and to measure how service delivery by NHSC clinicians have reduced health disparities among their patient populations. The NHSC must also have the authority to develop and demonstrate new projects that will potentially further improve access and/or reduce health disparities. For example, a demonstration project might include an Incentive Program for clinicians otherwise not eligible for NHSC Scholarship and Loan Repayment Program incentives (such as retired military clinicians and those seeking a mid-career change) to serve the underserved.

¹³ Office of Technology Assessment, Health Technologies Case Study 37, "Nurse Practitioners, Physician Assistants, and Certified Nurse-Midwives: A Policy Analysis," December, 1986.

Such a demonstration would assist in identifying those incentives that are most effective for recruitment and retention and will rigorously assess the impact of the program on improving access to care. In those instances where demonstrations have proven effective, there should be provision within the law to allow for full and ongoing program implementation.

Less-Than-Full-Time Practice

In keeping with the principle of adaptation to changed circumstances, it is the position of the Council that the legislative requirement that the fulfillment of the service commitment only through full time practice is counterproductive.

- Part time employment is a reality in the health professions 14.
- A small and/or dispersed population may not be able to support the full time practice of a clinician, and such a community would welcome a part time clinician.
- A growing number of clinicians are amenable to sharing a position with one or more other clinicians.

It may be that there are a significant number of clinicians who would be willing to extend the length of time required to fulfill a service commitment in exchange for doing so on a less-than-full-time (LTFT) basis. To explore the feasibility of implementing the option for LTFT service, the Council suggests:

- All sites that are approved for NHSC clinician placement be surveyed both to confirm the reported utilization of part time employees in health centers as well as to ascertain their acceptance of a part-time clinician to meet their needs.
- The NHSC should explore the possibility of partnerships of current NHSC sites with private sector health care organizations (which may not fully qualify for placement of a NHSC clinician) to determine if joint employment of a NHSC clinician would be mutually beneficial.

State Loan Repayment and Community Scholarship Programs

¹⁴ Singer, Judith, et. al., "Physician Retention in Community and Migrant Health Centers," *Medical Care*, vol. 36, no. 8, 1998.

Over the last decade, the NHSC has sought to leverage its resources through partnerships with States and localities to expand its capacity to serve the underserved:

- *State Loan Repayment Program*: A Federal/State partnership where States recruit and place clinicians in underserved areas through loan repayments that are jointly funded. Currently, more than 500 clinicians are serving in 31 States.
- *Community Scholarship Program*: A Federal/State/locality partnership which jointly funds the education of a clinician chosen by the community who then returns to that community to practice. Currently, 22 clinicians are serving in 9 States¹⁵.

It is the Council's position that the effectiveness of these programs will be further enhanced if they are included within the NHSC authorizing legislation and their scope of activity and appropriations expanded (this last is particularly applicable to the Community Scholarship Program, which received no appropriation in FY 1999). Enhancement of these programs' activities should include:

- Provision for LTFT education (for scholars) Provision for LTFT service (for both programs)
- Making these programs available to all areas currently eligible for placement of NHSC clinicians (such as the Pacific Basin entities, Puerto Rico, and the District of Columbia)
- Inclusion of oral and mental and behavioral health students in the Community Scholarship Program.

These and other programmatic adjustments will increase the flexibility of the NHSC, strengthen its relationships with States and local communities, and expand access by offering increased options for clinicians to participate.

Eligibility of For-Profit Entities for Placement

To further increase the Program's flexibility and capability to expand access, the Council believes that for-profit entities should be made eligible for placement of NHSC clinicians participating in the State Loan Repayment and the Community Scholarship Programs. Placements will be limited to those for-profit entities that meet the other requirements of the NHSC - that the facility:

¹⁵ National Health Service Corps, BPHC, Program data.

- be located in a HPSA or serves a population located in a HPSA,
- serves everyone regardless of the ability to pay,
- employs a sliding fee scale, and
- accepts Medicare and Medicaid assignment.

The purpose of this change is to standardize placement criteria across all the recruitment programs, as currently only NHSC Scholarship and Loan Repayment Program participants may be placed in for-profits. It will also serve to expand access in those few underserved communities where the only health care delivery site is a for-profit. In those cases where a for-profit entity and a not-for-profit entity are serving the same population, all else being equal the priority will be given to the not-for-profit.

Federal Tax Liability

The current liability of the participants in the NHSC Scholarship and Loan Repayment Programs to Federal taxation is, in the Council's view, a potentially absolute barrier to the recruitment of needed clinicians.

- *The NHSC Scholarship Program* directs its recruiting efforts toward those who come from underserved areas, as they have been shown to be most likely to return to practice in underserved areas, and are best able to provide culturally competent care to their patients. The withholding of taxes from the scholar stipend significantly reduces the value of the scholarship to prospective students seeking assistance, often those students who are most in need of support and who are most likely to offer the best care. As the average medical school tuition and fees in 1998-99 for non-residents ranges from \$24,157 (public schools) to \$27,807 (private schools),¹⁶ the NHSC estimates that without this proposed legislative change, a scholar attending a school within this range will experience a 41 percent reduction in the stipend.¹⁷

¹⁶ Association of American Medical Colleges, "U.S. Medical Schools Tuition and Student Fees," Revised: 13 January 1999, from Web Site: www.aamc.org.

¹⁷ Division of Scholarships and Loan Repayments, BPHC, Program evaluation.

- *The NHSC Loan Repayment Program:* Payments made to clinicians under the NHSC Loan Repayment Program have always been considered income, and are subject to income tax. For this reason, the Program pays to the clinician an additional tax assistance payment equal to 39 percent of the loan repayment award to help defray the cost of the tax. However, for many loan repayers, this tax assistance payment generally does not cover the full tax liability, leaving them with a debt to the IRS in addition to their outstanding student loans. More importantly, had the \$9.7 million expended by the NHSC Loan Repayment Program for tax assistance in 1998 been available instead for loan repayment contracts, more than 300,000 underserved people would have received care through the additional 165 clinicians who could have been recruited.¹⁸ Further, the IRS has recently ruled that the payments made to NHSC Loan Repayment Program participants constitute not only income, but wages paid by the NHSC to the clinician in return for services rendered. This ruling requires the NHSC to withhold FICA taxes from payments made to clinicians, which further lowers the value of loan repayment as a mechanism to recruit clinicians into underserved areas.

Relief from the tax liability for the NHSC Scholarship Program will increase the attractiveness of this recruiting incentive to one of the Program's key recruiting targets: students with underserved backgrounds who are in need of financial assistance. In the case of the NHSC Loan Repayment Program, such relief will increase the number of contracts that can be awarded, with the result that the underserved will have greater access to health care.

Other Issues

There remain several other issues which, if resolved through adjustment in the authorizing legislation, will facilitate the operation of the NHSC in the 21st century:

- *National Advisory Council on the NHSC:* As Reauthorization of the NHSC will also include the National Advisory Council, the Council should have included under its charter all the Programs of the NHSC: the NHSC Scholarship and Loan Repayment Programs, the State Loan Repayment Program, and the Community Scholarship Program. Also, since the Indian Health Service Scholarship Program authorization was decoupled from the NHSC legislation in 1995, this Program should be removed from its charter.
- *The Cost Sharing Provision of the Public Health Service Act (Section 334)* should be eliminated. This provision requires entities which employ NHSC clinicians to help defray the cost to the government of the scholarship or loan repayment of

¹⁸ Division of Scholarships and Loan Repayments, BPHC, Program evaluation.

the clinician. This 'cost sharing' can be waived if the entity demonstrates that these funds are being used to improve the level of care or increase access to services. Implementation of this provision has become increasingly burdensome as the cost to the NHSC of administering this billing process is considerable, the request for waiver is virtually always granted, and the prospect of receiving such a bill has been cited by some communities as a barrier to requesting NHSC recruitment assistance in the first place.

- *The Ratio of Vacancies to Scholars:* Given that the statutory limit of the vacancy list for scholars is fixed at 500 entities, the requirement that there be three vacancies for each scholar up to that limit has also become increasingly irrelevant as the number of scholars available for service has grown. In light of the recommendation for further increase in the size of the NHSC of the 21st century, continued reference to a 3:1 vacancies to scholar ratio will serve only to be a source of confusion and potential friction between the NHSC and the clinicians it seeks to recruit. Related to this issue, the NHSC has begun to test the feasibility of an on-line, real-time vacancy list accessible via the Internet. The Council supports this effort, and implicit in this Recommendation is that the statutory language be revised to allow the Program the greatest flexibility to implement this system.

In Conclusion

As in the last decade of the 20th Century, the first decade of the 21st will likely be subject to rapid changes in the health care environment. While these changes cannot be predicted with any accuracy, they can be anticipated. The lesson that the NHSC has learned from its past is that it must be proactive in pursuit of its mission, and that activity can be best supported by legislation that facilitates a real-time, flexible response to changing circumstances.

The history of the NHSC is that of a proud tradition of service to the underserved; its record of implementing that tradition in pursuit of its mission is unparalleled. It is the position of the National Advisory Council on the NHSC that increased programmatic flexibility is the key to the NHSC making a significant contribution to the goals of 100 percent access and the elimination of health disparities for all Americans.

RECOMMENDATIONS OF THE NATIONAL ADVISORY COUNCIL REGARDING REAUTHORIZATION OF THE NATIONAL HEALTH SERVICE CORPS

1. The NHSC be reauthorized in the year 2000 for a period of 10 years; that the NHSC Field Budget and the NHSC Recruitment Budget be appropriated at no less than \$232 million annually.

Rationale: The private health care system in the U.S., both non-profit and for profit, has failed to provide an adequate level of access to primary medical, oral, and mental and behavioral health care services to an estimated 47 million people across the country who reside in underserved areas. Market forces alone do not supply providers to sparsely populated areas or to areas where people cannot pay for private care. Approximately 10.6 million people who live in underserved areas receive health care through programs of the Bureau of Primary Health Care (BPHC) specifically Community and Migrant Health Centers and Health Resources and Services Administration (HRSA)-supported Rural Health Centers. Care is also delivered in many other non-supported clinics from clinicians of the National Health Service Corps (NHSC), the major Federal program to directly address the central problem of the maldistribution of providers. However, even the combined resources of the BPHC programs are woefully inadequate in addressing the access to care issue.

The NHSC currently has only 2,439 clinicians in service across the country. The nation needs 20,000 more clinicians, properly distributed in currently underserved areas, to completely redress these access issues. The National Advisory Council on the NHSC recommends that the Field Strength of the NHSC be doubled to 5,000 clinicians in service to the Nation. This increase in the NHSC Field Strength, coupled with the other BPHC and HRSA activities, will create access to primary medical, oral, and mental and behavioral health services for more than 15 million underserved people each year.

To accomplish these goals the reauthorized Scholarship and Loan Repayment Program should:

- be available to primary medical care providers, including physicians, nurse practitioners, physician assistants and certified nurse-midwives (NP/PA/CNMs); primary oral care providers, including dentists and dental hygienists; primary mental and behavioral health care providers, including clinical psychologists, clinical social workers, marriage and family counselors, and psychiatric nurse specialists; and other providers designated by the NHSC; and
- target scholarships and loan repayment contracts to recruit the health care providers (in terms of background, racial/ethnic diversity and training) who are best able to meet the needs of underserved communities.

2. The National Health Service Corps shall establish as a programmatic Priority an increase in the placement of nurse practitioners, physician assistants, and certified nurse midwives (NP/PA/CNMs), dentists, dental hygienists and mental and behavioral health professionals.

Rationale: To most effectively meet its mission, the NHSC must emphasize the development of new systems of health care delivery in communities of greatest need. This task will require close cooperative efforts with State and local organizations and other partners to identify those communities, and to assist those communities in a collaborative effort to identify their health care needs and the strategies to address them. Planning and development shall be based on the interdisciplinary model of health care delivery; communities shall be encouraged to avail themselves of the broadest array of health care clinicians to meet their needs in the most creative and cost-effective manner.

In support of this programmatic priority the Council recommends that no less than 5 percent and no greater than 10 percent of the annual program budget will be allocated to support community-based, site development activities. This specific funding allocation insures that the NHSC will continue to pursue these developmental activities as an integral part of the Program mission.

These activities are to improve access to health care services and reduce health disparities through the development and maintenance of integrated, interdisciplinary, community-based systems of delivery of primary medical, oral and mental and behavioral health care. Site development activities shall be targeted for the purpose of:

- increasing community utilization of NP/PA/CNMs through a program of community education and outreach;
- increasing access to oral health care through assessment of specific individual community needs and assistance in dental site development (e.g., technical assistance for the designation process, leveraging resources, budgeting, facility development, etc.), and
- increasing access to mental health care through assessment of specific individual community needs and assistance in mental health site development.

3. The National Health Service Corps shall collect, assess, and periodically disseminate such information regarding the Program's activities and progress in key areas that impact on its primary long term goals.

Rationale: The work of the NHSC in the 21st Century will focus on identifying and meeting communities' needs and expanding access to underserved people. Current legislative reporting requirements focus on the recruitment and retention of clinicians

without reference to the impact of their services on either increasing access or reducing health disparities at the community level. It is by this impact, measured over time, that the success of the Program can be best determined. The NHSC needs the flexibility to report on particular measurements and health care delivery issues as they dynamically evolve and impact the Program's long-term goals. Reports generated on the basis of program outcomes will enable the NHSC to gauge the effectiveness of the Program's policies and their implementation, enabling it to make adjustments as necessary. The NHSC should encourage the development of mechanisms that further the establishment of national and inter-organizational collaborative objectives, measurements, and evaluation processes. The Council recommends that the NHSC serve as a resource to underserved communities; that backed by a documented record of success, the Program can share its models of health care delivery and its expertise in adapting them to meet a community's specific requirements.

Report Generation: The NHSC will issue periodic reports to address activities and progress in the areas below. The Council will assist the NHSC with the development of specific measurements.

Operational Definitions:

- **Community Assessment and Development** addresses the ability of the NHSC and its organizational partners to identify those communities that need primary medical care, oral, and mental health services yet lack the system infrastructure to support those services, and collaboratively build and strengthen systems of care within communities.
- **Increasing Access** expresses the ability of community members to receive appropriate health care when needed and the availability of clinicians in communities.
- **Retention** addresses two different areas. First, the ultimate outcome is the development of a stable base of well-trained, satisfied clinicians in each underserved community to provide care in the long term. Secondly, and in support of that outcome, retention also refers to the long-term effect of influencing NHSC clinicians to continue their professional efforts to serve or advocate for the medically underserved beyond their service obligation.
- **Eliminating Health Disparities** addresses the improvement of health status indicators of underserved community members to parity with those segments of society with the best health status indicators. These include (but are not limited to) maternal and infant mortality rates, immunization rates, untreated dental caries in children, and excess morbidity due to chronic disease complications such as oral cancer and diabetes.

The measurements described under the definitions are of the site and health services delivery systems development activities described in Recommendation 2, above. It should be underscored that these activities, in varying forms over the years, have been the basis by which the NHSC has developed placement opportunities for its clinicians. The purpose of these two recommendations is to create a coherent core of activities and measurements around which the NHSC can develop a strategic plan to more systematically contribute to the Agency's and Bureau's goal of 100 percent access through the recruitment of clinicians to communities in need and the elimination of health disparities as a result of the care provided by those clinicians over time.

4. Establish a Research, Development, and Demonstration Program, to be budgeted at no less than 1 percent of the annual NHSC appropriation.

Rationale: Funding to support the establishment of a Research, Development and Demonstration Program will provide for:

- an expansion of current data collection and analysis to include measurements in Recommendation #3;
- an increase in resources to address new issues and concepts in primary health care delivery, and to evaluate their potential contribution to the Program's ability to serve the underserved, and
- the flexibility to develop and monitor innovative demonstration models designed to improve strategies which increase access to care and eliminate health disparities.

These elements will provide the NHSC with the flexibility to respond to new issues and creative ideas which impact access to care and health disparities. Recommendation 3 has added new measurements, which necessitate additional data collection and analysis. The NHSC is encouraged to investigate and develop partnerships with such entities as academic health centers and health-oriented foundations to create additional resources to expand its research, development, and demonstration capacity.

5. For both scholars and loan repayers, extend the duration of the service commitment to allow fulfillment through less than full-time practice (LTFT).

Rationale: The option for less-than full-time (LTFT) service will meet the needs of the NHSC, communities and clinicians. The LTFT option will:

- allow for placements tailored to meet the needs of the community,
- expand the clinician recruitment pool, and
- provide for greater flexibility in balancing the clinician's professional and personal

demands.

The LTFT commitment requires a concomitant increase in the amount of time that a clinician must remain in a community. In the simplest example, a two-year full time service commitment would require four years to fulfill if the clinician works only half time at the site. This option has the potential to increase the satisfaction of all parties involved in the experience, and so enhances the probability that the clinician will be retained at the site beyond the service commitment.

6. Re-establish the Community Scholarship Program and integrate it and the State Loan Repayment Program within the Title III NHSC authorizing legislation, with modifications:

a) Permit part-time education (for scholars) and LTFT service (for scholars and loan repayers)

Rationale: These options for education and service will enable these programs to expand the pool of students/clinicians to be recruited. Part-time students, face with the necessity of working full time while pursuing an education, and with access to an increasing array of academic alternatives (such as distance based learning) are currently ineligible to participate in either program. Additionally, as has been noted above, LTFT employment is a growing reality in the health professions.

b) Expand the definition of 'States' eligible to receive grants for both Programs to include the District of Columbia, the Commonwealth of Puerto Rico, the Republics of Palau, Guam, and the Marshall Islands, American Samoa, the Federated States of Micronesia, and the Commonwealth of the Northern Marianas Islands.

Rationale: Previously, the Community Scholarship Program has been limited to the States and the District of Columbia, and the State Loan Repayment Program limited to the States only. This expansion will enable the NHSC to more effectively provide health care in these areas by facilitating local recruitment of clinicians, better insuring culturally competent health care delivery and increasing the potential for long-term retention.

c) Permit the States which administer these Programs to determine the disposition of clinicians placed in default.

Rationale: This provision gives the States as much autonomy as is practicable to maximize the potential of service. It may also serve as a stimulant for development of innovative means for resolving disposition of clinicians placed in default in the NHSC Scholarship and Loan Repayment Programs.

d) Permit the States which already administer these Programs to request Federal funding for grant-related administrative costs, limited to 10 percent of total funds awarded and not subject to the matching funds requirement.

Rationale: Grantees are making significant investments in program administration, investments which must come from additional funding over and above the matching funds requirement. Given the modest grant awards (none in excess of \$100,000) the matching funds requirement appears excessive. Unmatched Federal funds dedicated to administrative costs will enable these grantees to considerably strengthen their Programs.

e) Expand the Community Scholarship Program to include support for oral and mental/ behavioral health clinicians.

Rationale: Current legislation limits the Community Scholarship to NP/PA/CNMs and physicians. In many communities the greatest needs are in mental/behavioral health and dentistry. Including these disciplines will enable communities in designated mental or dental HPSAs to support students from their communities, interested in pursuing these professions and returning to practice in the local area.

f) The Community Scholarship Program requires a community, state, and federal partnership. The federal government will provide 50% of the scholarship award, the community and state will share the remaining portion of the scholarship award based on negotiation at the local level.

Rationale: This arrangement will confer maximum flexibility to States and localities to work together to meet local need within the context of State-wide workforce and access planning, without encumbering them with an arbitrary funding requirement.

7. Expand eligibility for placement of a clinician from the Community Scholarship and State Loan Repayment Programs to include for-profit sites that: 1) Serve Medicare and Medicaid patients, 2) Utilize sliding fee scales, and 3) Serve patients regardless of their ability to pay. Placement priority shall be given to not-for-profit sites, particularly in cases where both non-profit and for-profit sites are in competition to serve the same population.

Rationale: In those instances where a community may only have a for-profit facility serving an underserved population; that entity is not currently eligible for placement of Community Scholarship and State Loan Repayment clinicians. The inclusion of for-profit sites for clinician placement expands the numbers health care delivery sites that can be facilitated by the NHSC.

8. Provide an explicit exclusion from Federal income, FICA, and self-employment taxation for all payments to individuals participating in the NHSC Scholarship Program, the NHSC Loan Repayment Program, the Community Scholarship Program, and the State Loan Repayment Program.

Rationale: This provision would make the NHSC Scholarship Program comparable to the Veteran's Affairs Scholarship Program (which also offers scholarships in return for a service commitment). The Congressional Budget Office (CBO) has scored the budget impact of this tax exclusion as having a negligible revenue effect. In addition, NHSC LRP participants currently pay Federal income tax on the income provided from awards for loan repayment. To assist NHSC LRP participants with this additional tax liability, the NHSC provides an additional 39% in LRP funds, which reduces the number of clinicians which could be funded if the exemption were in place.

9. Reauthorize the National Advisory Council on the NHSC for 10 years and include in its scope of responsibilities the Community Scholarship and State Loan Repayment Programs, and delete from that scope the Indian Health Service (IHS) Scholarship Program.

Rationale: Should the recommendation to re-establish the Community Scholarship Program and reauthorize the State Loan Repayment Programs be implemented, it follows that the Council's charge regarding advising and recommending to the Secretary be extended to include both. Also because the IHS Scholarship Program has been legislatively decoupled from the NHSC, and the Council's recommends that it be removed from its charge.

10. Eliminate Section 334 of the PHS Act (Cost Sharing).

Rationale: This section of the law requires that an entity employing an NHSC clinician repay to the Federal government the costs of scholarship and loan repayment made on behalf of and to the NHSC clinician by the Federal government. The financial incentives provided by the NHSC Program are considered recruitment costs to the employing entity and therefore should be borne by that entity. Waivers are granted provided the entity reinvests the equivalent amount to improve its capability to deliver services or the entity is financially unable to meet the requirement. Practically all sites request waiver of payment, and nearly all of those are granted; for example, in 1997 only \$233,000 in unwaived bills were collected into the General Fund of the U.S. Treasury.

11. Remove the required 3:1 ratio of vacancies to scholar (up to 500 entities).

Rationale: The ratio of three vacancies for each scholar was intended to assure scholars of some choice in matching to a site. However, the number of vacancies that

may be made available to scholars is capped at 500 entities, in an effort to focus placement of scholars in communities with the greatest shortages. In recent years, the 3:1 ratio has been inapplicable due to the increasing numbers of scholars available for placement and, given the increase in the size of the Program that the Council recommends (see Recommendation 1, above), it will remain inapplicable. Through the strengthened community development activities proposed in Recommendation #2, focused on communities of greatest need, viable and appropriate sites will continue to be identified in numbers sufficient to allow scholars an adequate pool from which they may choose to serve.

It is the Council's position that incorporation of these legislative changes will enable the NHSC to continue its proud tradition of service to the underserved in the most innovative and responsive manner.

**The NHSC of the 20st Century:
A Short History**

The National Health Service Corps (NHSC) was created when the Emergency Health Personnel Act of 1970 was signed into law as Public Law 91-623 on the last day of that year. Its mandate was very broadly drawn:

“It shall be the function of an identifiable administrative unit within the Service to improve the delivery of health services to persons living in communities and areas of the United States where health personnel and services are inadequate to meet the health needs of the residents of such communities and areas.”

The 1960s saw a significant growth in the number of health professions schools and a marked increase in the number and kinds of health care clinicians. However, as increasing numbers of physicians became specialized in their practices, the number of primary care physicians decreased. These new specialist and sub-specialist practices required the high-tech support available only in large tertiary care centers, and more and more physicians became located in urban areas. Generalist physicians, as a percentage of the health care workforce, continued to decline as medical schools and training institutions focused on the more >prestigious’ (and more lucrative) specialty and sub-specialty training. As access to primary care services decreased, it came to be recognized that the problem underservice was not simply a function of too few clinicians, but that it was a result of the maldistribution of the clinicians that already existed.

Put simply, too few clinicians were training in the right specialties, practicing in the right areas, or seeing the right people. The NHSC was created to address this issue. Its charge was simple - place physicians and dentists.

Within six months of its initial operation in 1972, the NHSC had placed 180 clinicians in over 100 communities. Though labeled ‘volunteers’, they were in fact Federal employees, USPHS Commissioned Corps Officers or civil servants who were assigned to underserved areas to practice. This first experiment quickly revealed two significant problem areas.

The Program was too small. The number of Federally-employed clinicians (or those willing to become Federally employed) who would accept assignment in underserved areas represented too small a pool to significantly reduce the level of underservice. So in 1972 the Emergency Health Personnel Act Amendments established the NHSC Scholarship Program, which linked award of a full scholarship (tuition, fees, and stipend) to a commitment on the part of the scholar to serve in an underserved area. Additionally, the Scholarship Program expanded the pool of clinicians available for service by offering scholarships to nurse practitioners, physician assistants, and certified nurse midwives (NP/PA/CNMs), as well as to dentists and allopathic and osteopathic primary care physicians (i.e. family practice, general internal medicine, general pediatrics, obstetrics/gynecology, and psychiatry). While the NHSC continued

to place volunteers in the interim years, the first scholars were chosen, completed their training, and began service in 1977.

Second, there was no mechanism in place to identify underserved areas, and it naturally followed that there was no way to gauge the relative need of communities. To a large degree, underserved communities were self-proclaimed, and applied to the NHSC for the placement of a clinician without data to support the claim of being underserved. This created placement difficulties, which could be anticipated to become critical in future years as the number of scholars to be placed increased. By 1978, the NHSC Scholarship Program had grown from \$3 million in 1974 to \$60 million, and the number of clinicians coming out of the 'pipeline' to be placed virtually doubled the NHSC Field Strength in one year (from 690 to 1,256).

To gauge the relative need for health care clinicians in communities, the health professional shortage area (HPSA) designation process was established in 1978. This refined the 1972 Amendments, which created Health Manpower Shortage Areas (HMSAs), and the 1976 Health Professional Education Assistance Act, which required that an area must be certified as a HMSA in order to apply for a NHSC placement. Under this process a community must demonstrate a quantifiable critical shortage of health professionals through designation as a HPSA in order to qualify for NHSC placement assistance.

By 1980 the NHSC was poised to make a serious effort to address the problem of maldistribution and increase primary care access to the underserved. Its budget that year was \$150 million, with a Field Strength 2080 in service to the underserved. Unfortunately, this was also the year that the Graduate Medical Education National Advisory Committee (GMENAC) issued its report on the physician workforce.

GMENAC predicted a surplus of physicians in the U.S. by 1990, and further theorized that, as physicians saturated the urban and suburban communities, market forces would push more and more physicians into underserved areas. 'Diffusion' would solve the problem of lack of access and, parenthetically, obviate the need for the continuance of the NHSC beyond the next decade.

During the 1980s, the NHSC fell victim to a policy sea-change in Washington. Buttressed by the GMENAC report, and driven by the twinned goals of reducing the size of the Federal government, and limiting its 'intrusion' into activities that could be better handled at the state and/or local level, the Administration cut the NHSC's budget, and cut it again. It became apparent that the Program was slated for dissolution by 1990.

That the NHSC survived was due in part to the fact that GMENAC was both right, and wrong. As has been previously discussed, medical schools did turn out a lot of graduates, but the market did not draw them out into less competitive areas; it drove them instead further into specialization and sub-specialization. This trend was abetted by Medicare reimbursement policies, while the quantum leap in medical knowledge both

required sub-specialization to master what was already known and fueled the growth of a medical research industry that continually added to the body of knowledge. By the mid-1980s, it was clear that despite the increase in the number of physicians, fewer and fewer of them were seeing patients in primary care settings. Diffusion hadn't occurred, maldistribution was worse, and the problem of lack of access was becoming acute among increasingly larger segments of the population.

In 1987, the NHSC was augmented by the establishment of the NHSC Loan Repayment Program. This new Program recruited already trained and qualified primary care clinicians by offering incremental annual payments to be applied against their student loans in return for service in an underserved area. The NHSC Loan Repayment Program complemented the NHSC Scholarship Program by being able to fill an immediate need for a clinician, as opposed to waiting for one to be produced out the scholarship pipeline. This was particularly important because by 1987 the Scholarship Program's budget had been cut and held to a level below that of its first year (\$2.3 million each year 1985-7, vs \$3 million in 1974), and the pipeline was drying up. Then in 1990, the NHSC was reauthorized for an unprecedented 10 years.

But the NHSC of 1990 was a shadow of its former self. Its budget that year was \$50 million - less than a third of what it had been in 1980. The primary effect of the budget cuts of the previous decade could be seen in the Field Strength: as fewer scholarships were awarded (only 40 in 1988) and the pipeline dried up, the Field Strength fell by two thirds as well (from the peak of more than 3,100 in 1986, the NHSC would be able to field barely 1,000 in 1991). The NHSC Loan Repayment Program, in only its third year of activity, had barely begun to make up the shortfall, placing only 74 clinicians in the field that year.

By 1994 the NHSC had regained its health. With a budget of \$124 million, it awarded 429 new scholarships and 536 new loan repayment contracts, and the Field Strength had grown by more than 80 percent to 1,867 that year. Then in 1996 the Council on Graduate Medical Education (COGME) (the successor to GMENAC) reported that the future supply of specialist physicians would be in substantial surplus of the number required. Again, it appeared that there would be no further need for the NHSC.

At the same time, the NHSC was subject to internal criticism as well. The Department of Health and Human Services' Office of the Inspector General (IG) reported (April 1994) that poor communication and inflexibility hampered the Program's success in recruitment and retention. The General Accounting Office (GAO) reported (November 1995) that loan repayers were both less expensive per capita and had a lower default rate than scholars, thus a more cost-effective method of recruiting clinicians; moreover, it found fault with the NHSC placement process. A former NHSC scholar reported in two studies (Pathman 1994, Pathman 1995) that the retention rate of NHSC clinicians in rural areas was less than that of non-NHSC clinicians.

In response, the NHSC noted that these reports represented a retrospective look at the Program, and that the criticisms were of problems that the NHSC had already identified and were in the process of addressing. The default rate that the GAO reported as 12 percent in 1995 currently stands at roughly 3 percent, which speaks well of the NHSC's ability to choose its applicants. The vast majority (85 percent) of NHSC clinicians fulfill their commitment in the community to which they were originally assigned, an indication of the increased attention that the NHSC has paid to making a good match between site and clinician. Finally, more than 60 percent of NHSC clinicians have continued to devote part or all of their careers to service to the underserved beyond their original commitment.

In 1994 the NHSC's budget had grown to a peak of \$123.9 million. Much of this funding was directed to the budget of the NHSC's Recruitment Programs, which grew more than seven-fold in this period. This increase replenished the scholarship pipeline, while the Loan Repayment Program placed a total of 1,573 clinicians in the field between 1990 and 1994. Despite the fact that the NHSC's budget has fallen to a plateau of about \$115 million annually since 1995, the NHSC Field Strength has increased in seven of the past eight years.

The NHSC of 1999 has a Field Strength of 2,439, which is roughly 12 percent of need for 20,000 primary medical, oral, and mental and behavioral health clinicians in HPSAs nationwide. Of that total, 1,327 are primary care physicians and 617 are NP/PA/CNMs, recruited through all the NHSC Recruitment Programs. The 307 oral health clinicians in the field are nearly all loan repayers, as the NHSC has found that it could meet the demand for dentists and dental hygienists (as measured by number of requests for these clinicians from communities) through loan repayment. In a similar response to community demand, the NHSC expanded eligibility for participation in the NHSC Loan Repayment Program in 1974 to clinical psychologists, clinical social workers, marriage and family counselors, and psychiatric nurse specialists; currently 88 of these clinicians and 100 psychiatrists are serving.

Historically, about 60 percent of NHSC clinicians have served in rural America. It is interesting to note that in recent years NHSC placements have been trending away from the traditional, grant-supported community and migrant health centers - currently 60 percent of the NHSC Field Strength is placed in non-grant-supported sites such as local health department care centers, hospital-based ambulatory care clinics, small private practices and the like. This trend may be an indication that the NHSC's traditional partners are now sufficiently stable and mature so as to be able to successfully recruit clinicians on their own, without reliance on the NHSC's pipeline of clinicians. It may also be that, as a function of the current high rate of retention of NHSC clinicians in service to the underserved beyond their service commitment; clinician turnover at these sites has been reduced, and so demand for replacement, or backfill, has fallen.

The challenge facing the NHSC now and in the immediate future is to reach out to

communities which hitherto have not been served by the NHSC - to help them identify their health care needs, develop new systems of health care delivery, recruit the clinicians to deliver the care, and strengthen and sustain these new systems over time. This is difficult work, time consuming and resource intensive. To maximize its ability to comprehensively address the issues of underservice in this manner, the NHSC must have the latitude to leverage its resources in new and creative ways that go beyond simply placing clinicians toward a role for the NHSC of partnering with, and advocating for, underserved communities and their vulnerable populations. With the adoption of the legislative and policy recommendations put forward by the National Advisory Council on the NHSC in this paper, the NHSC of the 21st Century will be well-equipped to meet this challenge.