

GAO

Report to the Honorable  
Edolphus Towns, House of  
Representatives

August 1990

# NATIONAL HEALTH SERVICE CORPS

## Program Unable to Meet Need for Physicians in Underserved Areas



**RESTRICTED**—Not to be released outside the  
General Accounting Office unless specifically  
approved by the Office of Congressional  
Relations.

RELEASED



United States  
General Accounting Office  
Washington, D.C. 20548

---

Human Resources Division

B-240414

August 10, 1990

The Honorable Edolphus Towns  
House of Representatives

Dear Mr. Towns:

This report responds to your request for information on the declining number of physicians in the National Health Service Corps (NHSC) and the implications of that decline for staffing health programs serving the poor. NHSC is a program within the Department of Health and Human Services (HHS) that was established in 1970. It encourages the placement of health professionals, especially physicians, in geographic areas and public health programs that lack health manpower. Since 1980, federal funding for the NHSC scholarship program, the main source of NHSC professionals, has been significantly reduced. The resulting decline in numbers of physicians available for placement in shortage areas now is being felt. A federal loan repayment program authorized in 1987 has not offset this decline.

In this report, we (1) compare the current supply of NHSC physicians and other health professionals with the requests for such individuals in health programs in manpower shortage areas, (2) evaluate NHSC's ability to provide health professionals for underserved urban areas, and (3) examine recent implementation of legislative initiatives to increase the supply of NHSC health professionals. On January 16, 1990, we briefed your staff on our preliminary observations. This report presents our final results.

---

## Results in Brief

The number of physicians and other health professionals available annually from the NHSC scholarship program declined from a high of 1,600 in 1985 to about 215 in 1989. Fewer than 135 are expected in 1990. An additional 112 health professionals were available in 1989 from the NHSC loan repayment program. At that time, however, public health programs for the underserved sought more than 1,000 NHSC health professionals to fill vacancies.

One provision of the Public Health Service (PHS) Amendments of 1987 directed NHSC to consider the health problems of urban areas—such as infant mortality, teenage pregnancy, sexually transmitted diseases, and drug and alcohol abuse—in placing family practice physicians. NHSC has not changed its physician placement policies in response to this requirement, however, primarily because of the shortage of family practice

---

fulfill their service obligations have been required to pay back three times the amount of their scholarship awards plus interest.

The scholarship program has made available for service nearly 10,500 health professionals, about 80 percent of them physicians, since 1980. On average, it takes a student 7 years to complete medical school and residency training. Thus, reductions in the NHSC scholarship budget that began in fiscal year 1981 did not begin having a significant impact on the numbers of physicians available for placement until many years later.

Highest funding for the NHSC scholarship program was \$79.5 million in fiscal year 1980, when more than 6,000 scholarship awards were made (2,380 new awards and 4,029 continuation grants). Since 1980, however, program funding levels have declined (see fig. 1 and app. I), as have the numbers of scholarship awards, due to concerns about an oversupply of physicians in the United States by 1990. In 1989, no funds were appropriated for scholarships, but NHSC reprogrammed \$2.95 million for 35 new scholarships and 6 continuation awards.

The number of graduating NHSC scholars (all health professions) peaked in 1985, when about 1,600 scholars were available for placement. Since that time, the number of graduates has declined each year until only about 215 were available in 1989 (see table 1), and fewer than 135 are expected in 1990.

---

## Public Health Programs for the Underserved

Health programs for the underserved—such as community and migrant health centers and IHS and BOP facilities—rely on NHSC to help recruit physicians and other health personnel for their programs.

HHS authorizes and funds community and migrant health centers to provide primary care services to medically underserved populations. In 1989, federal funding for community and migrant health centers represented about 45 percent of the centers' operating budgets and totaled about \$473 million. At that time, there were 560 community and migrant health centers throughout the country, 353 in rural areas, and 207 in urban areas. These centers provided health services to nearly 6 million poor and underserved persons, including minorities, women, children, and the elderly. Nearly half the people who use community and migrant health centers are uninsured.

**Table 1: NHSC Scholars Placed in Various Programs (1980-89)**

Calendar year	Scholars <sup>a</sup> placed				Total
	Community/migrant health centers	IHS	BOP	Other <sup>b</sup>	
1980	411	156	9	333	909
1981	514	157	10	554	1,235
1982	496	150	2	709	1,357
1983	470	154	6	677	1,307
1984	558	155	10	605	1,328
1985	800	120	15	674	1,609
1986	747	120	17	395	1,279
1987	457	136	12	273	878
1988	176	66	7	95	344
1989	141	21	5	48	215
<b>Totals</b>	<b>4,770</b>	<b>1,235</b>	<b>93</b>	<b>4,363</b>	<b>10,461</b>

<sup>a</sup>Scholars include all health professionals, such as physicians, dentists, nurses, and others. This table does not include volunteers and loan repayments.

<sup>b</sup>Private practice option and private practice salaried positions.

Source: NHSC (data as of Feb. 6, 1990).

health manpower needs of urban areas, especially areas with high incidences of infant mortality, teenage pregnancy, drug and alcohol abuse, and sexually transmitted diseases.

## Objectives, Scope, and Methodology

At your request and after discussions with your staff, we focused our work on (1) a comparison of the current supply of NHSC physicians and other health professionals with the requests for such individuals in health programs for the underserved, (2) the ability of NHSC to provide health professionals for underserved urban areas, and (3) the implementation of legislative initiatives to increase the supply of NHSC health professionals.

We reviewed the legislative history of the PHS Amendments of 1987 and appropriate budget and administrative documents. In addition, we interviewed officials of IHS, BOP, the PHS Bureau of Health Care Delivery and Assistance, and the National Association of Community Health Centers. From these individuals, we sought information on the effects of the NHSC physician shortage on their programs. We also interviewed NHSC program officials about (1) policies and procedures for placing NHSC physicians in underserved areas and (2) initiatives to increase the number of NHSC physicians available for placement.

NHSC's policy is to place physicians in health manpower shortage areas of greatest need and where their medical specialties can best be used. This policy most often results in the placement of family practice physicians in rural areas, NHSC officials told us. This is because their comprehensive professional training qualifies the physicians to treat a wide variety of medical problems—a necessity for relatively isolated areas where there may be few other physicians.

Two categories of specialists also are given priority for rural areas. Emergency medical specialists and psychiatrists, if available, may be placed in rural hospital emergency rooms and rural community mental health centers and clinics, respectively. On the other hand, internists, pediatricians, and obstetrician/gynecologists are more likely to be placed in urban areas, because their practices require access to the support of other specialists in an established system of care.

Placements have roughly matched the proportion of rural to urban underserved areas, NHSC officials told us. About 70 percent of available physicians have been placed in rural areas and about 30 percent in urban areas. With fewer NHSC physicians available overall, the number of physicians placed in urban areas has declined sharply, although the proportion has remained about the same. For example, the number of NHSC physicians placed in urban areas declined from 457 in 1985 to 102 in 1989, while the proportion of urban placements remained about 35 percent.

---

## New NHSC Initiatives Not Compensating for Physician Shortages

Concerns about the phaseout of the NHSC scholarship program and the impact of the loss of NHSC physicians on community and migrant health centers, IHS, and BOP led to passage of the PHS Amendments of 1987. This law authorized two new programs to increase the supply of NHSC physicians for manpower shortage areas: a one-time amnesty program and loan repayment programs to operate at the federal and state levels.

---

## One-Time Amnesty Program

The one-time amnesty program allowed individuals who were in default of their scholarship service obligation on November 1, 1987, to fulfill those obligations through approved service in a medically underserved area. To participate, defaulters were required to have a current, unrestricted state license, registration, or certification to practice the profession for which they had received scholarship support.

---

\$4,000,000 in 1990. In the first year of operation, when the program was restricted to physicians, only 20 of 124 applications for loan repayment contracts were approved, due in part to limited funding.<sup>5</sup> In fiscal year 1989, the program was opened to physicians and nurses and 305 applications were received. Of these, NHSC approved 112 loan repayment contracts—97 with physicians and 15 with nurses. Participation in the program was limited by insufficient funding for loan repayment contracts for all qualified applicants and a limited variety of sites at which participants could be placed.<sup>6</sup> In 1988 and 1989, most of the loan repayment physicians were placed in rural areas.

The state-administered loan repayment program is patterned after the federal program. It authorizes HHS to provide matching grants to states to enter into loan repayment contracts with health professionals who agree to serve in underserved areas for a minimum of 2 years. States may repay health educational loans and interest at the rate of up to \$20,000 for each year of service, for a maximum of \$80,000 per participant. Any state may apply for a federal grant to operate a loan repayment program.

Federal funding may not exceed 75 percent of the cost of the approved state program, and must be used only to repay loans for health professionals. That is, federal funds may not be used to support state administrative costs. State funding may be used for loan repayment, administrative costs, or both.

Federal funding for state loan repayment programs has totaled about \$1 million per year since 1988. During the first grant cycle, 10 states applied for support and 7 received it: Maine, North Carolina, Florida, New Mexico, West Virginia, South Carolina, and Texas. Although 21 states applied for federal grants in the second year, only the original 7 received support due to limited funding.

During fiscal year 1989, the seven state loan repayment programs placed 74 health professionals, including 67 physicians, in medically underserved areas. The 67 physicians included the following specialties: 29 family practitioners, 11 internists, 5 pediatricians, and 4 general

---

<sup>5</sup>After approval, three physicians were allowed to withdraw their applications because of extenuating circumstances. The practice of awarding contracts for more than 1 year of service and loan repayment also may reduce the number of contracts made with each year's appropriation.

<sup>6</sup>NHSC restricted the locations available to loan repayment participants to sites on its high priority list. The sites on this list are considered the "most needy," which generally means a community or migrant health center.

---

---

---

---



# Major Contributors to This Report

---

**Human Resources  
Division, Washington,  
D.C.**

Janet L. Shikles, Director, Health Financing and Policy Issues,  
(202) 275-5451  
Edwin P. Stropko, Assistant Director  
Ellen M. Smith, Assignment Manager  
Millie D. Baskin, Evaluator-in-Charge

---

**Requests for copies of GAO reports should be sent to:**

**U.S. General Accounting Office  
Post Office Box 6015  
Gaithersburg, Maryland 20877**

**Telephone 202-275-6241**

**The first five copies of each report are free. Additional copies are \$2.00 each.**

**There is a 25% discount on orders for 100 or more copies mailed to a single address.**

**Orders must be prepaid by cash or by check or money order made out to the Superintendent of Documents.**

---





# Funds Appropriated for NHSC Scholarship Awards (FY 1974-89)

<b>Fiscal year</b>	<b>Funding (thousands)</b>
1974	\$3,000
1975	22,500
1976	22,500
Transition quarter <sup>a</sup>	22,500
1977	40,000
1978	60,000
1979	75,000
1980	79,500
1981	63,400
1982	42,500
1983	15,458
1984	6,300
1985	2,300
1986	2,201
1987	2,300
1988	2,069
1989	0
<b>Total</b>	<b>\$461,528</b>

<sup>a</sup>Due to a change in the federal fiscal year, from ending June 30 to ending Sept. 30

Source: PHS, Bureau of Health Care Delivery and Assistance, Division of Health Services Scholarships

---

# Contents

---

Letter		1
Appendix I Funds Appropriated for NHSC Scholarship Awards (FY 1974-89)		14
Appendix II Major Contributors to This Report		15
Table	Table 1: NHSC Scholars Placed in Various Programs (1980-89)	5
Figure	Figure 1: Funds Appropriated for NHSC Scholarship Awards (FY 1974-89)	4

---

---

## Abbreviations

BOP	Bureau of Prisons
HHS	Department of Health and Human Services
IHS	Indian Health Service
NHSC	National Health Service Corps
PHS	Public Health Service

---

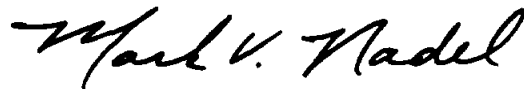
practitioners (specialties were not reported for 18 physicians). Most of these physicians were placed in rural areas at state-supported sites, community practices, and county health units.

---

We discussed the contents of this report with agency officials and incorporated their comments where appropriate. As arranged with your office, unless you publicly announce its contents, we plan no further distribution of this report until 15 days from its issuance date. At that time, copies will be sent to the appropriate Senate and House committees and subcommittees, the Secretary of Health and Human Services, and the Director of the Office of Management and Budget. We will make copies available to other interested parties upon request.

If you or your staff have any questions about this report, please call me on (202) 275-6195. Other major contributors are listed in appendix II.

Sincerely yours,



Mark V. Nadel  
Associate Director, National  
and Public Health Issues

---

Prior to 1987, NHSC regulations required defaulters who declined to practice in an underserved area to buy out their service obligations. They did so by paying back three times the amount of their scholarship awards plus interest. The 1987 PHS Amendments gave defaulters additional options to encourage them to fulfill their obligations by service rather than payback.

Of the approximately 1,100 NHSC scholars who were in default of their scholarship service obligations on November 1, 1987, 389 signed agreements to participate in the one-time amnesty program.<sup>3</sup> To date, 177 scholars have been placed in manpower shortage areas as a result of the program—170 of them physicians. Over one-half of these physicians were placed in rural areas.

---

## Loan Repayment Programs

Two loan repayment programs, one in NHSC and the other state administered, were established by the 1987 PHS Amendments.

Under the federal loan repayment program administered by NHSC, HHS may repay educational loans incurred by selected applicants in the health professions. In exchange, the applicants agree to practice in designated underserved areas for a minimum of 2 years. For each year of service, the program may pay up to \$20,000 toward a participant's government or commercial health educational loan and interest, up to a maximum of \$80,000 per participant for a 4-year obligation.<sup>4</sup>

Final-year students, graduate students, and licensed health professionals are eligible for the loan repayment program. Individuals in any health discipline may apply. Each year, NHSC announces the health disciplines and specialties to which it will give preference, basing them on expected manpower needs for that year. In fiscal year 1990, for example, priority is being given to primary care physicians specializing in family practice, obstetrics/gynecology, general pediatrics, and general internal medicine.

Funding for the NHSC loan repayment program has increased from \$915,000 for fiscal year 1988 to \$3,953,000 in 1989 and an estimated

---

<sup>3</sup>NHSC referred 251 eligible defaulters to the Department of Justice for litigation and 46 to a collection agency. The remaining defaulters either declined to participate in the amnesty program, paid or are paying their debts, are delinquent on their payments, or have filed for bankruptcy.

<sup>4</sup>A health professional may receive up to \$25,000 per year in loan repayments, to a total of \$100,000 per participant, for service in an IHS facility.



---

Our work was performed between November 1989 and February 1990 in accordance with generally accepted government auditing standards.

---

## Shortage of NHSC Physicians Threatens Health Programs for the Underserved

NHSC supplied about half of the physicians working in community and migrant health centers in 1989, as well as nearly one-fourth of IHS physicians and about 40 percent of physicians in BOP facilities. Nearly 10,500 NHSC scholars—including physicians, dentists, nurses, and other health professionals—have been placed in health programs for the underserved since 1980. But over the past 5 years, the number of placements in these programs has fallen sharply.

The lack of physicians and other professionals from NHSC has resulted in vacancies in community and migrant health centers and IHS and BOP facilities. Officials who manage these programs report that they have relied extensively on NHSC physician placements because the programs do not offer competitive salaries, working conditions are poor, and many of the facilities are located in undesirable areas. Consequently, all three programs have difficulty recruiting private (non-NHSC) physicians to fill vacancies. NHSC's ability to fill these vacancies will be less than ever in 1990, when fewer than 135 NHSC physicians will be available.

Over 1,000 vacancies will exist in 1990:

- The National Association of Community Health Centers told us that the 560 community and migrant health centers must fill 800 physician vacancies to reach full staffing of about 2,700 physicians in 1990.
- IHS projects it will need nearly 1,000 physicians to staff its programs during 1990. As of December 1989, there were 155 known vacancies.
- BOP currently has about 50 vacancies in the staff of 150 physicians it needs for prison health facilities.<sup>2</sup>

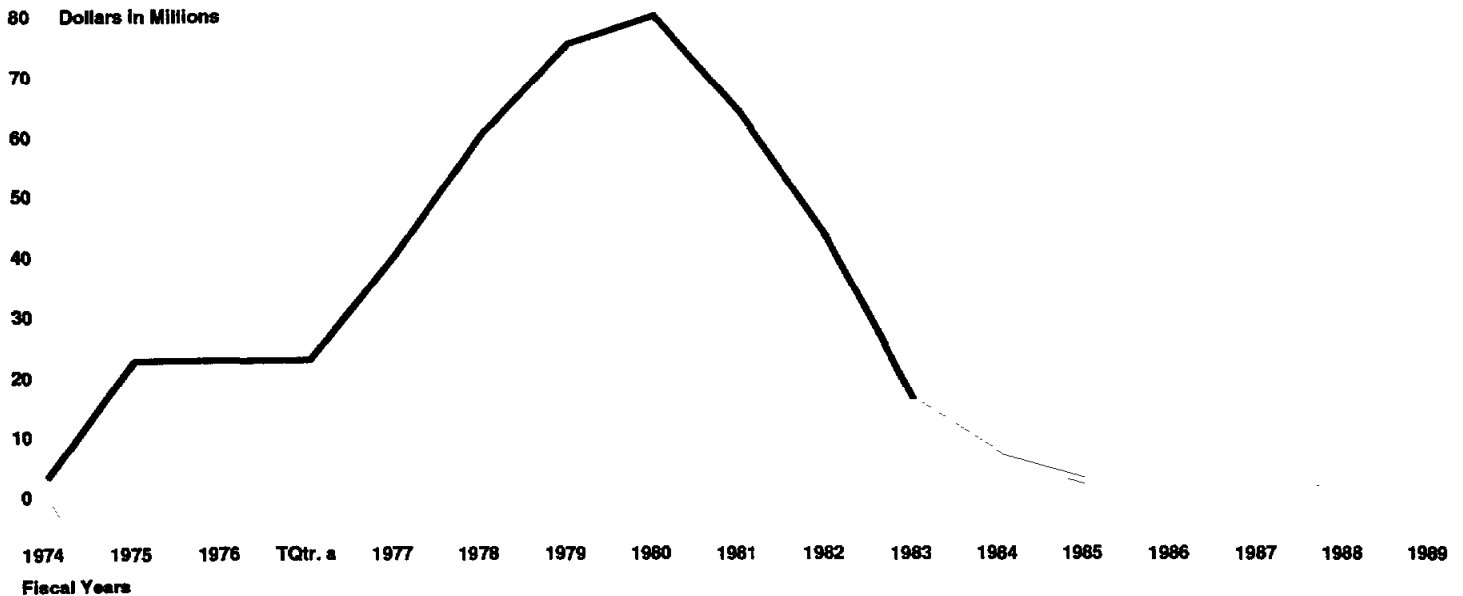
---

## Constraints on Meeting Physician Staffing Needs in Urban Areas

The special health problems of urban areas include high rates of infant mortality, teenage pregnancy, drug and alcohol abuse, and sexually transmitted diseases. HHS is required by the PHS Amendments of 1987 (section 304) to consider these problems when placing NHSC family practice physicians. But the shortage of NHSC physicians has constrained NHSC's ability to meet the physician staffing needs of urban health programs.

---

<sup>2</sup>BOP projects that it will need 357 physicians by 1994, an increase of 138 percent.

**Figure 1: Funds Appropriated for NHSC Scholarship Awards (FY 1974-89)**

<sup>a</sup>Due to change in federal fiscal year, from ending June 30 to ending Sept. 30.

Source: Based on data provided by PHS, Bureau of Health Care Delivery and Assistance, Division of Health Services Scholarships

IHS, an agency of HHS, is responsible for providing comprehensive health services to eligible American Indians and Alaska Natives. Traditionally, IHS has focused its services on reservation-based Indians living in rural areas throughout the continental United States and Alaska. With a total budget of more than \$1 billion in 1989, IHS serves nearly 1.1 million Indians. NHSC also helps provide medical staff for the BOP health care system of 67 facilities serving nearly 57,000 federal prisoners.<sup>1</sup>

## The PHS Amendments of 1987

The PHS Amendments of 1987 (P.L. 100-177) established (1) a one-time amnesty program and (2) federal and state loan repayment programs to help increase the number of NHSC health professionals. In addition, the amendments identified priorities for NHSC to consider in assigning health professionals to underserved areas, including the needs of IHS, the homeless, and geographically isolated areas. One section required NHSC, in assigning family practice physicians, to give special attention to the

<sup>1</sup>BOP projects the number of facilities to increase to 90 serving nearly 100,000 federal prisoners by 1994.

physicians and the continuing demand to fill vacancies in existing programs, a majority of which are in rural areas.

Program changes provided by the 1987 Amendments—most importantly, establishment of NHSC federal and state programs to repay student loans for health professionals in return for service—have not significantly reduced the shortage of NHSC physicians, primarily because program funding has been limited. In 1989, there were more applications from health professionals for NHSC loan repayment contracts and from states for federal assistance grants than could be funded.

---

## Background: NHSC and Programs for the Underserved

The Emergency Health Personnel Act of 1970 (P.L. 91-623) was designed to help overcome the uneven geographic distribution of health providers in the United States and the resulting lack of access to health services for many areas and population groups. Amendments to the act in 1972 (P.L. 92-585) established a scholarship program in NHSC to encourage the placement of health professionals in health manpower shortage areas.

The number of geographic areas—nearly 2,000—designated as underserved due to lack of adequate health manpower and primary care services has not changed substantially since 1980. About 70 percent are rural and 30 percent metropolitan. In 1989, more than 4,100 physicians would have been needed in public and private practice settings to eliminate the manpower shortage designations of those 2,000 underserved areas.

---

## NHSC Scholarship Program

The NHSC scholarship program provides tuition assistance to students of medicine, dentistry, nursing, and other health professions. It does so in return for a commitment to practice in an underserved area after completing approved training.

NHSC scholarship recipients (scholars) are legally obligated to repay 1 year of service for each year of tuition support, with a minimum 2-year obligation. Scholars can fulfill their service obligations by (1) entering private practice or accepting private employment in an underserved area or (2) working as a salaried employee of a public health program. The latter might be a community or migrant health center, an Indian Health Service (IHS) facility, or a Bureau of Prisons (BOP) facility. Since academic year 1978-79, scholars who choose not to

