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The National Health Service Corps

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Summary

The National Health Service Corps (NHSC) provides scholarships and loan repayments to health care providers in exchange for a period of service in a health professional shortage area (HPSA). The program places clinicians at facilities—generally not-for-profit or government-operated—that might otherwise have difficulties recruiting and retaining providers.

The NHSC is administered by the Health Resources and Services Administration (HRSA), within the Department of Health and Human Services (HHS). Congress created the NHSC in the Emergency Health Personnel Act of 1970 (P.L. 91-623), and its programs have been reauthorized and amended several times since then.

The Patient Protection and Affordable Care Act of 2010 (ACA; P.L. 111-148) permanently reauthorized the NHSC. Prior to the ACA, the NHSC had been funded with discretionary appropriations. The ACA created a new mandatory funding source for the NHSC—the Community Health Center Fund (CHCF), which was intended to supplement the program's annual appropriation. However, since FY2012, the CHCF has entirely replaced the NHSC's discretionary appropriation.

The CHCF is time-limited. Initially an appropriation from FY2011 through FY2015, the CHCF was subsequently extended in the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA, P.L. 114-10) through FY2017 and then extended for an additional two years (i.e., through FY2019) in the Bipartisan Budget Act of 2018 (BBA 2018, P.L. 115-123).

From FY2011 through FY2016, the most recent year of final data available, the NHSC offered more than 33,500 loan repayment agreements and scholarship awards to individuals who have agreed to serve for a minimum of two years in a HPSA. In FY2016, the NHSC made 6,129 awards. The number of awards the NHSC makes is only one component of program size, because not all awardees are currently serving as NHSC providers; some are still completing their training (e.g., scholarship award recipients). As such, the NHSC also measures its field strength: the number of NHSC providers who are fulfilling a service obligation in a HPSA in a given year. In FY2016, total NHSC field strength was 10,493. NHSC providers are currently serving in a variety of settings throughout the entire United States and its territories. The majority of NHSC providers serve in outpatient settings, most commonly at federally qualified health centers.

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Introduction

The National Health Service Corps (NHSC) is a clinician recruitment and retention program that aims to reduce health workforce shortages in underserved areas. The NHSC has three components: (1) a federal scholarships program, (2) a federal loan repayment program, and (3) a state-operated loan repayment program. Under each of these programs, health providers receive either scholarships or loan repayments in exchange for a service commitment at an NHSC-approved facility located in a federally designated health professional shortage area (HPSA, see text box).[1] Participants in the state loan repayment programs may also serve in state-designated shortage areas; federal program participants may not. NHSC-approved facilities are generally nonprofit or government-operated (federal, state, local and tribal) organizations that provide care to patients without regard for the patient's ability to pay.

The three NHSC programs are managed by the Bureau of Health Workforce (BHW) in the Health Resources and Service Administration (HRSA), an agency in the Department of Health and Human Services (HHS). The NHSC was created by the Emergency Health Personnel Act of 1970 to provide an adequate supply of trained health providers in federally designated HPSAs.[2] Since the program's inception, Congress has reauthorized and revised the program several times, with the most recent reauthorization included in the Patient Protection and Affordable Care Act (P.L. 111-148, ACA). The ACA permanently reauthorized the NHSC, creating, among other things, a mandatory funding stream for the program and implementing a part-time option, which allows part-time service in exchange for an extended service commitment.[3]

This report provides an overview of the NHSC, including the program's funding, the number and types of providers the program supports, and the locations where they serve.

Health Professional Shortage Areas (HPSAs)

HPSAs are areas—rural or urban—with a shortage of primary medical care, dental, or mental health providers. Specific population groups (e.g., populations with unusually high needs for health services, as indicated by measures such as the poverty rate and the infant mortality rate) and specific facilities (e.g., a community health center, or a facility operated by the Indian Health Service) may also be designated as HPSAs.

The HPSA designation is made based on ratios of provider per population; the specified ratio may change, based on the type of HPSA (e.g., primary care or mental health). For example, an area may be designated a primary care HPSA if it has a full-time equivalent primary care physician ratio of at least 3,500 patients for each primary care physician, or has a ratio of between 3,500 to 3,000 patients for each primary care physician and has a population with high health care needs.

HPSA scores range from 0 to 25 (26 for dental HPSAs), with a higher score indicating greater shortages.

Source: Health Resources and Services Administration, Shortage Designation: Health Professional Shortage Areas & Medically Underserved Areas/Populations, at http://www.hrsa.gov/shortage/index.html.

[1] NHSC providers supported by the federal programs must serve at an NHSC-approved service site; time spent at an unapproved site, even if that site is within a health professional shortage area (HPSA), does not count toward the clinician's service commitment. See U.S. Department of Health and Human Services, Health Resources and Services Administration, *National Health Service Corps Loan Repayment Program*, https://nhsc.hrsa.gov/loanrepayment/lrpapplicationguidance.pdf, p. 30.

[2] P.L. 91-623 was enacted on December 31, 1970. The NHSC is authorized in Sections 331-338 of the Public Health Service Act (PHSA) (42 U.S.C. §254d et. seq.). The federal regulation states the purpose of the loan repayment (42 C.F.R. §62.21) and the scholarship program (42 C.F.R. §62.1).

[3] For additional changes included in the Affordable Care Act, see CRS Report R41278, *Public Health, Workforce, Quality, and Related Provisions in ACA: Summary and Timeline*.

Program Overview

The NHSC consists of three programs: (1) a federal scholarships program, (2) a federal loan repayment program, and (3) a state-operated loan repayment program. The federal scholarship program provides scholarships in exchange for a service commitment at the end of a recipient's education, including any training required before licensure. The two loan repayment programs provide clinicians with loan repayment in exchange for an immediate service commitment.[4] HRSA administers the federal scholarship and loan repayment programs and provides funds to states. States match these funds to operate state loan repayment programs. The largest program is the federal loan repayment program, followed by the state loan repayment program, and then the scholarship program.

The section below describes these three programs. The discussion focuses on program differences; however, the programs share a number of common elements. Specifically, all three programs require a minimum service commitment of two years in a HPSA.[5] All are restricted to U.S. citizens or U.S. nationals,[6] and all provide awards that are exempt from federal income and employment taxes. In addition, all three programs allow physicians, [7] dentists, physician assistants, nurse midwives, and nurse practitioners to participate, but the loan repayment programs also permit additional provider types to participate.[8] The three program types are described below; **Table 2** presents data on the number of awards made under each of these programs.

Federal Scholarship Program

The NHSC Scholarship Program is established in Section 338A of the Public Health Service Act (PHSA).[9] It provides scholarships—including tuition, reasonable education expenses, and a monthly living stipend—to individuals enrolled full-time in specified education programs at a fully accredited U.S. school.[10] Eligible schools/programs include medical schools (allopathic and osteopathic), physician assistant programs, dental schools, and advance practice nursing schools. Individuals must agree to complete their training (including residency training or required clinical hours, where applicable) in *primary care*.[11] For each year of scholarship support received (or

[4] PHSA Section 338G authorizes a fourth program that would provide a $25,000 loan to an NHSC member in exchange for two-years of service in a HPSA in private practice. This program has never been implemented.

[5] Some individuals may serve more than two years. For example, some may serve part-time in exchange for an extended service commitment and some may extend their commitment upon receiving a continuation award, which entails additional scholarship or loan repayment in exchange for an extended commitment. See U.S. Department of Health and Human Services, Health Resources and Services Administration, "National Health Service Corps," http://nhsc.hrsa.gov/.

[6] U.S. nationals are individuals born in certain U.S. territories.

[7] Physicians include individuals who have graduated from allopathic medical schools, which award Medical Doctor (MD) degrees and osteopathic medical schools which grant Doctors of Osteopathy (DO) degrees.

[8] For example, the federal loan repayment program permits mental and behavioral health providers and dental hygienists to participate. The state loan repayment program allows these additional providers and permits states to designate additional provider types as eligible based on the state's workforce needs.

[9] 42 U.S.C. §254l.

[10] Individuals who attend foreign medical schools are not eligible for the NHSC scholarship program.

[11] For physicians, this is defined as family medicine, general internal medicine, general pediatrics, obstetrics/gynecology, general psychiatry, and joint programs in a combination of these specialties (e.g., internal medicine/pediatrics). For nurses, this is defined as adult medicine, family medicine, geriatrics, primary care pediatrics, psychiatric-mental health, or women's health. For dentists, this is defined as general practice dentistry, advanced (continued...)

partial year after the first year), students must agree to provide an additional year of service in a HPSA. For example, if a full-time service scholar receives three years of scholarship support the scholar would owe three years of full-time service at an approved facility. The number of school years of NHSC scholarship support received by the scholar may not exceed four school years.[12] As such, through the scholarship program, the maximum required years of full time service at an approved facility is four years.

NHSC scholars begin their service commitment upon the completion of training, including any advance clinical training needed for licensure (e.g., primary care residency for physicians). Participants must also have obtained a professional license, certificate, or registration before beginning their service commitment. NHSC scholars must fulfill their service commitment on a full-time basis and are required to fulfill their service commitment in a HPSA of "greatest need." Each year HRSA determines the HPSA score indicative of "greatest need." For example, from October 1, 2016, through September 30, 2017, NHSC scholars must work at NHSC-approved service sites with a HPSA score of 17 or above for their discipline (e.g., a dental scholar is required to serve in an area with a dental HPSA score above 17).[13] Individuals participating in the federal loan repayment program may serve part-time and may serve in areas with lower HPSA scores, but scholars may not. At the end of their service commitment, scholars may apply for continuation awards through the loan repayment program if they still have educational debt remaining and are willing to continue service at an NHSC-approved facility.

Federal Loan Repayment Program

The NHSC Federal Loan Repayment Program is authorized in PHSA Sections 331(i) and 338B.[14] In addition to the list of providers who may participate in the scholarship program, dental hygienists and behavioral/mental health providers may also receive loan repayment.[15] Loan repayment recipients must have a license or certificate needed to practice and must be employed or have accepted an offer to be employed at an NHSC-approved work site. Loan repayment is available only for "qualifying educational debt," which means principal, interest, and related expenses of outstanding government and private student loans obtained for undergraduate or

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education in general dentistry, pediatric dentistry, and public heath dentistry.

[12] U.S. Department of Health and Human Services, Health Resources and Services Administration, *NHSC Scholarship Program, School Year 2017-2018 Application & Program Guidance,* p. 10, https://nhsc.hrsa.gov/downloads/spapplicationguide.pdf.

[13] Each year, the NHSC uses HPSA scores to determine where NHSC scholars will be placed. For example, from October 1, 2016, through September 30, 2017, NHSC scholars must work at NHSC-approved service sites with a HPSA score of 17 or above for their discipline. U.S. Department of Health and Human Services, Health Resources and Services Administration, *NHSC Scholarship Program, School Year 2017-2018 Application & Program Guidance,* https://nhsc.hrsa.gov/downloads/spapplicationguide.pdf. Severity of need is determined by a scoring process that the Secretary applies to each designated area. A high-need HPSA is defined as a HPSA score of 14 or above; the higher the score, the greater the need for an NHSC clinician. U.S. Department of Health and Human Services, Health Resources and Services Administration, *National Health Service Corps Loan Repayment Program, FY2017,* January 2017, pp. 16-17.

[14] 42 U.S.C. §254d(i), as amended, and 42 U.S.C. §254*l*-1, as amended, and respectively.

[15] A behavioral/mental health worker in the NHSC may be a licensed clinical social worker, licensed professional counselor, health service psychologist, marriage and family therapist, physician (e.g., a psychiatrist, including child and adolescent psychiatrists), nurse practitioner (i.e., a psychiatric nurse specialist), or physician assistant (e.g., mental health and psychiatry). See U.S. Department of Health and Human Services, Health Resources and Services Administration, *National Health Service Corps Loan Repayment Program, FY2017,* January 2017, pp. 10-17, https://nhsc.hrsa.gov/loanrepayment/lrpapplicationguidance.pdf.

graduate education for tuition, along with reasonable educational and living expenses.[16] Federal loan repayors have a two-year service commitment, which they may fulfill full-time for two years or part-time for four.

The amount of loan repayment received varies based on the HPSA score of the site where the loan repayor is employed. For full-time service at an approved site with a HPSA score of 14 or above, a loan repayor may receive amounts up to $50,000 for an initial two-year obligation.[17] Individuals serving at a site with a HPSA score of 13 or lower may receive up to $30,000 for an initial two years of service. Loan repayment recipients may apply for continuation awards if they have educational debt at the end of their two-year loan repayment commitment. Continuation awards are awarded in one-year intervals, and individuals may apply for and receive continuation awards as long as they have qualifying educational debt and remain employed at an NHSC-approved site.

Federal Students to Service (S2S) Loan Repayment Program

In 2012, HRSA used the authority in PHSA Section 338B[18] to establish a new program within the federal loan repayment program called the Students to Service (S2S) Loan Repayment Program. The S2S program provides assistance of up to $120,000 to medical students (allopathic and osteopathic) in their final year of medical school. In return, S2S program recipients must complete an approved primary care residency[19] and undertake their required NHSC service in a HPSA of the greatest need for at least three years (full-time) or six years (half-time).[20] S2S repayors may also complete a one-year fellowship in geriatrics after their primary care residency and before beginning their service commitment.[21]

Zika Loan Repayment Program

In 2016, HRSA made loan repayment awards through a new program funded by the Zika Response and Preparedness Act (P.L. 114-223).[22] This program provides up to $70,000 in loan repayment in exchange for a three-year service commitment at NHSC approved sites in Puerto Rico or other U.S. territories affected by Zika.[23] Health professionals eligible for the federal loan

[16] U.S. Department of Health and Human Services, Health Resources and Services Administration, *National Health Service Corps Loan Repayment Program, FY2017,* January 2017, p. 7, https://nhsc.hrsa.gov/loanrepayment/lrpapplicationguidance.pdf.

[17] Severity of need is determined by a scoring process that the Secretary applies to each designated area. A high-need HPSA is defined as a HPSA score of 14 or above; the higher the score, the greater the need for an NHSC clinician. U.S. Department of Health and Human Services, Health Resources and Services Administration, *National Health Service Corps Loan Repayment Program, FY2017,* January 2017, pp. 16-17.

[18] 42 U.S.C. §254*l*1(a)(2) requires the Secretary to establish an NHSC loan repayment program to recruit health professionals as needed.

[19] Students must complete a residency in family practice, general internal medicine, general pediatrics, general psychiatry, obstetrics-gynecology, internal medicine/family practice, or internal medicine/pediatrics.

[20] In FY2017, for the S2S Program, sites with HPSAs scores of 14 or above are determined to be of high-need. See U.S. Department of Health and Human Services, Health Resources and Services Administration, *National Health Service Corps, Students to Service Loan Repayment Program, FY2017,* https://nhsc.hrsa.gov/loanrepayment/studentstoserviceprogram/applicationguidance.pdf , p. 5.

[21] U.S. Department of Health and Human Services, Health Resources and Services Administration, *National Health Service Corps, Students to Service Loan Repayment Program, FY2017*, https://nhsc.hrsa.gov/loanrepayment/studentstoserviceprogram/applicationguidance.pdf , pp. 6-7.

[22] The Zika Response and Preparedness Act (P.L. 114-223) allocated $6 million for loan repayment awards.

[23] For information on awards made under this program, see U.S. Department of Health and Human Services, Health (continued...)

repayment program are also eligible for this program. Licensed professionals in medical specialties and allied health fields who may be able to provide Zika-related care (e.g., physical therapy and certain medical specialties) are also eligible.[24]

State Loan Repayment Program

The state loan repayment program is authorized in PHSA Section 338I.[25] The program is similar to the Federal Loan Repayment Program, except that (1) it is a matching grant between the state and the NHSC, (2) states may choose to expand or contract the types of clinicians who are eligible to participate in their program, and (3) states may require more than two years of service in exchange for loan repayment. For example, states have the option of addressing their unique workforce needs by making additional types of professionals eligible, such as registered nurses and pharmacists, although neither of these provider types are eligible to participate in the federal loan repayment program. State loan repayors must provide care in a HPSA in exchange for their award, but states determine the approved service sites for their programs. State loan repayment participants must also serve two years as an initial commitment, but states may require longer minimum service commitments or may vary the service commitment length by provider type. State loan repayment recipients may fulfill their service commitments on a full- or part-time basis.

NHSC Funding

The amount of total funds that the NHSC receives determines the number of awards that the program can make. Historically, the NHSC had been exclusively funded as part of HRSA's discretionary appropriation. However, that is no longer the case, as the program is now funded by the mandatory Community Health Center Fund (CHCF). The ACA created the CHCF and provided mandatory funding for it over a five-year period (FY2011-FY2015). [26] The fund was intended to supplement the NHSC budget; however, since FY2012 it has made up the entirety of the program's funding. The CHCF was initially set to expire at the end of FY2015; however, it was extended for two years (FY2016 and FY2017) as part of the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA, P.L. 114-10, CHIP is the State Children's Health Insurance Program).[27] At the start of FY2018, no mandatory funds had been appropriated for the

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Resources and Services Administration, "HRSA Awards $7M to Workforce Programs to Combat Zika," press release, July 26, 2017, https://www.hrsa.gov/about/news/press-releases/hrsa-awards-seven-million-to-workforce-programs.html.

[24] The full list of eligible professions for this program is available at U.S. Department of Health and Human Services, Health Resources and Services Administration, "NHSC Zika Loan Repayment Program," https://nhsc.hrsa.gov/loanrepayment/zikainitiative.html.

[25] PHSA Section 338I(a)(2) (42 U.S.C. §254q–1) authorizes the Secretary to make grants to states for the NHSC State Loan Repayment program provided that a state agency agrees to administer the program. Within 42 C.F.R. §62.54, the state agencies administering the State Loan Repayment Program must comply with regulations to ensure that their health workforce meets requirements for training, placement in medically underserved areas, and comparability to the NHSC Federal Loan Repayment Program, among other things. For program guidance, see HHS, *State Loan Repayment Contacts*, http://nhsc.hrsa.gov/loanrepayment/stateloanrepaymentprogram/contacts.html.

[26] The NHSC also received two years of funding in FY2009 and FY2010 as part of the American Recovery and Reinvestment Act of 2009. For more information, see CRS Report R40181, *Selected Health Funding in the American Recovery and Reinvestment Act of 2009*.

[27] CRS Report R43962, *The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA; P.L. 114-10)*. CHIP is the State Children's Health Insurance Program (CHIP).

NHSC; however, a temporary extension (P.L. 115-96) ultimately provided mandatory funding for the first two quarters of FY2018, and the Bipartisan Budget Act of 2018 (BBA 2018, P.L. 115-123) later provided full-year funding for FY2018 and FY2019. Amounts provided by the CHCF have also been reduced in some years as part of the mandatory spending sequester (pursuant to the Balanced Budget and Emergency Deficit Control Act of 1985, as amended).[28] The program does not currently receive discretionary appropriations; consequently, funding for this program was not included in any of the continuing resolutions that have provided funding for FY2018.

Table 1 presents funding provided for the program between FY2011 and FY2019—though amounts for FY2018 and FY2019 may be subject to change, should further appropriations action occur for either fiscal year. The table also shows the percentage of funding that comes from discretionary and mandatory sources. For FY2019, the table shows mandatory amounts already appropriated for the program, but readers should note that the FY2019 President's budget requested providing discretionary, rather than mandatory, funding for the program in that year.

Table 1. National Health Service Corps (NHSC) Funding for FY2011-FY2019

(Dollars in millions)

Funding by Fiscal Year	2011	2012	2013	2014	2015	2016	2017	2018	2019
Discretionary	$25[a]	—	—	—	—	—	—	—	—
Mandatory	$290	$295	$300[c]	$305[d]	$310[e]	$310[f]	$316[g]	$310[h]	$310[b]
Final	**$315**	**$295**	**$285**	**$283**	**$287**	**$310**	**$289**	TBD	TBD
% Mandatory	92%	100%	100%	100%	100%	100%	100%	TBD	TBD

Sources: Table prepared by CRS based on information from U.S. Department of Health and Human Services, Health Resources and Services Administration, *Justification of Estimations for Appropriations Committees,* Rockville, MD, *volumes* FY2013 through FY2018.

Notes: Abbreviations in the table notes: ACA—Patient Protection and Affordable Care Act of 2010 (P.L. 111-148, as amended); ARRA—American Recovery and Reinvestment Act of 2009 (P.L. 111-5); BBA 2018—Bipartisan Budget Act of 2018 (P.L. 115-123); BBEDCA—Balanced Budget and Emergency Deficit Control Act of 1985(P.L. 112-25); CHCF—Community Health Center Fund; NHSC—National Health Service Corps; MACRA—Medicare Access and CHIP Reauthorization Act of 2015 (P.L. 114-10); and Office of Management and Budget (OMB); TBD—to be determined. Funding levels for FY2011-FY2017 are as enacted or adjusted for sequestration, where applicable. Discretionary FY2018 appropriations have been provided under a series of continuing resolutions (CRs) that extended FY2017 appropriation levels into FY2018, minus an across the board reduction of 0.6791%. The FY2018 CRs have not included any discretionary appropriations for the NHSC, but final appropriations have not yet been enacted.

a. ARRA represented a source of discretionary funds that were appropriated to the NHSC in FY2009, but those funds are not considered to be an FY2011 appropriation. Still, they were reflected in the FY2011 budget. ARRA contributed $57 million (not shown in the table) for federal loan repayments. See *Justification of Estimations for Appropriations Committees,* Rockville, MD, *vol.* FY2013, p. 76.

[28] The Balanced Budget and Emergency Deficit Control Act of 1985 was amended by the Budget Control Act of 2011 (BCA, P.L. 112-25) to provide a budget process mechanism that would reduce mandatory spending and further reduce discretionary spending over an extended period. For mandatory spending, the reductions are to occur through "sequestration" in each fiscal year from FY2013 through FY2027. As originally enacted in the BCA, mandatory sequestration was scheduled to run through FY2021, but this period has subsequently been incrementally extended by P.L. 113-67, P.L. 113-82, P.L. 114-74, and P.L. 115-123. CHCF funds have been subject to sequestration in years in which there was a CHCF appropriation in place at the time the sequester was calculated by the Office of Management and Budget (e.g., CHCF funds were sequestered in FY2013, FY2014, FY2015 and FY2017, but were not sequestered in FY2016, FY2018, or FY2019).

b. The FY2019 President's budget requested $310 million in discretionary funding for the NHSC. However, three days before the FY2019 budget was released, P.L. 115-123 appropriated $310 million in mandatory funding for the NHSC in FY2019. The President's budget requests that NHSC be funded by discretionary spending, instead of mandatory spending, in FY2019. See Letter from Mick Mulvaney, Director Office of Management and Budget, to The Honorable Paul D. Ryan, Speaker of the House of Representatives, February 12, 2018, https://www.whitehouse.gov/wp-content/uploads/2018/02/Addendum-to-the-FY-2019-Budget.pdf.

c. ACA appropriated $300 million in mandatory funding for the NHSC to be used in FY2013. However, this amount was subject to the 5.1% mandatory spending sequestration, resulting in a total of $284.7 million for FY2013. The sequestration order was issued pursuant to the BBEDCA, as amended.

d. ACA appropriated $305 million in mandatory funding for the NHSC to be used in FY2014. However, this amount was subject to the 7.2% mandatory spending sequestration, resulting in $283 million for FY2014.

e. ACA appropriated $310 million in mandatory funding for the NHSC to be used in FY2015. However, this amount was subject to the 7.3% mandatory spending sequestration, resulting in $287 million for FY2015.

f. MACRA extended mandatory funding for the NHSC, as part of the CHCF, for FY2016 and FY2017, at $310 million in mandatory funding each fiscal year. However, this funding extension was enacted after the mandatory spending sequester for FY2016 was calculated by OMB. As a consequence, OMB did not include the FY2016 funding in the sequester calculation, and thus no sequester was ordered for the NHSC funding in FY2016. (See *OMB Report to Congress on the Joint Committee Reductions for Fiscal Year 2016*, February 2, 2015, available at https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/legislative_reports/sequestration/2016_jc_sequestration_report_speaker.pdf.). P.L. 114-223 provided $6 million in supplemental NHSC funding for Zika response. See discussion in CRS Report R44460, *Zika Response Funding: Request and Congressional Action*.

g. MACRA appropriated $310 million in mandatory funding for the NHSC to be used in FY2017. However, this amount is subject to the 6.9% mandatory spending sequestration, resulting in $289 million.

h. BBA 2018 appropriated $310 million in mandatory funding for the NHSC for each of FY2018 and FY2019. These funds were appropriated after OMB had calculated the mandatory amounts to be sequestered in these fiscal years. As a result, no sequestration was applied to these mandatory NHSC funds.

Program Size

NHSC program size is measured in three ways: (1) funding, discussed above; (2) recruitment, which is the number of awards in different categories; and (3) field strength, which is the number of NHSC clinicians currently fulfilling their service commitments. Recruitment in a given year is generally smaller than the program's field strength because the latter includes loan repayors who are currently fulfilling their service commitments, including those who are fulfilling a second year of their service commitment, and individuals who received scholarships or S2S agreement in earlier years who have completed their required training and are currently fulfilling their service commitments. The section below discusses recruitment and field strength.

Recruitment

From FY2011 through FY2016, the most recent year of final data available, the NHSC offered more than 33,500 loan repayment agreements and scholarship awards to individuals who have agreed to serve for a minimum of two years in a HPSA. In FY2011, the beginning of the ACA's CHCF, the NHSC received its largest appropriation to date, which increased the number of awards that the NHSC was able to make. The number of awards made has varied since FY2011, with FY2016 representing an increased number of awards over prior years.[29] **Table 2** shows

[29] In FY2011, the NHSC received a total of $315 million in appropriated funds, representing a 121.8% increase over the previous year (from $141 million in FY2010 to $315 million in FY2011) (see "NHSC Funding" in this report).

NHSC clinician recruitment activity for the NHSC's active programs, by type of award, from FY2011 through FY2016.

Table 2. National Health Service Corps (NHSC) Recruitment, FY2011- FY2016

By Number of Awards or Agreements (Except for States, by Number of Participants)

Program	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016
Federal Loan Repayment Agreements (New)	4,113	2,342	2,106	2,775	2,934	3,079
Federal Loan Repayment Agreements (Continuing)	1,305	1,925	2,399	2,105	1,841	2,111
Total Federal Loan Repayment (New & Continuing)	***5,418***	***4,267***	***4,505***	***4,880***	***4,775***	***5,190***
Students to Service Loan Repayment Agreements		***69***	***78***	***79***	***96***	***92***
Scholarship Awards (New)	253	212	180	190	196	205
Scholarship Awards (Continuing)	9	10	16	7	11	8
Total Scholarship Awards (New & Continuing)	***262***	***222***	***196***	***197***	***207***	***213***
State Loan Repayment Agreements (Number of Participants)	***394***	***281***	***447***	***464***	***620***	***634***
Total Awards (all types)	***6,074***	***4,839***	***5,226***	***5,620***	***5,698***	***6,129***

Source: Prepared by CRS, based on data in U.S. Department of Health and Human Services, Health Resources and Services Administration, *Justification of Estimations for Appropriations Committees, FY2018*, Rockville, MD, pp. 74-75.

Field Strength

The number of awards the NHSC makes at any point in time is only one component of program size, as not all awardees are currently serving as NHSC providers. Specifically, NHSC scholars and S2S program participants are still completing their training. As such, the NHSC also measures its field strength, which is the number of NHSC providers who are fulfilling a service obligation in a HPSA in a given year.[30] In FY2016, the most recent year in which data are available, total NHSC field strength was 10,493.[31] Field strength is a measure of both the NHSC appropriation, which affects the number of awards that can be made, and the relative balance between scholarships and loan repayment, both in the current fiscal year and in the past.[32] The NHSC field strength has increased in recent years as the number of awards made has increased (see **Figure 1)**. As of September 2017, HRSA data indicate that there were 8,885 total

[30] National Advisory Council on the National Health Service Corps, *Meeting Minutes Summary*, HHS, Rockville, MD, 2012, p. 2, https://nhsc.hrsa.gov/corpsexperience/aboutus/nationaladvisorycouncil/meetingsummaries/011912minutes.pdf.

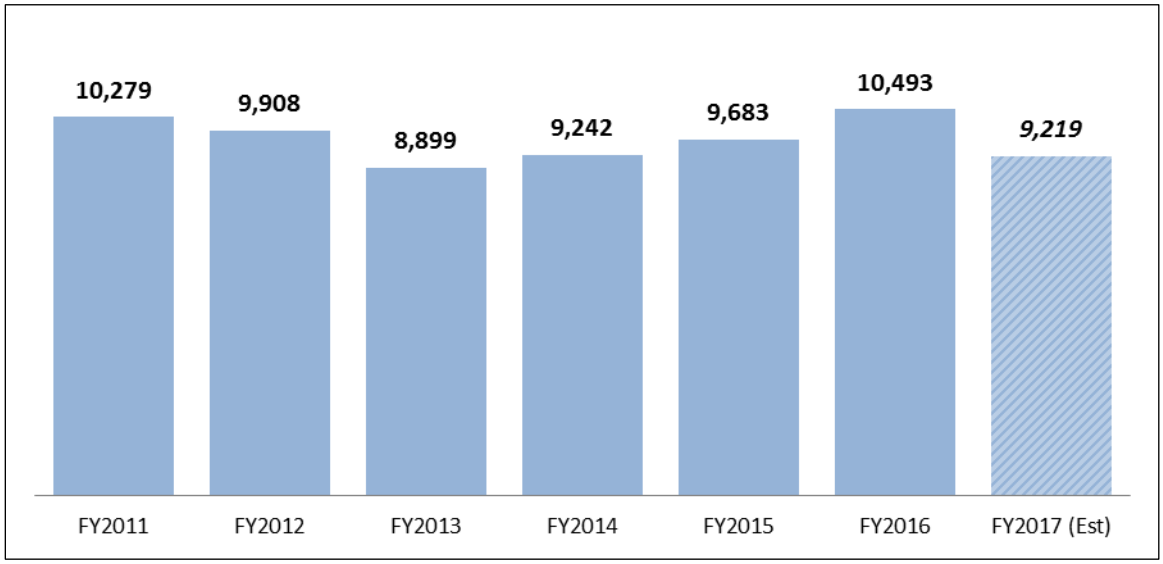
[31] U. S. Department of Health and Human Services, Health Resources and Services Administration, *Justification of Estimations for Appropriations Committees, FY2018*, Rockville, MD. In addition to currently obligated NHSC clinicians, some NHSC alumni may remain as providers in a HPSA. These individuals are not included in NHSC field strength data.

[32] See section on "NHSC Funding" for a detailed discussion of NHSC funding sources.

providers.[33] The majority of these individuals (8,285) were loan repayors, which reflects the NHSC's prioritization of clinicians who will undertake their service commitment immediately in HPSAs.[34] In contrast, HRSA makes scholarship awards in an earlier year, so the funding investment is not realized for several years, as the scholar completes his or her schooling and required training.

Despite increased field strength, more sites are eligible to receive an NHSC provider than there are NHSC providers. Specifically, in September 2017, there were 4,596 open NHSC positions that could not be filled because the NHSC field strength was not sufficient to meet the needs of every NHSC site.[35]

Figure 1. Trends in National Health Service Corps (NHSC) Field Strength,
FY2011-FY2017 (Est.)



Source: Prepared by CRS, based on data in U.S. Department of Health and Human Services, Health Resources and Services Administration, *Justification of Estimations for Appropriations Committees, FY2018*, Rockville, MD, p. 75.

Note: NHSC field strength is the number of NHSC clinicians or providers who are fulfilling a service obligation in a Health Professional Shortage Area (HPSA) in exchange for a scholarship or loan repayment agreement. FY2017 data are estimated.

Types of NHSC Providers

The NHSC is made up of an increasingly diverse set of health professionals. The composition of the NHSC has changed over time. In FY2009, physicians accounted for nearly 35% of providers and were the largest group of providers in the NHSC. In contrast, in FY2016, they made up 21%,

[33] This number is according to HRSA data on September 15, 2017, which is less than HRSA estimated would be serving in FY2017. These data are updated daily so additional providers may begin their service commitment before the end of FY2017.

[34] HRSA data obtained on September 15, 2017, at https://datawarehouse.hrsa.gov/Topics/Nhsc.aspx.

[35] Ibid.

and behavioral/mental health providers are now largest provider types.[36] Physicians and nurse practitioners are the next largest groups of providers.

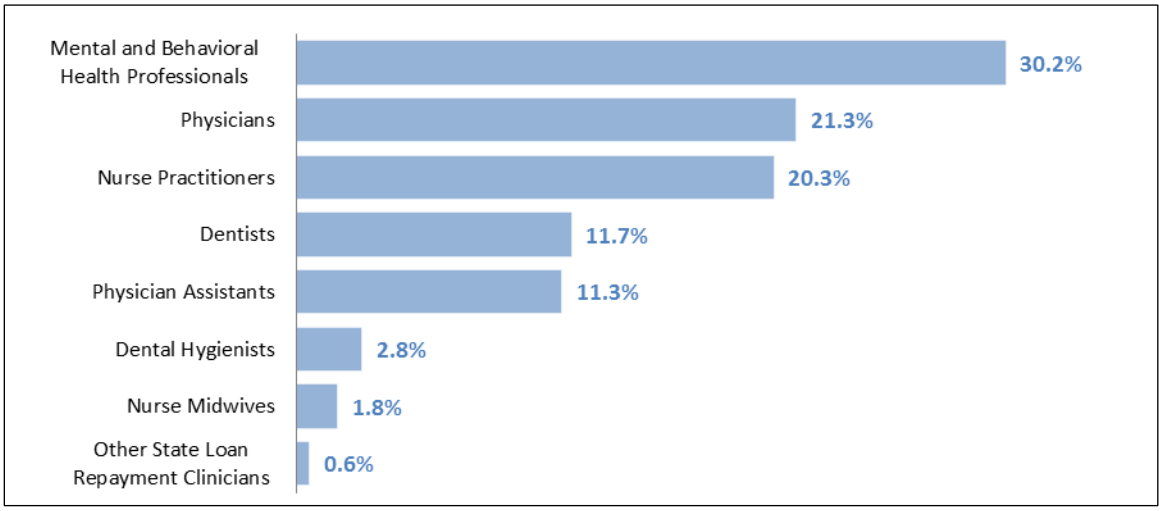
In FY2016, the most recent year for which complete data are available, the following three professional groups made up 74% of the NHSC:

- mental and behavioral health providers (30%),[37]
- allopathic and osteopathic physicians (21%), and
- nurse practitioners, including nurse midwives (22%).[38]

Figure 2 shows the NHSC's workforce by provider type in FY2016, the most recent year for which complete data are available.

Figure 2. National Health Service Corps Field Strength, by Discipline

September 2016



Source: Prepared by CRS, based on data in U.S. Department of Health and Human Services, Health Resources and Services Administration, *Justification of Estimations for Appropriations Committees, FY2018*, Rockville, MD, p. 70.

Notes: Total providers=10,493. Physicians include both allopathic physicians who hold a Doctor of Medicine (MD) degree and osteopathic physicians who hold a Doctor of Osteopathic Medicine (DO) degree. "Other State Loan Repayment Clinicians" may include registered nurses and pharmacists, among others.

Legislative Proposals to Expand NHSC Provider Eligibility

Some individuals and professional groups have advocated for making additional provider types eligible for the NHSC. For example, legislation in the 115th Congress (H.R. 1378) would make chiropractors eligible to participate in the federal scholarship and loan repayment programs, and H.R. 1639 and S. 619 would make physical therapists eligible for the federal loan repayment

[36] U.S. Department of Health and Human Services, Health Resources and Services Administration, *Justification of Estimates for Appropriations Committees, FY2011*, p. 69.

[37] This number is an underestimate because psychiatrists are counted as physicians and advanced practice psychiatric nurses are counted as nurse practitioners.

[38] U.S. Department of Health and Human Services, Health Resources and Services Administration, *Justification of Estimations for Appropriations Committees, FY2018,* Rockville, MD, p. 70. Nurse Practitioners make up 20% of the NHSC's workforce; 2% of these are nurse-midwives.

program. NHSC awards are made competitively and are constrained by available funds. The number of applicants applying for awards exceeds the funding available. Similarly, the number of sites eligible for NHSC providers exceeds the program's field strength. As such, adding new provider types may increase competition and may increase the number of sites and positions that seek NHSC providers but are unable to obtain one. Moreover, adding new provider types does not guarantee that clinicians in newly eligible fields would receive awards because, under current law, there are no quotas for specific numbers of providers by discipline. Instead, awards are made competitively, with scholarships generally awarded based on participant characteristics (e.g., the participant's commitment to primary care practice and the likelihood of remaining in a shortage area after the NHSC service commitment has ended).[39] Loan repayment awards are made based on the HPSA score of the site and on the loan repayment program participant's characteristics.[40]

Administrative Authority to Expand NHSC Provider Eligibility

Although legislation has been introduced to modify eligible disciplines, the HHS Secretary has some authority to add disciplines without new laws being enacted. For example, exchanges among the Secretary of HHS and the House and Senate Appropriations Committees seem to suggest that Congress recognizes the Secretary's authority to include additional disciplines in the NHSC without congressional action. For example, in 2012, the Senate Appropriations Committee urged the Secretary to offer loan repayments to pharmacists and chiropractors through the NHSC.[41]

Despite what appeared at that time to be congressional support for administrative action, in 2013, the Secretary declined to include pharmacists on the list of eligible NHSC providers. The Secretary's response to this request from the Senate Appropriations Committee was based on an interpretation that pharmacy and chiropractor services would be outside of the core intent of the NHSC to provide "primary health services."[42]

In 2015, the Senate Appropriations Committee again raised the issue of the Secretary's authority to add pharmacists, which are sometimes part of primary care teams; however, these providers remain ineligible for loan repayment. Similar conversations have occurred between HHS and the House Appropriations Committee regarding optometry.[43]

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[39] U.S. Department of Health and Human Services, Health Resources and Services Administration, *NHSC Scholarship Program, School Year 2017-2018 Application & Program Guidance*, https://nhsc.hrsa.gov/downloads/spapplicationguide.pdf, pp.7-9.

[40] U.S. Department of Health and Human Services, Health Resources and Services Administration, *National Health Service Corps Loan Repayment Program*, https://nhsc.hrsa.gov/loanrepayment/lrpapplicationguidance.pdf, p. 17.

[41] U.S. Congress, Senate Committee on Appropriations, Subcommittee on Departments of Labor, Health and Human Services, and Education, and Related Agencies, *Departments Labor, Health and Human Services, and Education, and Related Agencies Appropriation Bill, 2012, To Accompany S. 1599*, 112th Cong., 1st sess., September 22, 2011, 112-84 (Washington: GPO, 2012), p. 40.

[42] Primary health services are defined as health services regarding family medicine, internal medicine, pediatrics, obstetrics and gynecology, dentistry, or mental health that are provided by physicians or other health professionals. HHS, HRSA, *Justification of Estimates for Appropriations Committees, FY2013*, p. 371, http://www.hrsa.gov/about/budget/budgetjustification2013.pdf. In P.L. 107-251, Health Care Safety Net Amendments of 2001 (enacted on October 26, 2002), Congress required the Secretary to implement a "Chiropractic/Pharmacist Demonstration Project" under Section 338B of the PHSA (or the NHSC's Federal Loan Repayment Program). Following a general notice (68 *Federal Register* 112; 34981; June 11, 2003), the Secretary implemented the program but discontinued it after initial demonstrations were completed. Source: CRS email communication HHS, Office of Legislative Affairs, August 2016.

[43] H.Rept. 114-699, Departments of Labor, Health and Human Services, and Education, and Related Agencies Appropriations Bill, 2017, to accompany H.R. 5926, pp. 28.

In each of these instances, HHS has not agreed to expand the program's eligibility out of concern that doing so would shift the program away from its traditional focus of providing primary care to underserved populations. HHS also emphasized that the program is currently competitive and that adding new disciplines as eligible could redirect NHSC funds away from already identified clinical shortage areas and add new ones. [44] Another concern is that adding new providers may limit the total number of individuals served by the NHSC because the new provider types (e.g., optometrists and chiropractors) serve a narrower subset of the population than do primary care providers.

Despite debates on expanding the clinicians eligible for the NHSC, Congress has, at times, clarified the range of eligible providers. For example, the 21st Century Cures Act, enacted in 2016, clarified that adolescent and child psychiatrists are eligible to participate in the federal loan repayment program.[45] This law, however, did not expand the list of NHSC providers. Instead, it sought to clarify that, within the existing group of NHSC-eligible psychiatrists, those who specialize in child and adolescent psychiatry are eligible to participate in the NHSC.

NHSC Provider Locations

NHSC providers may serve at a number of facility types that generally focus on providing outpatient primary care to patients regardless of their ability to pay. In addition, some NHSC provider sites generally focus on primary care, such as community mental health centers, which are more targeted to behavioral health care.[46] As mentioned, these facilities must be located in HPSAs. NHSC eligible sites include[47]

- community mental health centers,
- correctional facilities,
- critical access hospitals,
- facilities funded by the Indian Health Service (including those operated by Indian Tribes, Tribal Organizations, and Urban Indian Organizations),
- federal health centers (i.e., Federally Qualified Health Centers [FQHCs]),
- FQHC look-alikes,
- free clinics,
- rural health clinics, and

[44] HHS, HRSA, *Justification of Estimates for Appropriations Committees, FY2017*, p. 427, http://www.hrsa.gov/about/budget/budgetjustification2017.pdf. In the 2018 Budget Justification, HRSA also declined to broaden the eligible disciplines for the NHSC. See Department of Health and Human Services, Health Resources and Services Administration, *Justification of Estimations for Appropriations Committees, FY2018*, Rockville, MD, pp. 331.

[45] See discussion of Sec. 9023 in CRS Report R44718, *The Helping Families in Mental Health Crisis Reform Act of 2016 (Division B of P.L. 114-255)*.

[46] In the current Congress, legislation has been introduced to expand eligible sites primarily in response to concerns about the need for more providers to treat individuals with opioid addiction. For example, S. 1453 would add substance use disorder treatment facilities—which provide both outpatient and inpatient, including medication-assisted treatment—as eligible sites for NHSC providers to fulfill their service commitment.

[47] Under limited circumstances, NHSC providers may also fulfill their service commitment by working in a private practice in a HPSA. For more information about these facility types, see CRS Report R43937, *Federal Health Centers: An Overview* for description of health centers and Appendix A for description of other NHSC eligible facility types. Indian Health Service facilities are also described in CRS Report R43330, *The Indian Health Service (IHS): An Overview*.

- school-based health centers.

NHSC providers can be placed at facilities operated by not-for-profit organizations and by government entities (including state, local, tribal, and federally operated facilities). In addition, HRSA requires that NHSC sites are part of a system of care (e.g., have after-hours arrangements for patient care); have a documented record of sound fiscal management; have a history of using NHSC providers appropriately and efficiently; accept beneficiaries from the Medicare, Medicaid, and CHIP; have a sliding scale discount schedule; and have general community support for assigning NHSC providers to the facility.[48]

More than half of all NHSC providers serve at federally qualified health centers (FQHCs), which provide outpatient—generally primary and behavioral health care—to disadvantaged populations regardless of their ability to pay (see **Figure 3**).[49] NHSC providers also increasingly provide care at facilities funded by the Indian Health Service, including federal, tribal, and urban Indian health facilities. As of August 2017, 492 (5.4%) providers were fulfilling their service commitment at IHS-funded facilities; an increase from the 421 providers who were placed at IHS facilities as of December 2015.[50] As mentioned, NHSC providers generally fulfill their service commitment in outpatient settings. However, some may serve at IHS-funded hospitals, and in recent years, some have fulfilled part of their service commitment (up to 24 hours per week) at critical access hospitals (CAHs), which are small hospitals located in rural areas. As of August 2017, 45 NHSC providers were serving at CAHs. HRSA requires that these providers split their time between inpatient services at the CAH (up to 24 hours per week) and outpatient services at CAH affiliated-outpatient clinics (not less than 16 hours per week).[51]

[48] U.S. Department of Health and Human Services, Health Resources and Services Administration, *National Health Service Corps Report to Congress For the Year 2016*, submitted to the Committee on Health, Education, Labor and Pensions, U.S. Senate and The Committee on Energy and Commerce, U.S. House of Representatives, Rockville, MD, 2017.

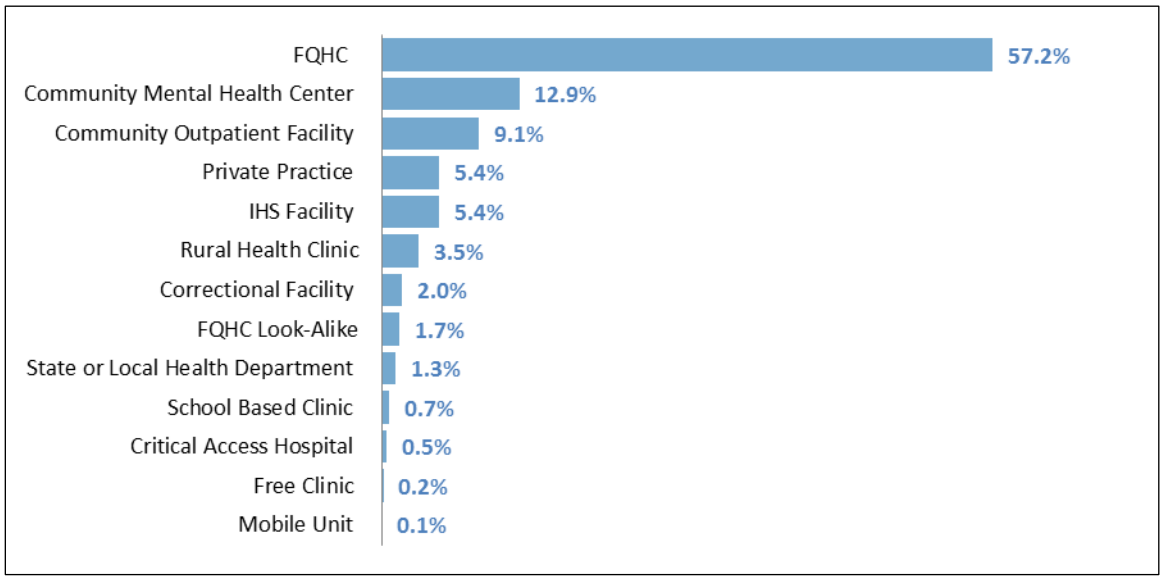
[49] For more information, see CRS Report R43937, *Federal Health Centers: An Overview*.

[50] Email from Office of Legislation, Health Resources and Services Administration, Department of Health and Human Services, August 23, 2017 and U.S. Department of Health and Human Services, Indian Health Service, *Justification of Estimations for Appropriations Committees*, FY2017, Rockville, MD, p. 149.

[51] Ibid.

Figure 3. Facility Types Where NHSC Providers Are Placed

(August 2017)



Source: Email from Office of Legislation, Health Resources and Services Administration, Department of Health and Human Services, August 23, 2017.

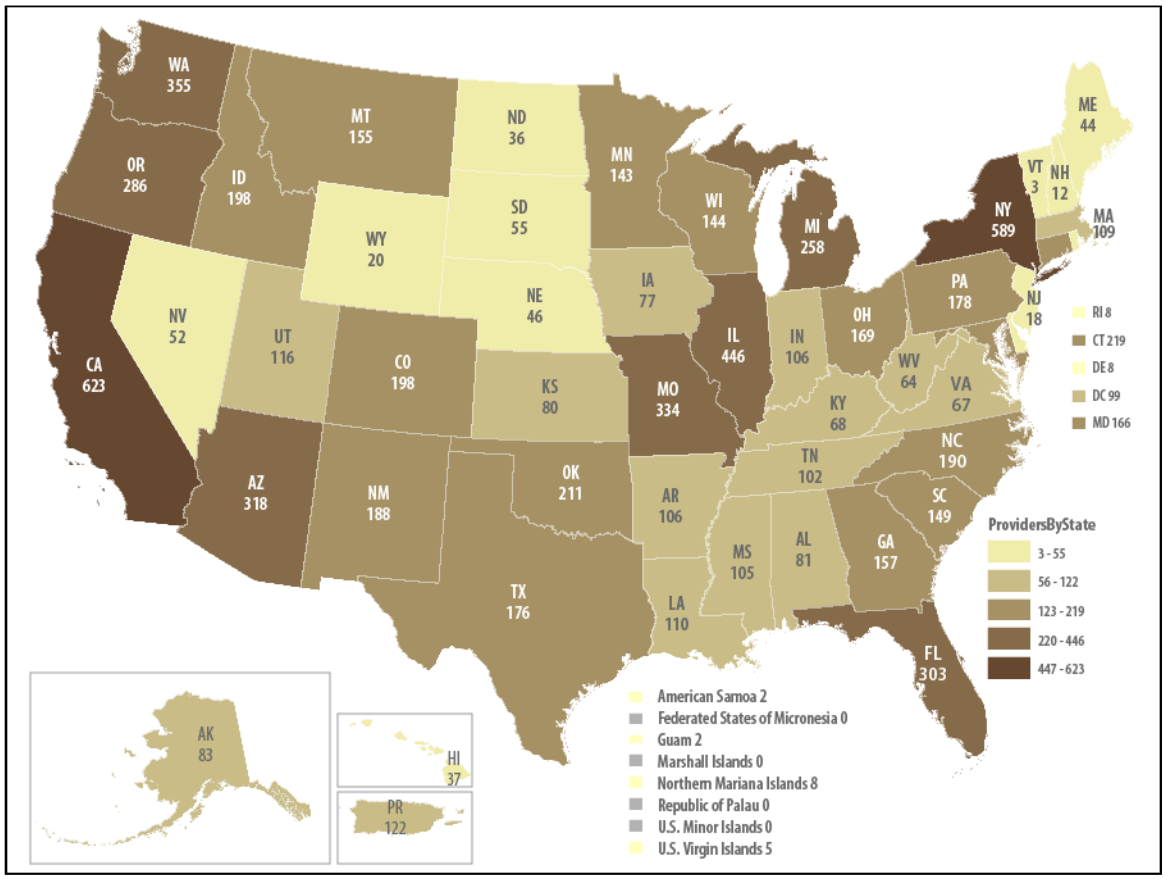
Notes: FQHC=Federally Qualified Health Center and IHS=Indian Health Service.

NHSC providers are located at HPSAs throughout the United States and its territories (see **Figure 4**). According to 2016 data, 23% of all NHSC providers served in rural areas.[52]

[52] U.S. Department of Health and Human Services, Health Resources and Services Administration, *National Health Service Corps Report to Congress For the Year 2016*, submitted to the Committee on Health, Education, Labor and Pensions, U.S. Senate and the Committee on Energy and Commerce, U.S. House of Representatives, Rockville, MD, 2017. According to the U.S. Census Bureau, 19.3% of the U.S. population live in rural areas; see United States Census Bureau, "New Census Data Show Differences Between Urban and Rural Populations," press release, December 8, 2016, https://www.census.gov/newsroom/press-releases/2016/cb16-210.html.

Figure 4. NHSC Provider Locations

(August 2017)



Source: CRS analysis of HRSA data at https://datawarehouse.hrsa.gov/topics/nhsc.aspx.

Provider Retention

The NHSC collects limited data on whether NHSC providers remain in HPSAs after fulfilling their service commitments. Available data indicate that less than half (43%) remain at their service site, and nearly 80% practice in a HPSA one year after their service commitment has ended.[53] An FY2012 study found that more than half remain in a HPSA 10 years after completing their service. These data are similar to what HRSA found in an FY2000 evaluation of the program.

[53] Data in this paragraph are drawn from U.S. Department of Health and Human Services, Health Resources and Services Administration, *National Health Service Corps Report to Congress For the Year 2016*, submitted to the Committee on Health, Education, Labor and Pensions, U.S. Senate and the Committee on Energy and Commerce, U.S. House of Representatives, Rockville, MD, 2017.

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