



*U.S. Department of Health and Human Services*

**NATIONAL HEALTH SERVICE CORPS  
REPORT TO CONGRESS  
FOR THE YEAR 2018**

**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**

## Executive Summary

The Report to Congress for 2018 details the program accomplishments of the National Health Service Corps (NHSC)<sup>1</sup>, which is charged with helping communities within Health Professional Shortage Areas (HPSAs) of greatest need by providing health care services through the recruitment and retention of primary care health professionals. The Report:

- provides updates on HPSA information;
- defines the need for primary care services through requests for recruitment and retention assistance from underserved communities;
- shows the current NHSC field strength<sup>2</sup> and the projection for next year;
- explains recruitment efforts for the NHSC Scholarship and Loan Repayment Programs;
- provides estimates on the number of patients seen by NHSC clinicians;
- details the most recent short-term and long-term retention rates of NHSC clinicians who have fulfilled the service obligation and continue to serve the underserved; and
- describes the evaluation process to determine compliance with section 333(a)(1)(D) of the Public Health Service Act for inclusion on the Health Workforce Connector (formerly NHSC Jobs Center).

Significant findings in the report include the following:

- NHSC and many federal and state workforce programs use HPSA designations for resource allocation. As of September 30, 2018, the following types and number of HPSAs were identified:
  - Primary Care: 6,815
  - Dental Health: 5,632
  - Mental Health: 4,929
- The NHSC field strength in fiscal year (FY) 2018 was 10,939. NHSC clinicians served in urban, rural, and frontier communities in all 50 states, the District of Columbia, the Commonwealth of Puerto Rico, the United States Virgin Islands, and the Pacific Basin.<sup>3</sup>
- In FY 2018, NHSC clinicians provided care to nearly 11.5 million people. Over 62 percent of NHSC clinicians served in health centers supported by Health Resources and Services Administration (HRSA) grants; the remainder provided patient care services in rural health clinics, group or private practices, hospital-based outpatient clinics, and similar sites not supported by HRSA grants located in HPSAs.

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<sup>1</sup> National Health Service Corps, NHSC, and Corps are used interchangeably throughout this document.

<sup>2</sup> “NHSC field strength,” as this term is used in this report, includes clinicians recruited through the NHSC Loan Repayment Program, NHSC Scholarship Program, NHSC Students-to-Service Loan Repayment Program, and the State Loan Repayment Program.

<sup>3</sup> Pacific Basin includes American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, the Commonwealth of the Northern Mariana Islands, and the Republic of Palau.

- Approximately 35 percent of NHSC placements in FY 2018 were in facilities that served rural areas.<sup>4</sup>
- The discipline mix of the NHSC field strength reflects HRSA’s efforts to respond to the demand for services in underserved communities and commitment to an interdisciplinary approach to patient care.
- In FY 2018, NHSC made new and continuation awards including 229 scholarships, 5,646 loan repayments, and 162 Student to Service loan repayments. These awards serve as vital recruitment tools for underserved communities in need of primary care, oral health, and behavioral and mental health services.
- In FY 2018, NHSC received \$310 million through the Bipartisan Budget Act of 2018 that funded the individual awards listed above. NHSC also initiated a new State Loan Repayment Program grant competition, resulting in 40 states and 1 territory receiving grant awards and participating in the State Loan Repayment Program for the next 5 years.

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<sup>4</sup> NHSC uses the Federal Office of Rural Health Policy definition of rural for identifying NHSC-approved sites that are in rural areas. See [http://www.hrsa.gov/ruralhealth/policy/definition\\_of\\_rural.html](http://www.hrsa.gov/ruralhealth/policy/definition_of_rural.html).



# National Health Service Corps Report to Congress for the Year 2018

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## Acronym List

BCRS	Bureau of Clinician Recruitment and Service
BHW	Bureau of Health Workforce
CAH	Critical Access Hospital
FQHC	Federally Qualified Health Center
FY	Fiscal Year
HPSA	Health Professional Shortage Area
HRSA	Health Resources and Services Administration
IHS	Indian Health Service
ITU	IHS, Tribal and Urban Indian Health Programs
LRP	Loan Repayment Program
NHSC	National Health Service Corps
PHS	Public Health Service
S2S LRP	Students to Service Loan Repayment Program
SLRP	State Loan Repayment Program
SP	Scholarship Program

# I. Legislative Language

Section 336A of the Public Health Service (PHS) Act [42 USC § 254i] sets out the requirements for this Report to Congress:

*“The Secretary shall submit an annual report to Congress, and shall include in such report with respect to the previous calendar year:<sup>5</sup>*

- (1) the number, identity, and priority of all health professional shortage areas designated in such year and the number of health professional shortage areas which the Secretary estimates will be designated in the subsequent year;*
- (2) the number of site applications filed under section 333 of this title in such year for assignment of Corps members and the action taken on each such application;*
- (3) the number and types of Corps members assigned in such year to health professional shortage areas, the number and types of additional Corps members which the Secretary estimates will be assigned to such areas in the subsequent year, and the need for additional members for the Corps;*
- (4) the recruitment efforts engaged in for the Corps in such year and the number of qualified individuals who applied for service in the Corps in such year;*
- (5) the number of patients seen and the number of patient visits recorded during such year with respect to each health professional shortage area to which a Corps member was assigned during such year;*
- (6) the number of Corps members who elected, and the number of Corps members who did not elect, to continue to provide health services in health professional shortage areas after termination of their service in the Corps and the reasons (as reported to the Secretary) of members who did not elect for not making such election;*
- (7) the results of evaluations and determinations made under section 333(a)(1)(D) of this title during such year; and*
- (8) the amount charged during such year for health services provided by Corps members, the amount which was collected in such year by entities in accordance with section 334 of this title, and the amount which was paid to the Secretary in such year under such agreements.”<sup>6</sup>*

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<sup>5</sup> Data provided in this report are fiscal year data reported in accordance with how Congress appropriates funds to the National Health Service Corps.

<sup>6</sup> The Health Care Safety Net Amendments of 2002 amended Section 334 [42 USC § 254g] to eliminate the requirement that entities receiving National Health Service Corps assignees reimburse the Agency for health services provided by those Corps members. Therefore, reporting element #8 is no longer relevant.

This report includes updates and fiscal year (FY) data<sup>7</sup> on each of these requirements and related National Health Service Corps (NHSC)<sup>8</sup> program activities and initiatives and discusses how these activities and initiatives align with the mission of the program.

## **II. Introduction**

The Bureau of Health Workforce (BHW), Health Resources and Services Administration (HRSA), Department of Health and Human Services manages this program. The Emergency Health Personnel Act of 1970 (Pub. L. 91-623) established the NHSC on December 31, 1970. Congress has amended and reauthorized the Act several times in the ensuing 48 years. HRSA made changes to the program effective in FY 2011, which included authorizing a maximum annual loan repayment award of \$50,000 per year for the NHSC Loan Repayment Program (LRP), offering the option of half-time service for both scholars and participants in the loan repayment program, and allowing service credit for teaching.

The NHSC field strength increased to 10,939 clinicians in FY 2018 from 10,179 clinicians in FY 2017. The field strength includes clinicians recruited through the NHSC LRP, the NHSC Students to Service Loan Repayment Program (S2S LRP), the NHSC Scholarship Program (SP), and the State Loan Repayment Program (SLRP).

There continues to be tremendous interest in these programs, and HRSA has maintained its robust online and in-person recruitment activities. In FY 2018, NHSC SP and LRP received 9,550 new applications, a slight increase over FY 2017. HRSA used social networking, increased collaboration with stakeholders, and online visibility to recruit eligible NHSC applicants. HRSA collaborated with 21 national health professional organizations with missions similar to NHSC to expand awareness of the program. These organizations represent clinicians, students, residents, school administrators, and sites serving underrepresented racial and ethnic minorities, as well as rural communities. HRSA exhibited at 14 national partner conferences and hosted 5 virtual job fairs, including the first HRSA Behavioral Health Virtual Job Fair, which resulted in 3,200 behavioral health job posts and nearly 1,000 behavioral health clinician profiles on the Workforce Connector. The Health Workforce Connector connects skilled health professionals to communities in need. All NHSC-approved sites can create a profile and post vacancies. Nearly 250 sites representing 47 states (in addition to the territories of American Samoa and the Virgin Islands) participated in 4 additional virtual job fairs, resulting in almost 3,000 job posts on the Workforce Connector and 4,500 participating job seekers.

An important measure of the success of NHSC is the retention of NHSC clinicians in service to the underserved after the fulfillment of their NHSC commitment. A study completed in FY 2018 showed approximately 84 percent of those who had fulfilled their NHSC commitments remained

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<sup>7</sup> The BHW Management Information System Solution collects NHSC Program data. The BHW Management Information System Solution is an IT system modernization program that replaced and/or retired a multitude of legacy systems that contained information collected from individual scholarship and loan repayment applications, recruitment and retention assistance applications, and monitoring data from individual sites. SLRP data is collected at the grantee level and reported to BHW Program Officers.

<sup>8</sup> National Health Service Corps, NHSC, and Corps are used interchangeably throughout this document.

in service to the underserved in the short term, defined as up to 2 years after their NHSC commitments ended.<sup>9</sup> An earlier study by the Lewin Group found that “79 percent of NHSC participants serve in primary care HPSAs [Health Professional Shortage Areas] one year after completion of their NHSC service,” though “less than half of participants who are still in primary care HPSAs one year after separation are actually in the same county as the one in which they served while in service (i.e., 43 percent of participants).”<sup>10</sup> An evaluation conducted in FY 2012 showed that 55 percent of NHSC clinicians continue to practice in underserved areas 10 years after completing their NHSC service commitment,<sup>11</sup> reaffirming findings from an earlier study in FY 2000, which showed the majority of NHSC clinicians remained committed to service to the underserved in the short and long term.<sup>12</sup>

### III. Overview

In FY 2018, NHSC awarded 222 new scholarships and 7 continuations as well as 3,262 new loan repayments and 2,384 loan repayment continuations. NHSC also continued implementation of S2S LRP making 162 awards for loan repayments to medical and dental students in their last year of school. The program encourages medical and dental students to select a primary care specialty and requires a 3-year service commitment in a high priority HPSA<sup>13</sup> that begins once the primary care residency is complete.

In FY 2018, the 104 clinicians who were awarded NHSC loan repayment contracts under the Zika Response and Preparedness Act (Pub. L. 114-223) entered the second year of their 3-year commitment in Puerto Rico and other territories affected by the Zika virus or other vector-borne diseases.

In FY 2018, NHSC also continued implementation of the enhanced award structure in the NHSC LRP to incentivize clinicians to work in the most underserved areas of the country. The program offers up to \$50,000 for an initial 2-year contract for those clinicians serving full-time in HPSAs with a score of 14 or higher. For those serving full-time in HPSAs below that score, the maximum award for an initial 2-year contract is \$30,000. HRSA introduced these tiers in FY 2012. Prior to FY 2012, there was no differentiation based on HPSA score.

In FY 2018, NHSC continued placing clinicians in Critical Access Hospitals (CAHs), Indian Health Service (IHS) and Tribal hospitals to extend the reach of NHSC in rural areas. Prior to the FY 2012-2015 CAH pilot program, only a CAH outpatient clinic was an eligible site and NHSC clinicians were generally limited to no more than 8 hours per week in the inpatient

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<sup>9</sup> 2018 National Health Service Corps Participant Satisfaction Survey (response rate = 30%).

<sup>10</sup> Negrusa, S, Hogan, P, Ghosh, P, Watkins, L. “National Health Service Corps – An Extended Analysis”. September 2016. <https://aspe.hhs.gov/pdf-report/national-health-service-corps-extended-analysis>.

<sup>11</sup> “Evaluating Retention in BCRS Programs” Final Report. March 30, 2012. Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

<sup>12</sup> “Evaluation of the Effectiveness of the National Health Service Corps” Final Report. May 31, 2000. Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill and Mathematica Policy Research, Inc.

<sup>13</sup> A “high priority HPSA” is currently defined as having a HPSA score of 14 or above. HPSA scoring methodology is described in more detail later in the report.

setting. The pilot program allowed clinicians to spend up to 24 hours per week in the CAH inpatient setting and no less than 16 hours per week in an affiliated outpatient clinic.<sup>14</sup> These are now permanent program requirements and CAHs are eligible sites. As of September 30, 2018, there are 207 active CAHs approved as NHSC sites, with 88 NHSC clinicians practicing in them.

As part of the FY 2018 Consolidated Appropriations Act, NHSC received \$105 million to expand and improve access to quality opioid and substance use disorder treatment. HRSA will use these funds to support NHSC LRP awards through the NHSC Rural Communities LRP and the NHSC Substance Use Disorder Workforce LRP beginning in FY 2019.

## IV. Report Requirements

### **Requirement #1: The number, identity, and priority of all HPSAs designated in such year and the number of HPSAs which the Secretary estimates, will be designated in the subsequent year.**

The designation of a HPSA is an applicant-driven process. Any individual or agency may apply to have a geographic area, population group, or facility designated as a HPSA. The designation process involves two actions: (1) the analysis of the data submitted with each new request, and (2) the review of previously designated HPSAs. HRSA determines the priority of a HPSA by assigning a numerical score based on a calculation weighing a number of factors of need, including physician-to-population ratio, infant mortality, access to health services, health status, and the ability to pay for health services. In addition, there is a permanent automatic designation of certain facility HPSAs (e.g., Federally Qualified Health Centers [FQHC]), FQHC Look-Alikes, and those Rural Health Clinics that provide services regardless of ability to pay).<sup>15</sup> While the HPSA designation was originally created for the placement of NHSC clinicians, currently more than 30 federal and state programs and agencies use the HPSA designation for resource allocation. HRSA publishes a list of designated HPSAs annually in the *Federal Register*. Additionally, HRSA maintains an online database (updated daily) of designated HPSAs and their HPSA scores (<http://hpsafind.hrsa.gov>).

As of September 30, 2018, there were 6,815 primary care HPSAs, 5,632 dental health HPSAs, and 4,929 mental health HPSAs, roughly the same number as FY 2017. HRSA anticipates the number to remain relatively stable in FY 2019.

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<sup>14</sup> Placement at CAHs is limited to physicians, physician assistants, nurse practitioners, and certified nurse midwives.

<sup>15</sup> The Health Care Safety Net Amendments of 2002 established the automatic facility HPSA designation for these facilities for a period of 6 years; subsequent amendments to the Act were made through the Health Care Safety Net Act of 2008, which made the automatic facility designation permanent.

**Requirement #2: The number of site applications filed under section 333 of this title in such year for assignment of Corps members and the action taken on each such application.**

Section 333 of the PHS Act establishes the framework by which NHSC evaluates formal requests from facilities seeking eligibility for NHSC recruitment and retention assistance (see **Requirement #7** for a description of the evaluation process). The NHSC determines eligibility based on the following:

- continued need for health professionals in the area;
- appropriate and efficient use of NHSC members previously assigned to the entity;
- support by the community for the assignment of an NHSC member to that entity;
- unsuccessful efforts by the facility to recruit health professionals from other sources;
- reasonable prospect of sound financial management by the entity; and
- willingness of the entity to support or facilitate mentorship, professional development, and training opportunities for Corps members.

Specific requirements for participation as an NHSC-approved site include providing health services in or to a designated HPSA; providing comprehensive primary care services; providing services on a free or reduced fee schedule basis to individuals at or below 200 percent of the federal poverty level; and accepting patients covered by Medicare, Medicaid, and the Children's Health Insurance Program. More information on site eligibility is available on NHSC website (<http://www.nhsc.hrsa.gov/sites/index.html>).

The FY 2018 site application cycle opened June 19, 2018, and closed August 28, 2018. The NHSC also accepted streamlined applications from sites classified as NHSC auto-approved (e.g. FQHCs and IHS sites) throughout the year from October 1, 2017 through September 30, 2018. The cumulative number of new site applications, including NHSC auto-approved sites, submitted for FY 2018 was 2,655, with 2,079 approved, 555 disapproved, and 21 under review (See Figure 1). There are currently more than 16,400 NHSC approved sites.

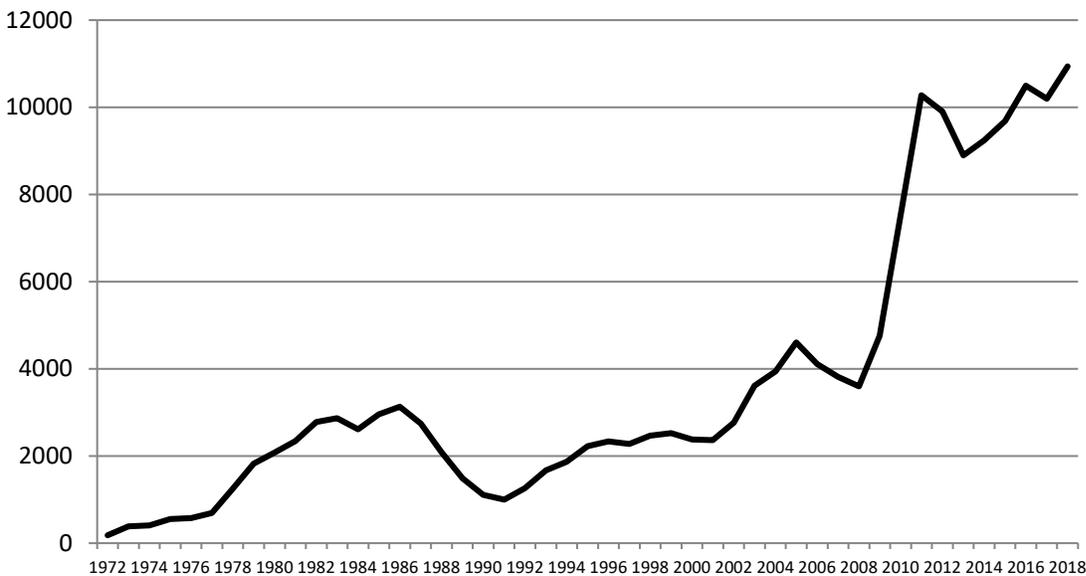
**Figure 1: Disposition of New Site Applications, FY 2018**



**Requirement #3: The number and types of Corps members assigned in such year to HPSAs, the number and types of additional Corps members which the Secretary estimates will be assigned to such areas in the subsequent year, and the need for additional members for the Corps.**

The 10,939 clinicians enumerated in the FY 2018 NHSC field strength are the largest cohort of NHSC providers in the program’s history. See **Appendix A** for distribution of NHSC clinicians by discipline and program for FY 2018. NHSC recruits clinicians by several mechanisms including the NHSC SP and LRP, the S2S LRP, and the SLRP. Though NHSC clinicians who have chosen the Private Practice Option provided under section 338D of the PHS Act ([42 USC §254n]) and the participants in SLRP are not considered to be “members of the Corps,”<sup>16</sup> the yearly NHSC field strength calculation includes them as Private Practice Option clinicians and SLRP participants are supported by NHSC funds. The field strength in FY 2018 includes those who began service in that year, as well as those whose service began in previous years and who are still fulfilling a service commitment to NHSC. NHSC clinicians who have fulfilled their service commitments and remain in service to the underserved (see **Requirement 6**) are not included. Figure 2 illustrates the history of the NHSC field strength from FY 1972 through FY 2018.

**Figure 2: NHSC Field Strength, FYs 1972 – 2018**



<sup>16</sup> “Members of the Corps” is a term of art and has certain guarantees under the law (e.g., members may work half time to fulfill their service requirement while non-members [i.e., Private Practice Option] cannot.) Awardees through the State Loan Repayment Program have contracts with states, not the Secretary, and they are not members of the Corps. Both members and non-members are included in the field strength, as noted above, because they are federally funded.

NHSC estimates the FY 2019 field strength will be approximately 11,410 clinicians. This increase from the FY 2018 level is due in part to the FY 2018 and 2019 Consolidated Appropriations Act's expansion of the NHSC LRP.

Ensuring greater racial and ethnic diversity of the health care workforce is essential for increasing access to culturally competent care for all members of our nation's communities, improving opportunities and representation of all groups within the health professions, and meeting the overall needs of our diverse population, particularly in the most underserved areas.<sup>17</sup> Many racial and ethnic minority groups are underrepresented nationally within the major health professions,<sup>18</sup> and NHSC is working to increase the number of minority clinicians. As a result, in FY 2018, the share of racial and ethnic minority NHSC providers exceeds the share in the national workforce in some instances:

- Black or African American physicians represented 15 percent of the NHSC LRP and SP participants, exceeding their 4.1 percent share in the national physician workforce.<sup>19</sup>
- Hispanic or Latino physicians represented 20 percent of the NHSC LRP and SP participants, exceeding their 4.4 percent share in the national physician workforce.<sup>20</sup>
- American Indian and Alaska Native physicians represented 1.6 percent of the NHSC LRP and SP participants, exceeding their 0.4 percent share in the national physician workforce.<sup>21</sup>
- Black or African American nurse practitioners represented 17.4 percent of the NHSC LRP and SP participants, exceeding their 10.6 percent share in the national health care workforce averages of nurse practitioners.<sup>22</sup>
- Hispanic or Latino nurse practitioners represented 9 percent of the NHSC LRP and SP participants, exceeding their 3.4 percent share in national health care workforce averages of nurse practitioners.<sup>23</sup>
- Asian psychologists represented 5.2 percent of the NHSC LRP participants, exceeding their 3.6 percent share in the national health care workforce averages of psychologists.<sup>24</sup>
- Black or African American psychologists represented 9 percent of the NHSC LRP participants, exceeding their 6.5 percent share in the national health care workforce averages of psychologists.<sup>25</sup>

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<sup>17</sup> Cohen JJ, Gabriel BA, Terrell C. The case for diversity in the health care workforce. *Health Aff (Millwood)*. 2002 Sep-Oct; 21(5): 90-102 (<http://content.healthaffairs.org/content/21/5/90.full>).

<sup>18</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. *Sex, Race, and Ethnic Diversity of U.S. Health Occupations (2010-2012)*, Rockville, Maryland; 2014 (<https://bhw.hrsa.gov/sites/default/files/bhw/nchwa/diversityushealthoccupations.pdf>).

<sup>19</sup> Association of American Medical Colleges, *Diversity of the Physician Workforce: Facts & Figures 2014*.

<sup>20</sup> *Ibid*

<sup>21</sup> *Ibid*

<sup>22</sup> U.S. Department of Labor, Bureau of Labor Statistics *Labor Force Characteristics by Race and Ethnicity, 2017*, August 2018, Report 1076.

<sup>23</sup> *Ibid*.

<sup>24</sup> *Ibid*.

<sup>25</sup> *Ibid*.

- Hispanic or Latino psychologists represented 17 percent of the NHSC LRP participants, exceeding their 8.5 percent share in the national health care workforce averages of psychologists.<sup>26</sup>

Based on self-reports of the 1,487 NHSC scholars (i.e., those in school, pursuing post-graduate training, or awaiting placement in an NHSC-approved service site), 19.5 percent are Black or African American, 15.3 percent are Asian or Pacific Islander, and 2 percent are American Indian or Alaska Native. Moreover, 13.8 percent of NHSC scholars self-reported as Hispanic or Latino. Black or African American NHSC scholars exceeded national student enrollment averages in dentistry, medicine, physician assistant, and nursing disciplines.<sup>27</sup> Hispanic or Latino NHSC scholars exceeded student enrollment averages in dentistry as they represent 15.4 percent of the Corps' dental participants, compared to their 8.8 percent share of the national student enrollment.<sup>28</sup> American Indian and Alaska Native NHSC scholars exceed national student enrollment averages in dentistry, medicine, physician assistant, and nursing disciplines.<sup>29</sup>

#### **Requirement #4: The recruitment efforts engaged in for the Corps in such year and the number of qualified individuals who applied for service in the Corps in such year.**

Since FY 2010, NHSC has used data collected from the annual NHSC Satisfaction Survey as a baseline to measure site and participant satisfaction and to identify areas where NHSC may improve recruitment and retention of Corps members in HPSAs. NHSC also uses results from this voluntary and anonymous satisfaction survey to improve program delivery and prioritize future projects and initiatives. In FY 2018, a survey of NHSC participants resulted in an overall Customer Satisfaction Index<sup>30</sup> score of 80, as NHSC participants continue to report a consistently high level of satisfaction with their experience in NHSC compared to the public's satisfaction with government programs overall.

#### ***NHSC Recruitment Materials***

There are a few ways that NHSC LRP and SP applicants become aware of the Corps. Feedback from NHSC applicants indicates that many became aware of the Corps through their work site, school, NHSC web searches and social media, and friend or family word of mouth. In FY 2018, NHSC continued to develop and implement communication materials used for a variety of distribution channels to recruit eligible applicants and raise awareness of NHSC.

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<sup>26</sup>*Ibid.*

<sup>27</sup>American Dental Association, 2017-2018 Survey on Dental Education: Academic Programs, Enrollments, and Graduates. Association of American Medical Colleges, 2017-2018. American Association of Colleges of Nursing, 2018. 32nd Physician Assistant Education Association Annual Report, 2017.

<sup>28</sup>*Ibid.*

<sup>29</sup>*Ibid.*

<sup>30</sup> The American Customer Satisfaction Index methodology is used to identify the drivers of customer satisfaction and their impact on performance. The American Customer Satisfaction Index is the only uniform, cross-industry/government measure of customer satisfaction in the United States, and it includes more than 300 private-sector company scores and over 100 federal or local government program scores. Performance scores (survey scores on rated items) are on a 0-100 scale.

One popular item is the email signup options, via GovDelivery, for all loan repayment and scholarship programs. This option allows those interested to opt in and be notified when application cycles open and close and to receive relevant program and application submission information and compliance tips. The current opt-in email lists for NHSC programs include more than 600,000 recipients.

NHSC also continued to use member experiences and member videos to highlight the impact of NHSC on communities with limited access to care, often releasing these materials to coincide with national health observances like National Health Center Week. Videos continue to be popular on NHSC social media channels and support the long-term communications strategies for the program. NHSC selected the videos for these campaigns because they represent gender, discipline, and racial diversity both in the providers and in the population served. They provide a compelling glimpse into the life of an NHSC provider, featuring those who are implementing best practices for care in their communities. During FY 2018, NHSC identified several topical areas that related to supporting current members with program compliance. From this research and analysis, NHSC produced four videos answering frequently asked questions related to finding a service site, the support services available to members, such as regional advisors and site visits, and finding a position on HRSA’s Health Workforce Connector.<sup>31</sup>

In addition, NHSC conducted direct outreach to potential program participants to announce the opening of the FY 2018 NHSC application cycles. E-Blasts (mass emails) via GovDelivery were sent to distribution lists totaling more than 600,000 prospective NHSC LRP and SP applicants, school administrators, and NHSC partners including NHSC alumni, the National Advisory Council, professional associations, NHSC sites, program participants, and state primary care offices. As summarized in Table 1 below, these efforts resulted in more than 2,000 applications to the NHSC SP and over 7,000 new applications to the NHSC LRP Programs.

**Table 1: Applications and Awards, FY 2018**

<i>Program</i>	<i>Applications</i>	<i>New Awards</i>
<i>NHSC SP</i>	2,008	222
<i>NHSC LRP</i>	7,300	3,262
<i>S2S LRP</i>	242	162

### ***NHSC Communications Strategy***

In FY 2018, NHSC used multiple channels, including earned, paid, and social media, to increase program awareness among prospective program participants. These efforts enable NHSC to reach a broader pool of applicants and enhance recruitment and retention of qualified participants:

- Between October 1, 2017 and September 30, 2018, the number of NHSC Facebook page “likes” increased 7 percent, from 38,289 to 40,989.

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<sup>31</sup> Link to videos: <https://www.youtube.com/playlist?list=PL5Q6ZzhhASkdtI9NkUpyBY1984JzPSYz9>.

- NHSC hosted several Facebook and Twitter chats in 2018, focusing on finding primary care jobs in high-need locations, engaging current clinicians in the field, and addressing questions from clinicians interested in NHSC programs.
- An earned media<sup>32</sup> campaign to encourage applications to the S2S LRP garnered 20 print, online, and broadcast pieces, reaching 830,000 individuals.
- A multi-pronged paid campaign to promote HRSA's first Behavioral Health Virtual Job Fair garnered 15 stakeholder features through 4 platforms including online and print newsletters and website banners, nearly 500,000 Facebook impressions, and 35,000 video views. The Behavioral Health Virtual Job Fair exceeded job seeker registration goals (more than 3,000) and produced 1,300 user profiles on the Health Workforce Connector.<sup>33</sup>
- The Health Workforce Connector paid media campaign to introduce and increase user profiles yielded nearly 400,000 impressions and more than 500 new profiles, from January 16 to February 16, 2018. During the same 1 month period, the website received over 34,000 visitors, of which 25 percent were new.

### ***NHSC Stakeholder Engagement and Conferences/Exhibits***

In FY 2018, NHSC expanded stakeholder engagement and promotion of its scholarship and loan repayment programs through webinars, conference calls, Facebook chats, e-blasts, presentations, and exhibits at 14 conferences. By fostering relationships with 21 national health organizations, state primary care offices, and primary care associations the NHSC expanded its reach to larger and more diverse audiences including pipeline and health professions students, clinicians, faculty, school administrators, and sites serving underrepresented racial and ethnic minorities and rural communities. These groups included the Association of American Medical Colleges, American Association of Colleges of Osteopathic Medicine, Association of Clinicians for the Underserved, National Medical Association, Hispanic Medical Association, American Dental Association, Black Nurses Association, and student groups such as the American Medical Student Association, Student National Medical Association, and Latino Medical Student Association.

HRSA and the IHS work together to use NHSC programs as recruitment tools to fill health professional vacancies at Tribal sites; IHS, Tribal and Urban Indian Health Programs (ITUs) that exclusively serve Tribal members can qualify as NHSC sites and extend their ability to recruit and retain providers by utilizing NHSC scholarship and loan repayment incentives. The Division of Regional Operations with staff in HRSA's 10 Regional Offices worked with ITUs, offering hands-on assistance for completing site profiles and posting vacancies on the Health Workforce Connector. HRSA's Shortage Designation Branch works with ITUs to verify that their HPSA scores are current, enabling the sites to be competitive in recruiting NHSC scholars and loan repayment participants. As of September 30, 2018 there were 590 NHSC clinicians serving in the 809 ITU sites qualified for NHSC loan repayment.

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<sup>32</sup> Earned media (or free media) refers to publicity gained through promotional efforts other than paid media advertising, which refers to paying for publicity gained through advertising.

## *NHSC Recruitment Resources*

HRSA's virtual job fairs and the Health Workforce Connector offer platforms to link large numbers of career-seeking clinicians with job opportunities at NHSC and NURSE Corps-approved sites. While virtual job fairs and the Health Workforce Connector are recruitment tools intended for NHSC and NURSE Corps program affiliates, prospective program participants and career-seeking health professionals can access these free, public-facing resources.

HRSA leveraged both recruitment resources to combat the opioid epidemic with its first Behavioral Health Virtual Job Fair. The number of participating sites was at capacity with over 700 job posts on the Connector and nearly 1,000 participating job seekers. Promotion for the Behavioral Health Virtual Job Fair resulted in 3,200 behavioral health job posts and nearly 1,000 behavioral health clinician profiles on the Connector. The four remaining FY 2018 HRSA virtual job fairs included nearly 250 participating sites representing 47 states (including American Samoa and the Virgin Islands) with nearly 3,000 job posts on the Connector and 4,500 participating job seekers.

In FY 2018, the Health Workforce Connector received over 330,000 visits. Email marketing, digital paid media, and social media campaigns contributed to an increase in website traffic with over 400,000 impressions and nearly 80,000 visits to the Connector. Ongoing outreach efforts and improved functionality resulted in double-digit growth for job posts increasing 22 percent over FY 2017.

## *School Outreach*

HRSA promoted NHSC program opportunities to all eligible health professions schools through e-blasts and in-person visits when possible. HRSA presented to medical, dental, nursing, and behavioral and mental health students at 105 health professions schools throughout the United States and its territories and conducted direct calls to an additional 80 medical and nursing schools and over 100 health programs in high-need HPSAs with few or no NHSC participants. This outreach resulted in contact with over 130 school officials and 4 tailored recruitment webinars.

## **Requirement #5: The number of patients seen and the number of patient visits recorded during such year with respect to each HPSA to which a Corps member was assigned during such year.**

In aggregate, NHSC clinicians serving in FY 2018 saw approximately 11.5 million patients and generated 46 million patient visits. NHSC estimates that primary care NHSC clinicians saw 6.36 million patients and generated 25.4 million patient visits. Dental health NHSC clinicians saw 1.81 million patients and generated 7.2 million patient visits, and behavioral and mental health NHSC clinicians saw 3.33 million patients and generated 13.4 million patient visits.

**Requirement #6: The number of Corps members who elected, and the number of Corps members who did not elect, to continue to provide health services in HPSAs after termination of their service in the Corps and the reasons (as reported to the Secretary) of members who did not elect for not making such election.**

NHSC continues to monitor the retention rates of NHSC scholars and loan repayment participants in service to the underserved beyond the fulfillment of their service commitment. Retained clinicians are those who provide care in a designated HPSA after their service obligation ends.

***Short-Term Retention***

NHSC is committed to continuous performance improvement. Based on the most recent Participant Satisfaction Survey results<sup>34</sup> the short-term retention rate among respondents who completed their NHSC service commitment in the past 2 years is 84 percent. Applying the NHSC alumni retention rate among survey respondents to the 5,448 clinicians who successfully completed service in that period, NHSC estimates that approximately 4,576 retained clinicians continue to provide primary care services to underserved communities and vulnerable populations within 2 years after completing their service commitment.

The experiences that NHSC providers have at their sites while completing their service obligations significantly influence retention among NHSC providers. The most common reasons given by participants for not remaining at their NHSC-approved site following their service commitment were financial considerations and site operations.<sup>35</sup>

***Long-Term Retention***

In 2012, the Cecil G. Sheps Center for Health Services Research at the University of North Carolina at Chapel Hill completed a report entitled “Evaluating Retention in Bureau of Clinician Recruitment and Service (BCRS) Programs,” which examined long-term retention of NHSC clinicians in service to the underserved. This report estimated that 55 percent of NHSC scholars and loan repayment participants remained in service to the underserved as long as 10 years after fulfilling their NHSC service commitment.<sup>36</sup> This estimate compares favorably with the findings

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<sup>34</sup> The 2018 National Health Service Corps Participant Satisfaction Survey (see **Requirement 4** above).

<sup>35</sup> The 2018 National Health Service Corps Participant Satisfaction Survey (see **Requirement 4** above).

<sup>36</sup> “Evaluating Retention in BCRS Programs” Final Report. March 30, 2012. Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill. The estimated retention figure of 55 percent is based on the finding that 1,745 of the 3,174 respondents to the study met the retention criteria and the sample size was sufficient to generalize to the entire population.

from the 2000 Report entitled “Evaluation of the Effectiveness of the NHSC,” which found that 52 percent of those who completed their service commitment were considered retained.<sup>37</sup>

Based on a 2016 study commissioned by the U.S. Department of Health and Human Services’ Assistant Secretary for Planning and Evaluation and following up on a previous version released in 2014,<sup>38</sup> the Lewin Group examined retention rates of NHSC participants between 2000 and 2014. Key findings from this report were that nearly 43 percent of NHSC primary care participants were located in the same HPSA where they met their service obligation 1 year after that obligation was completed and 79 percent were located in a HPSA location. By the sixth year after obligation completion 26 percent of the participants were located in the same HPSA where they served during their NHSC service, and 69 percent were in a HPSA location.<sup>39</sup>

## **Requirement #7: The results of evaluations and determinations made under section 333(a)(1)(D) during such year.**

Section 333 of the PHS Act establishes the framework by which NHSC evaluates formal requests from facilities seeking eligibility for NHSC recruitment and retention assistance (see **Requirement 2** above for eligibility requirements and the number of applications received and their disposition). To become an NHSC site, an entity’s compliance with section 333(a)(1)(D) of the PHS Act must be determined through a three-step process.

First is the designation of the geographic area, the population group served by the site, or the site itself as a HPSA. As noted in **Requirement 1** above designation of a HPSA involves the evaluation of a number of factors and data, including the continued need for health professional in a geographic area. Generally, the need and demand for health professionals is documented by the ratio of available health professionals to the number of individuals in the area (see 42 CFR Part 5).

Second is the determination that the area, population group, or facility is a HPSA of greatest shortage. Indicators analyzed and scored to determine which HPSAs are in greatest need include patient utilization patterns for primary care, dental, and mental health services such as:

- ratio of health providers to individuals in the area,
- rate of low birth weight births,
- rate of infant mortality,
- rate of poverty,
- accessibility of primary health care services (travel time or distance),
- presence of fluoridated water,
- ratios of population under 18 and over 65, and

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<sup>37</sup> “Evaluation of the Effectiveness of the National Health Service Corps” Final Report. May 31, 2000. Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill and Mathematica Policy Research, Inc.

<sup>38</sup> Negrusa, S, Ghosh, P, Warner, JT. “Provider Retention in High Need Areas: Final Report”. December 2014. <https://aspe.hhs.gov/pdf-report/provider-retention-high-need-areas>.

<sup>39</sup> Negrusa, S, Hogan, P, Ghosh, P, Watkins, L. “National Health Service Corps – An Extended Analysis”. September 2016. <https://aspe.hhs.gov/pdf-report/national-health-service-corps-extended-analysis>.

- prevalence of alcohol or substance abuse.

HPSA scores range from 0 to 25 for primary care and mental health and 0 to 26 for dental care, with 0 representing the least need. All FQHCs and Rural Health Clinics providing access to care regardless of ability to pay receive automatic facility HPSA designation. These facilities may have a HPSA score of zero indicating either a relatively low need or possibly, that no data was provided to compute a HPSA score.

Third for an application to be accepted, the submitting entity must meet all of the following requirements:

- be part of a system of care;
- have a documented record of sound fiscal management;
- verify appropriate and efficient use of current and former NHSC personnel;
- be accessible to individuals regardless of their ability to pay;
- accept Medicaid, Medicare, and Children's Health Insurance Program beneficiaries;
- maintain a sliding discount fee schedule; and
- have general community support for the assignment of an NHSC member to that entity.

NHSC offers NHSC recruitment and retention assistance to all facilities that apply and meet the above requirements. Upon approval of their application, facilities post vacancies on the Health Workforce Connector as they occur. NHSC lists vacancies on the Health Workforce Connector, which includes primary care, dental health, and behavioral and mental health provider vacancies in designated HPSAs, as well as information related to the services provided and populations served by NHSC-approved sites. From October 1, 2017, through September 30, 2018, the number of new vacancies created was 8,977, and 1,302 vacancies were filled. As of September 30, 2018, there were 5,616 vacancies listed. The Health Workforce Connector is located on the NHSC website: <https://connector.hrsa.gov/>.

## **V. Conclusion**

The achievements of NHSC in 2018 are indicative of the increased promotion and outreach of the program and the greater collaboration with partners made possible by the enhanced resources provided to NHSC. These resources allowed NHSC to achieve to record levels and serve the health care needs of approximately 11.5 million patients across the United States.

NHSC will continue its focus on ensuring that NHSC providers are serving in the nation's high-need areas and leverage the existing statutory authority to encourage individuals to pursue a career in primary care. These efforts and the fostering of collaborative partnerships will allow NHSC to continue to address the nationwide shortage of health care providers in underserved communities.

One of the critical activities of the NHSC beginning in FY 2019 is the implementation of the NHSC Rural Communities LRP and the NHSC Substance Use Disorder Workforce LRP. These programs, funded through the FYs 2018 and 2019 Consolidated Appropriations Acts, will focus on expanding access to and improving the quality of opioid and substance use disorder treatment in rural and underserved areas nationwide.

# Appendix A: National Health Service Corps FY 2018 Field Strength

Data as of 09/30/2018

States & Territories	Total	Total NHSC LRP Clinicians Serving	Total NHSC SP Clinicians Serving	Total S2S LRP Clinicians Serving	Total SLRP Clinicians Serving	PHY	DD	RDH	NP	PA	CNM	M&B	RN (SLRP)	PHARM (SLRP)	Urban	Rural	Grantee	Non-Grantee
AK	173	104	5	3	61	34	14	3	29	19	4	61	5	4	55	57	25	87
AL	97	89	3	5	0	22	8	0	34	5	0	28	0	0	65	32	56	41
AR	81	78	1	2	0	3	5	2	20	1	0	50	0	0	32	49	27	54
AZ	471	388	23	11	49	88	61	6	143	44	15	111	0	3	298	124	196	226
CA	979	768	64	24	123	174	210	19	184	137	8	241	0	6	674	182	633	223
CO	318	185	13	7	113	67	26	15	23	43	12	124	0	8	144	61	138	67
CT	236	225	6	5	0	28	11	11	44	12	5	125	0	0	228	8	132	104
DE	22	19	1	0	2	3	2	1	12	1	0	3	0	0	15	5	16	4
FL	426	400	16	10	0	100	60	10	142	39	7	68	0	0	373	53	302	124
GA	207	180	13	6	8	48	23	3	71	22	5	35	0	0	120	79	114	85
HI	63	43	2	2	16	13	16	2	14	1	0	17	0	0	29	18	44	3
IA	109	94	1	1	13	12	17	7	33	4	2	34	0	0	38	58	61	35
ID	263	212	5	6	40	53	15	13	36	51	0	93	0	2	128	95	118	105
IL	565	481	16	9	59	114	47	6	163	69	19	147	0	0	428	78	353	153
IN	119	113	3	3	0	28	20	3	16	4	0	48	0	0	95	24	82	37
KS	107	83	4	2	18	15	17	7	36	14	0	18	0	0	31	58	61	28
KY	125	94	3	4	24	18	12	4	37	5	0	46	0	3	38	63	51	50
LA	165	116	4	4	41	35	14	0	52	5	0	59	0	0	101	23	72	52
MA	222	128	12	14	68	44	20	6	77	12	0	63	0	0	147	7	144	10
MD	180	143	11	7	19	46	12	4	35	8	6	69	0	0	145	16	102	59
ME	60	54	2	1	3	12	6	3	9	4	0	26	0	0	19	38	39	18
MI	469	298	11	10	150	91	59	22	91	69	7	130	0	0	217	102	233	86
MN	171	143	8	6	14	22	19	10	21	14	1	84	0	0	71	86	55	102

States & Territories	Total	Total NHSC LRP Clinicians Serving	Total NHSC SP Clinicians Serving	Total S2S LRP Clinicians Serving	Total SLRP Clinicians Serving	PHY	DD	RDH	NP	PA	CNM	M&B	RN (SLRP)	PHARM (SLRP)	Urban	Rural	Grantee	Non-Grantee
MO	467	436	4	16	11	85	69	25	124	23	1	140	0	0	244	212	219	237
MS	110	102	5	3	0	16	6	0	58	3	0	27	0	0	24	86	59	51
MT	214	177	9	4	24	32	16	9	27	36	1	82	8	3	32	158	73	117
NC	249	198	29	8	14	59	29	2	56	56	4	43	0	0	105	130	153	82
ND	53	31	0	0	22	4	3	1	25	10	0	5	3	2	7	24	17	14
NE	83	67	2	0	14	13	14	1	21	8	3	21	0	2	47	22	50	19
NH	17	16	0	1	0	1	1	1	3	0	0	11	0	0	5	12	9	8
NJ	45	29	1	1	14	7	10	1	14	2	0	11	0	0	30	1	30	1
NM	244	226	14	4	0	49	30	13	68	22	6	56	0	0	123	121	146	98
NV	83	61	1	0	21	8	9	3	19	18	0	24	0	2	42	20	34	28
NY	632	571	19	14	28	176	62	17	117	83	22	155	0	0	502	102	331	273
OH	220	159	9	7	45	56	41	9	61	1	0	52	0	0	123	52	147	28
OK	264	259	2	3	0	18	17	8	60	22	8	131	0	0	51	213	69	195
OR	380	320	26	10	24	78	39	23	78	48	4	106	0	4	196	160	252	104
PA	209	180	20	9	0	48	35	13	41	24	4	44	0	0	175	34	163	46
RI	75	13	3	3	56	15	12	7	7	2	2	18	12	0	19	0	19	0
SC	172	160	5	7	0	39	13	5	59	21	3	32	0	0	107	65	141	31
SD	50	50	0	0	0	2	7	3	11	12	2	13	0	0	11	39	27	23
TN	185	122	2	6	55	23	17	5	82	14	4	40	0	0	87	43	66	64
TX	153	136	12	5	0	22	27	2	40	12	0	50	0	0	108	45	92	61
UT	106	99	6	1	0	21	11	3	16	31	1	23	0	0	61	45	62	44
VA	143	94	9	4	36	26	21	2	32	16	1	43	2	0	53	54	68	39
VT	33	5	0	0	28	8	7	0	12	2	2	2	0	0	1	4	5	0
WA	463	384	25	13	41	64	82	19	64	40	4	179	8	3	300	122	300	122
WI	222	138	18	13	53	39	60	10	34	11	4	64	0	0	91	78	119	50
WV	108	96	3	0	9	21	7	4	33	13	0	29	0	1	55	44	77	22

States & Territories	Total	Total NHSC LRP Clinicians Serving	Total NHSC SP Clinicians Serving	Total S2S LRP Clinicians Serving	Total SLRP Clinicians Serving	PHY	DD	RDH	NP	PA	CNM	M&B	RN (SLRP)	PHARM (SLRP)	Urban	Rural	Grantee	Non-Grantee
WY	35	26	0	0	9	5	1	0	4	7	0	18	0	0	5	21	3	23
AS	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1
DC	151	113	11	2	25	56	18	3	28	15	3	28	0	0	126	0	97	29
GU	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0
MP	7	7	0	0	0	2	0	0	0	5	0	0	0	0	0	7	1	6
PR	129	128	0	1	0	83	5	0	1	0	0	40	0	0	0	129	123	6
VI	7	6	1	0	0	2	1	1	1	2	0	0	0	0	0	7	5	2
<b>Total</b>	<b>10,939</b>	<b>8,849</b>	<b>463</b>	<b>277</b>	<b>1,350</b>	<b>2,149</b>	<b>1,364</b>	<b>347</b>	<b>2,518</b>	<b>1,142</b>	<b>170</b>	<b>3,168</b>	<b>38</b>	<b>43</b>	<b>6,221</b>	<b>3,368</b>	<b>6,012</b>	<b>3,577</b>
<b>Percentage of Field Strength</b>		<b>80.90%</b>	<b>4.23%</b>	<b>2.53%</b>	<b>12.34%</b>	<b>19.65%</b>	<b>12.47%</b>	<b>3.17%</b>	<b>23.02%</b>	<b>10.44%</b>	<b>1.55%</b>	<b>28.96%</b>	<b>0.35%</b>	<b>0.39%</b>	<b>64.88%</b>	<b>35.12%</b>	<b>62.70%</b>	<b>37.30%</b>

Non-Grantee = clinicians serving at any site type other than FQHC; does not include SLRP\* **The totals in the Rural/Urban and Grantee/Non-Grantee columns does not match the NHSC Field Strength of 10,939. These totals account for everything except SLRP; we do not have that data.**

**The NHSC Field Strength is defined as the number of practicing NHSC clinicians currently providing obligated services in approved NHSC sites. This includes NHSC loan repayment participants, NHSC scholars that have completed training and are currently completing their service obligation, and SLRP loan repayment participants fulfilling their service obligations.**

NHSC SP = Scholars fulfilling NHSC obligation

NHSC LRP = Loan repayment participants fulfilling NHSC obligation

S2S LRP = Students to Service fulfilling NHSC obligation

SLRP = State Loan Repayment Program loan repayment participants fulfilling service obligation

PHY = Allopathic/Osteopathic Physicians (includes psychiatrists)

DD = Dentists

RDH = Registered Dental Hygienist

NP = Nurse Practitioners

PA = Physician Assistants

CNM = Certified Nurse Midwife

M&B = Includes Health Service Psychologist, Marriage and Family Therapist, Psychiatric Nurse Specialist, Licensed Professional Counselor, and Licensed Clinical Social Worker

PHARM = Pharmacist (SLRP only)

RN = Registered Nurse (SLRP Only)

Urban = clinicians serving in an urban setting; does not include SLRP

Rural = clinicians serving in a rural setting as defined by the Federal Office of Rural Health Policy; does not include SLRP

Grantee = clinicians serving in a Federally Qualified Health Center (FQHC); does not include SLRP