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# The National Health Service Corps (NHSC) is Vital for Addressing Workforce Shortages and Improving Diversity Among Clinicians

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*This paper explores how the NHSC directly supports clinicians and organizations working in health professional shortage areas to address the growing demand for healthcare services in underserved communities and how Congressional support can improve the program.*

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# INTRODUCTION

Founded in 1972, the NHSC was designed to bring primary care clinicians, including medical, dental, and mental/behavioral health providers, to the country's most underserved communities. In exchange for their medical expertise and commitment to serve in these communities, the Corps helps these professionals alleviate debt accumulated during their education. The NHSC programs include:

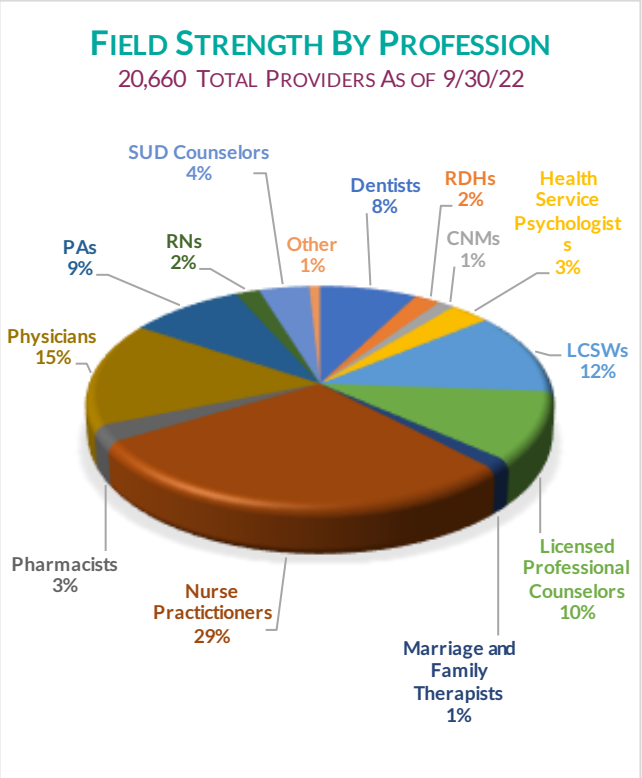
- *Scholarship Program (SP):* Provides full scholarships for eligible students in exchange for serving after training in Health Professional Shortage Areas (HPSAs). You commit to a minimum two years of full-time service, with the total number of years served dependent on how many school years of NHSC SP support you received. The SP will pay tuition and eligible fees directly to the educational institution and provide an estimated monthly stipend of $1,466 before federal taxes for the 2022-2023 school year.[1] In FY 2021, the average new SP award was $245,323.[2]
- *Loan Repayment Program (LRP):* Helps practicing providers repay school loans up to $50,000 per year in exchange for two years of service at an NHSC-approved site in a designated Health Professional Shortage Area (HPSA). In FY 2021, the average new LRP award was $40,906.[3]
- *Rural Community LRP:* Provides loan repayments up to $100,000 in exchange for three years of service to combat the opioid epidemic in rural communities.
- *State LRP (SLRP):* Provides matching funds for qualified state loan repayment programs up to $50,000.
- *Students to Service(S2S) LRP:* Provides loan repayments up to $120,000 for medical school students in their last year of training who choose primary care in exchange for service.
- *Substance Use Disorder Workforce (STAR) LRP:* Provides loan repayments up to $250,000 in exchange for six years of service of full-time employment at a STAR LRP-approved service site to expand access to SUD treatment and prevent overdose deaths.

### Eligible Entities

- Federally Qualified Health Centers and Lookalikes
- American Indian and Alaskan Native Health Clinics
- Certified Rural Health Clinics
- Critical Access Hospitals
- School-Based Clinics
- Mobile Units
- Free Clinics
- Substance Use Disorder Treatment Facilities
- Community Mental Health Centers
- State or Local Health Departments
- Correctional & Detention Facilities
- Community Outpatient Facilities
- Private Practices
- ICE Health Service Corps

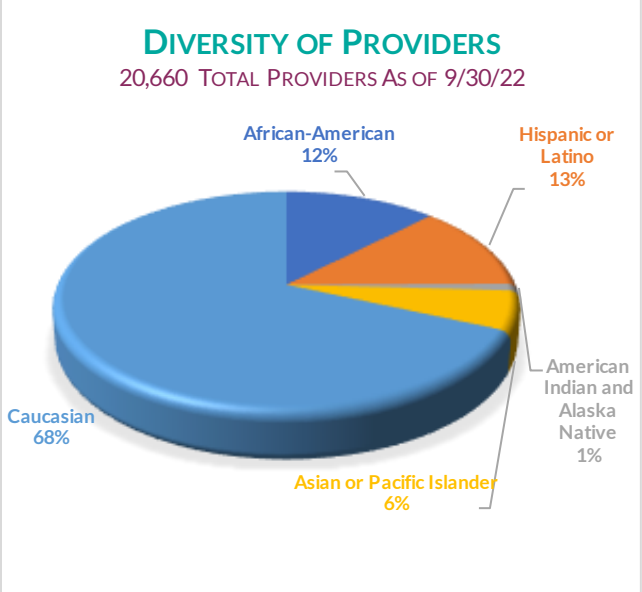
## NHSC Field Strength as of 2022

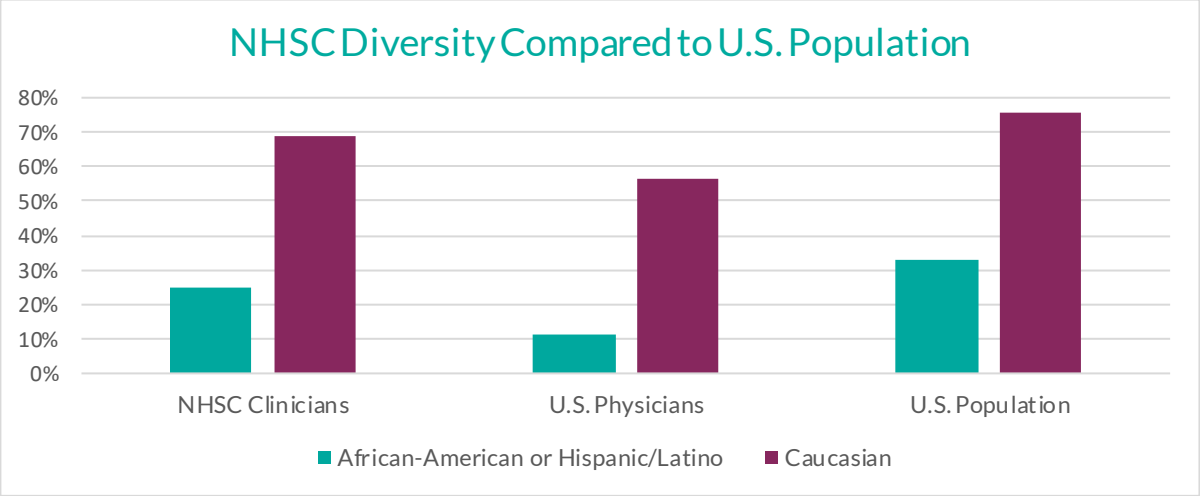
- More than 69,500 providers have served in the NHSC since its inception.[4]
- Over 20,000 NHSC providers serve in Health Professional Shortage Areas (HPSAs) in every U.S. state and territory, and more than 3,500 NHSC scholars are in residency or school preparing to serve.[5]
- NHSC providers serve more than 21 million people, providing a range of clinical services, including primary care, dental, and mental health.[6]




## Equity and Diversity within the NHSC

- NHSC providers represent a diverse group of clinicians. 33% of the nation's total population identifies as Black or Hispanic/Latinx.[7] This same population only represents 11% of physicians in the U.S.[8] However, as of 2022, roughly 25% of physicians serving through the NHSC identify as Black or Hispanic/Latinx, a key indication that the NHSC is successfully driving clinician diversity.[9]
- Among NHSC providers, 12.4% are African-American, 12.5% are Hispanic or Latinx, 5.8% are Asian or Pacific Islander, and 1% are American Indian or Alaska Native.[10]
- Black, Hispanic or Latinx, and Asian or Pacific Islander individuals each represented about 14% of SP participants in service.[11]
- In terms of LRP participants, 12.5% are African-American, 14.2% are Hispanic or Latino, and 6.3% are Asian or Pacific Islander.[12]
- More than 21 million people receive care from NHSC providers serving at more than 9,000 community health centers in urban, rural, and tribal communities.[13]





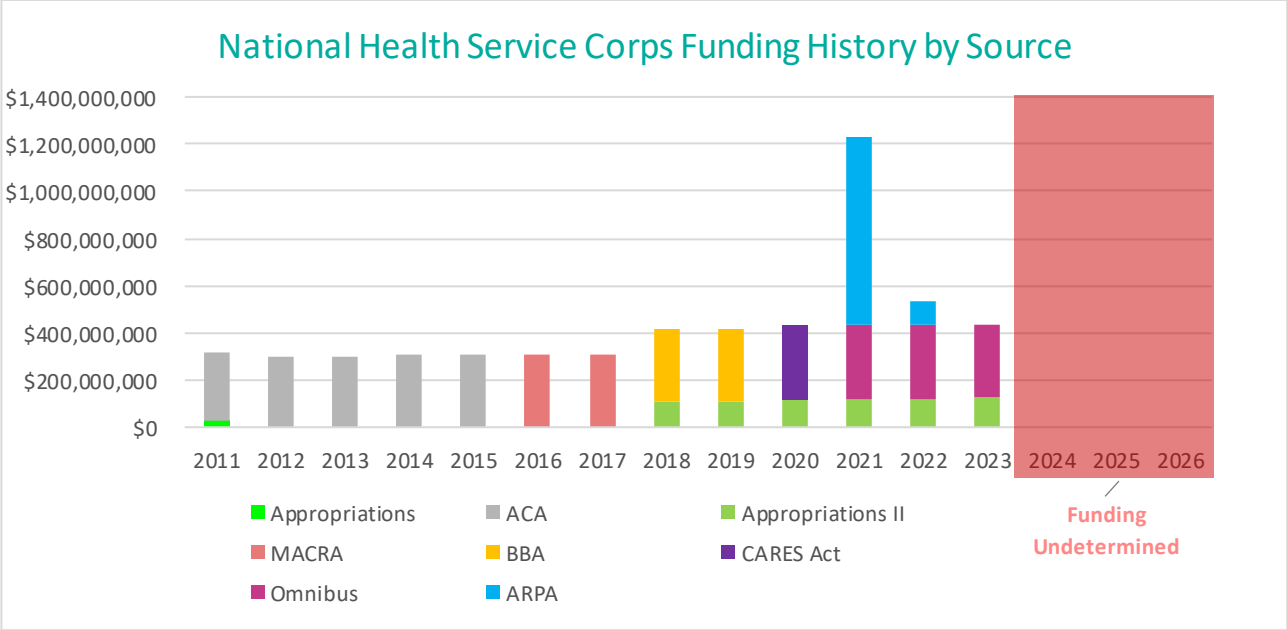

## HOW THE NHSC IS FUNDED

The NHSC is funded by a combination of discretionary and mandatory dollars annually.

**NHSC discretionary spending** is controlled by the annual appropriation acts, and these authorization levels are under the control of the House and Senate Appropriations Committees.

**NHSC mandatory, or direct spending,** is controlled by laws other than the appropriation acts, which involve funding for entitlement programs that are under the control of the Senate Committee on Health, Education, Labor, and Pensions (HELP Committee) and the House Committee on Energy and Commerce (E&C Committee).

## FUNDING HISTORY



- **ACA:** The Affordable Care Act (ACA) permanently reauthorized the NHSC by creating a new mandatory funding source, the Community Health Center Fund (CHCF), to fund the program from Fiscal Years 2011 through 2015 (FY11-FY15).[14|15] This funding increased over the five-year period from $290 million to $310 million. Prior to the ACA, the NHSC had been funded with discretionary appropriations only. Unfortunately, discretionary appropriations funding for the NHSC was eliminated by FY2012.

- **MACRA:** At the end of the five-year ACA trust fund, Congress passed the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), extending NHSC funding for two additional years (FY16 & 17) at $310 million per year.[16]

- **BBA:** The funding extension under MACRA expired without an extension in October 2017. Congress finally passed the Bipartisan Budget Act of 2018 (BBA) in February of 2018, which extended funding for the NHSC through the trust fund for another two years (FY18 & 19) at $310 million per year.[17]

- **Appropriations:** Beginning in FY2018, the NHSC received discretionary appropriations for the first time since FY11. Congress provided $105 million for FY18 and $120 million for FY19, FY20, & FY21 specifically for substance use disorder (SUD) treatment providers within the NHSC program.[18|19|20|21] For FY22, Congress slightly increased this funding to $121.6 million after passing the Consolidated Appropriations Act of 2022.[22] For FY23, Congress increased this funding to $125.6 million after passing the Consolidated Appropriations Act of 2023.[23] (*The appropriations funds were intended solely for SUD treatment providers and did not represent the total allotment of NHSC funds.)

- **CARES Act:** The Coronavirus Aid, Relief, and Economic Security Act (CARES Act) appropriated $310 million in mandatory funding for the NHSC for FY20.[24]

- **FY21 Omnibus:** In December 2020, Congress passed the Consolidated Appropriations Act of 2021, which included a three-year extension for NHSC funding at $310 million per year for FY21, 22, & 23 as a part of a larger omnibus spending bill. **There is NO guaranteed funding for the National Health Service Corps beyond FY23.**[25]
    - Other healthcare extensions included the Community Health Centers (CHC) and the Teaching Health Center Graduate Medical Education (THCGME) program.

- **ARPA:** In March 2021, Congress passed the American Rescue Plan Act of 2021 (ARPA).[26] This COVID-19 relief package provided a one-time appropriation of $800 million for the NHSC. In October of 2021, HRSA awarded a total of nearly $100 million in additional American Rescue Plan funds for the NHSC's State Loan Repayment Program (SLRP).[27|28]
    - In FY21, the NHSC spent roughly $319 million of the ARPA funding.
    - In FY22, the NHSC spent roughly $352 million of the ARPA funding, which leaves approximately $129 million remaining ARPA funds for FY23.

## FUNDING ISSUE

The overarching funding for the NHSC remains unstable and uncertain. This is particularly troubling given the increased stress and demand on the healthcare workforce due to the COVID-19 pandemic and strained economy. As a vital tool for workforce recruitment and retention, and a key driver of both diversity and health equity, NHSC grantees cannot afford the instability or uncertainty of funding for the NHSC.

Lack of consistent or adequate funding also equates to fewer NHSC applications being funded. In FY20, the NHSC was only able to fund 11.6% of all NHSC SP applications and 66.1% of all NHSC LRP applications.[29] This persistent deficit in NHSC funding has resulted in perpetual shortfalls, leading to clinician vacancies for underserved communities nationwide. In FY21, the NHSC used $319 million in additional funding from the American Rescue Plan Act to help fund about 60.1% of all NHSC SP applications and 86.2% of all NHSC LRP applications it received.[30] In FY22, the NHSC used another $352 million in funding from the American Rescue Plan Act to help fund about 46.7% of all NHSC SP applications and 71.2% of all NHSC LRP applications it received.[31] Unfortunately, **American Rescue Plan funds for the NHSC will be exhausted by the end of FY23.**

## FY 2020-22 NHSC PROGRAM FUNDING

In FY2022, more than $751 million in funding provided support to over 20,000 NHSC providers in the following programs:[32]

| NHSC Award Amount | 2020 | 2021 | 2022 |
|---|---|---|---|
| *Scholarship Program* | $59.4M | $293M | $300.2M |
| *Loan Repayment Programs* | $224.1M | $254.5M | $207.9M |
| *Students to Service* | $17.3M | $27M | $38.7M |
| *State Loan Repayment Program* | $18.9M | $18.3M | $99.9M (to be spent over 3 years) |
| *Substance Use Disorder Workforce Loan Repayment Program* | $77.2M | $56.7M | $51.5M |
| *Rural Community Loan Repayment Program* | $40.1M | $50M | $52.8M |
| **Total Award Amount** | **$437M*** | **$699.5M*** | **$751M*** |

*HRSA's total award amount represents a combination of recoveries from prior years across all programs; therefore, HRSA's total award amount may not match the NHSC funding total for a particular fiscal year. NHSC funding is available until expended.

## The NHSC Awards for the SP and LRP

| | FY 2021 | FY 2022 |
|---|---|---|
| *Scholarship Program (SP)*: | 1,192 full scholarships | 1,199 full scholarships *and 25 continuation awards* |
| *Loan Repayment Program (LRP)*: | 5,050 new awards and 2,277 continuation awards | 3,782 new awards *and 2,476 continuation awards* |

Despite increased investments into the NHSC program components for FY21 & 22 compared to FY20, there is still a large deficit in funding. In FY22, the number of new LRP awards decreased by 1,268 when compared to the previous fiscal year for two reasons: 1) the majority of FY22 funding was provided for the continuation of the significant ARP-funded new placements that were awarded in FY21; and 2) the LRP received nearly $46.6 million less in funding in FY22. The reality of the situation is that the NHSC was left with less funds available to support new loan repayment awards resulting in a reduced Field Strength for FY22. This trend will continue into FY23 with the majority of funding being provided for the continuation of the significant ARP-funded new placements that were awarded in FY21 & 22.

## Average Cost of Tuition Covered by the NHSC Scholarship Program

| Fiscal Year | # of New Awards | Obligated Funds | Average Award Amount |
|---|---|---|---|
| 2020 | 251 | $59,392,862 | $236,625 |
| 2021 | 1192 | $292,425,317 | $245,323 |
| 2022 | 1199 | $299,093,269 | $249,452 |

In FY22, the cost of the NHSC SP was approximately $300 million, and approximately $208 million for the LRP. Simply put, if funding for the NHSC were to return to the pre-pandemic FY20 levels (approximately $436 million), this would equate to significant cuts to the total number of SP and LRP applicants funded. This sharp decrease in participating clinicians, particularly in medically underserved communities, would be devastating to an already severely strained workforce in communities with high needs and complexities.

# CONGRESS MUST ACT TO ADDRESS WORKFORCE SHORTAGES

According to 2020 data from the Association of American Medical Colleges (AAMC), the U.S. will face a projected shortage of 54,100 to 139,000 physicians, including shortfalls in both primary and specialty care, by 2033.[33] While these shortages have been common in rural and underserved urban areas for the past few decades, this issue was exacerbated by the COVID-19 pandemic and has become more common nationwide.

Current data from HRSA reveals that more than 99 million Americans live in primary care health professional shortage areas (HPSAs), and more than 17,000 practitioners are needed to remove the HPSA designation.[34] Many healthcare experts describe this workforce shortage as a perfect storm of multiple factors. According to AAMC's 2022 Physician Specialty Data Report, 46.7% of physicians were 55 or older, and more than 2 of every 5 active physicians in the U.S. will be 65 or older within the next decade.[35] Additionally, medical school enrollment caps have increased by 30% since 2002.[36] Unfortunately, the average medical school acceptance rates are still relatively low at about 5.5%, ranging from 1.4 to 8.7%.[37] Another problem is the federally imposed cap on residency training positions through the General Medical Education of (GME) program. Although it is important to acknowledge that funding for 1,000 new Medicare-supported GME slots was included in the Consolidated Appropriations Act of 2021, phasing in 200 slots annually over five years is not enough to address the needs in all HPSAs.

More specifically, getting clinicians into primary care is challenging and even more so in rural or underserved communities. The younger generation of health care workers are now Millennials, anyone born between 1981 and 1996 (ages 27 to 42). Many of these current and future physicians are drawn to bigger cities for better job opportunities and higher salaries as a specialist. Even when financial incentives are offered in rural areas, Millennial doctors often prefer an urban life that connects them to a larger network of young professionals and social engagements with peers.

In summary, the main factors leading to physician shortages are shifts in physician and patients' populations, challenges in recruiting clinicians to rural communities, limits on medical school and residency programs, and for primary care physicians in particular, the list includes having lower salaries and higher rates of burnout and depression. With this in mind, given the severe clinician shortages facing our nation and millions of underserved Americans, in both rural and urban communities, the need for Congressional action to address this issue is more urgent than ever before.

## Recommendations for Congress

**Fund the National Health Service Corps in the amount of $965.6 million in FY24 to support scholarships and loan repayment to clinicians in return for practicing in underserved areas.** In 2022, NHSC programs made it possible for 20,215 clinicians to practice in underserved communities, but mandatory and discretionary funding for NHSC is set to expire in FY23.

Unfortunately, funding for the Corps has decreased by nearly $220 million in for FY23 when compared to the previous year. As our country faces a massive health workforce shortage, Congress must do everything possible to sustain the critical growth in the Corps necessitated by the pandemic and supported via the American Rescue Plan.

| | FY 20 | FY 21 | FY 22 | FY 23 | FY24 |
|---|---|---|---|---|---|
| **Total NHSC Funding** | $430M | $749M* | $783.6M** | $564.6M | $965.6M (ACU's proposed funding) |
| **ARP Funds** | N/A | $319M | $352M | $129M | N/A |
| **Mandatory Funds** | $310M | $310M | $310M | $310M | $790M |
| **Discretionary Funds** | $120M | $120M | $121.6M | $125.6M | $175.6M |
| | | | | | |
| Scholarship Program (SP) (% of eligible applicants funded) | 11.6% | 60.1% | 46.7% | Less than FY22*** | N/A |
| Loan Repayment Program (LRP) (% of eligible applicants funded) | 66.1% | 86.2% | 71.2% | Less than FY22*** | N/A |

## Notes for NHSC Funding Table

By the end of FY23: (1) ARP funds for the NHSC will be exhausted; and (2) Mandatory funding for the NHSC ends.

*In March 2021, the American Rescue Plan Act of 2021 provided a one-time appropriation of $800 million for the NHSC.

**In October of 2021, HRSA awarded a total of nearly $100 million in additional American Rescue Plan funds for the NHSC's State Loan Repayment Program (SLRP). In FY22, the SLRP received those funds, which are expected to be spent over the next three years (FY22-24).

***In FY 2023, the majority of funding will provide for the continuation of the significant ARP-funded new placements that were awarded in FY2021 and 2022, and, therefore, will leave less funds available to support new loan repayment awards resulting in a reduced Field Strength.

## NHSC Immediate and Long-Term Funding Recommendation

Community health centers are poised to serve millions of additional patients, but this is dependent on critical investments and expansion of NHSC funding to both stabilize and grow the Corps' capacity and field strength of clinicians. Long-term funding for loan repayment programs within NHSC is vital for sustaining effective recruitment and retention strategies within community health centers that cannot afford to take a step backwards and further batter an already weary workforce.

This is why ACU recommends that Congress extend mandatory funding of the NHSC program for another five years. The duration and dependability of long-range funding for the NHSC has a direct impact on recruitment and retention as medical graduates, and practicing clinicians are more likely to apply for the NHSC program if funding is guaranteed for multiple years. To address

and keep pace with the increasing need and projected clinician workforce shortages, ACU recommends that funding be increased annually over the five-year period of FY24-FY28, from $965.6 million to $1.41 billion:

- FY24 (965.6 million)
- FY25 ($1.06 billion)
- FY26 ($1.17 billion)
- FY27 ($1.29 billion)
- FY28 ($1.41 billion)

## Bipartisan Legislation in the 118th Congress

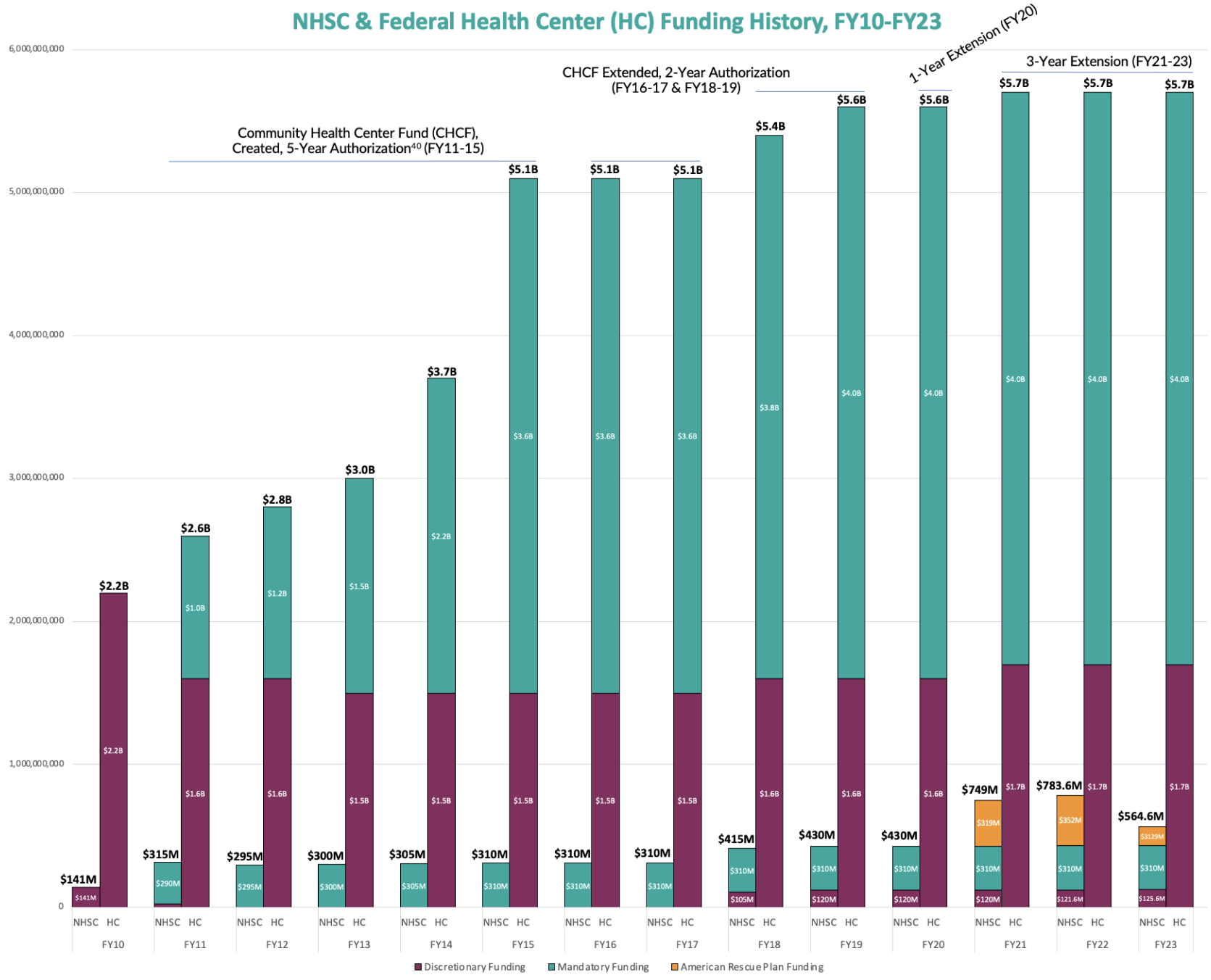
ACU recommends swift passage of S.862, the *Restoring America's Health Care Workforce and Readiness Act.* Introduced by Senators Dick Durbin (D-IL) and Marco Rubio (R-FL), this bill would include a three-year reauthorization that doubles the NHSC's mandatory funding from $310 million up to $625 million in FY24. Funding would then increase again in the following years to $675 million in FY25 and $825 million in FY26. ACU is proud to have been the lead endorsing organization for this legislation, having played a critical role in negotiations for crafting the bill.

## Funding Relationship Between NHSC and the Health Center Program

The Affordable Care Act (ACA) permanently reauthorized both the NHSC and Health Center Program by creating a new mandatory funding source, the Community Health Center Fund (CHCF). Unfortunately, funding for the NHSC has not kept pace with the Health Center (HC) program, which has grown considerably. During the first five years of the CHCF, NHSC funding saw less than a 10% increase in spite of increased need, from $290 million to $310 million, while the HC program increased more than 50% from $2.6 billion to 5.1 billion. Since HCs are the majority of NHSC grantees and have continued to grow, the impact of flat funding for the NHSC has a direct implication on their ability to continue to recruit and retain clinicians.

Furthermore, a 2021 study discovered that the use of NHSC clinicians is an effective approach to improving the capacity of CHCs by increasing medical and behavioral health care visits without increasing costs of services in CHCs, including rural health centers.[38] On average, NHSC clinicians significantly reduced costs by $3.55 of behavioral health care costs per visit in CHCs and was associated with a larger reduction of $7.95 in rural CHCs specifically.[39] This study also found that while NHSC primary care clinicians did not significantly increase costs of service, non-NHSC clinicians increased primary medical care costs by $0.66 per visit.

**The value and importance of the NHSC to the Health Center program cannot be overstated.** The fact that funding for the NHSC has not kept pace with that of the Health Center program hinders health center ability to recruit and retain providers and has only worsened as the workforce crisis was exacerbated through the COVID-19 pandemic. At a time when healthcare workforce challenges are more severe than ever before and our ability to retain the existing workforce is more fragile than any other time, the need to invest in NHSC has never been more critical.




* The one-time appropriation of $800 million for the NHSC will be exhausted by the end of FY23. Therefore, any proposal for flat funding in FY24 will result in an overall decrease in total NHSC funding for a second consecutive year.

## CONCLUSION

The NHSC has a fifty-year legacy of national impact—supporting clinicians who are caring for medically underserved patients in health centers in every single state in the country, as well as on Indian reservations and in correctional facilities. The NHSC has been a particularly vital program given the lack of access and needs for medical, mental/behavioral, and oral health care services in both rural and urban health professional shortage areas throughout the United States. According to the U.S. Department of Health and Human Services Health Resources and Services Administration's (HRSA) report to Congress on the NHSC for the year 2021, around 84% of NHSC clinicians who complete their service continue to practice in a federally designated HPSA up to one year later (a 3% increase compared to the 2019 report).[41] Further, 86% of NHSC clinicians who completed their service between 2012 and 2020 are either still in a HPSA, or have remained at the NHSC site where they served even if it no longer qualifies as a HPSA (a 1% increase compared to the 2019 report).[42] Nevertheless, the NHSC's current field strength is but a fraction of the more than 36,800 primary care, mental health, and dental health providers necessary to fully meet the needs of all HPSAs.[43]

Additionally, the NHSC has a proven track record of addressing workforce shortages, increasing diversity, and driving health equity. As stated earlier, 31% of the nation's total population identifies as Black or Hispanic/Latinx. This same population only represents 7% of physicians in the U.S. However, roughly 25% of physicians serving through the NHSC identify as Black or Hispanic/Latinx, a key indication that the NHSC is successfully driving clinician diversity. Over the past two decades, major studies such as the Institute of Medicine report *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care* revealed that racial/ethnic disparities in healthcare do exist.[44] One key recommendation stated that a more diverse workforce is needed to address health and healthcare disparities. Expanding the NHSC program, both loan repayment and scholarship, will help address racial and ethnic disparities in health outcomes and increase the representation of these communities in healthcare professions.

In the first year under the American Rescue Plan, nearly 1,200 new NHSC scholarships were awarded, which quadrupled the number of awards from the previous year. More funding for the NHSC has a direct impact by increasing the number of clinicians serving in underserved communities. However, if mandatory and discretionary funding levels don't receive increases in FY24 and in the years to come, only a small portion of Loan Repayment and Scholarship applicants will be granted awards, particularly once American Rescue Plan funds run out in FY23.

Without long-term, sustainable funding to accommodate the existing and growing need, underserved areas across the country which can least afford to deal with additional strains and shortages in their clinical workforce may reach a breaking point. Now more than ever, it is crucial to continue funding and expanding the NHSC to ensure access to care for millions of people living in medically underserved and health professional shortage areas.

## AUTHOR

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Jordan graduated from Davidson College in 2017, majoring in Biology with a minor in Gender & Sexuality studies. He then earned his Master of Public Health degree with a concentration in Health Policy and Management from George Washington University in May 2022; and achieved his Wharton Public Policy Certificate from the University of Pennsylvania in September 2022. Jordan began his career on Capitol Hill working for Senate Leader Chuck Schumer from August 2018 to February 2021. Next, he served as a legislative correspondent for Senator Tom Carper, covering health, education, and labor issues. As of May 2022, Jordan serves as the Deputy Director of Policy and Advocacy for the Association of Clinicians for the Underserved (ACU), where he advocates on behalf of the nation's clinical and non-clinical workforce. He has the pleasure of centering their policy and advocacy efforts to improve the health of underserved communities and to support those clinicians who choose to serve them.

## ABOUT OUR ORGANIZATION

Founded by alumni and members of the National Health Service Corps (NHSC) in 1996, the Association of Clinicians for the Underserved (ACU) is committed to educating, encouraging, and enabling healthcare providers of all backgrounds to practice in underserved communities across the country. The organization engages providers early in their clinical careers, helping to place them in safety net organizations that provide guidance and experience, while simultaneously serving those communities in need. For more than a decade, ACU has been the leading advocacy voice for the NHSC program, specifically leading efforts to secure enhanced support and resources for the growth and expansion of the Corps. Learn more at clinicians.org.

ACU also provides training, tools, and other resources on clinical workforce recruitment and retention for health centers. Learn more about our Solutions, Training, and Assistance for Recruitment and Retention (STAR$^2$ Center) at chcworkforce.org.

# Work Cited


[1] Health Resources and Services Administration (HRSA), "National Health Service Corps Scholarship Program School Year 2023-2024 Application & Program Guidance," (*HRSA.gov*, March 2023). https://nhsc.hrsa.gov/sites/default/files/nhsc/scholarships/scholarship-application-guidance.pdf.

[2-3] Department of Health and Human Services (HHS), "HRSA FY 2023 Budget Request: Justification of Estimates for Appropriations Committees," (*HRSA.gov*, March 2022). https://www.hrsa.gov/sites/default/files/hrsa/about/budget/budget-justification-fy2023.pdf.

[4-6] HRSA | National Health Service Corps (NHSC), "NHSC - Mission, Work, and Impact." (*HRSA.gov*, Date Last Reviewed: January 2023). https://nhsc.hrsa.gov/about-us.

[7] United States Census Bureau, "Quick Facts | United States," (*Census.gov*, Date Accessed: December 2022). https://www.census.gov/quickfacts/fact/table/US/POP010220.

[8] Association of American Medical Colleges (AAMC), "Diversity in Medicine: Facts and Figures 2019," (AAMC, July 2019). https://www.aamc.org/data-reports/workforce/interactive-data/figure-18-percentage-all-active-physicians-race/ethnicity-2018.

[9-12] HRSA, "Bureau of Health Workforce Field Strength and Students and Trainees Dashboards," (*HRSA.gov*, Data as of 9/30/2022). https://data.hrsa.gov/topics/health-workforce/field-strength.

[13] HRSA | National Health Service Corps (NHSC), "NHSC - Mission, Work, and Impact," (*HRSA.gov*, Date Last Reviewed: January 2023). https://nhsc.hrsa.gov/about-us.

[14] "Text - H.R.3590 - 111th Congress (2009-2010): Patient Protection and Affordable Care Act," (*Congress.gov*, Library of Congress, March 2010). https://www.congress.gov/bill/111th-congress/house-bill/3590/text.

[15] Congressional Research Services (CRS), "The National Health Service Corps," (*Congress.gov*, CRS Reports, Updated January 2022). https://crsreports.congress.gov/product/pdf/R/R44970/15.

[16] "Text - H.R.2 - 114th Congress (2015-2016): Medicare Access and CHIP Reauthorization Act of 2015," (*Congress.gov*, Library of Congress, April 2015). https://www.congress.gov/bill/114th-congress/house-bill/2/text.

[17] "Text - H.R.1892 - 115th Congress (2017-2018): Bipartisan Budget Act of 2018," (*Congress.gov*, Library of Congress, February 2018). https://www.congress.gov/bill/115th-congress/house-bill/1892/text.

[18] "Text - H.R.1625 - 115th Congress (2017-2018): Consolidated Appropriations Act of, 2018," (*Congress.gov*, Library of Congress, March 2018). https://www.congress.gov/bill/115th-congress/house-bill/1625/text.

[19] "Text - H.R.6157 - 115th Congress (2017-2018): Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019 and Continuing Appropriations Act, 2019," (*Congress.gov*, Library of Congress, September 2018). https://www.congress.gov/bill/115th-congress/house-bill/6157/text.

[20] "Text - H.R.1865 - 116th Congress (2019-2020): Further Consolidated Appropriations Act, 2020," (*Congress.gov*, Library of Congress, December 2019). https://www.congress.gov/bill/116th-congress/house-bill/1865/text.

[21] "Text - H.R.133 - 116th Congress (2019-2020): Consolidated Appropriations Act, 2021," (*Congress.gov*, Library of Congress, December 2020). https://www.congress.gov/bill/116th-congress/house-bill/133/text.

[22] "Text - H.R.2471 - 117th Congress (2021-2022): Consolidated Appropriations Act, 2022," (*Congress.gov*, Library of Congress, March 2022). https://www.congress.gov/bill/117th-congress/house-bill/2471/text.

[23] "Text - H.R.2617 - 117th Congress (2021-2022): Consolidated Appropriations Act, 2023," (*Congress.gov*, Library of Congress, December 2022). https://www.congress.gov/bill/117th-congress/house-bill/2617/text.

[24] "H.R.748 - 116th Congress (2019-2020): CARES Act," (*Congress.gov*, Library of Congress, March 2020). https://www.congress.gov/bill/116th-congress/house-bill/748.

[25] "Text - H.R.133 - 116th Congress (2019-2020): Consolidated Appropriations Act, 2021," (*Congress.gov*, Library of Congress, December 2020). https://www.congress.gov/bill/116th-congress/house-bill/133/text.

[26] "Text - H.R.1319 - 117th Congress (2021-2022): American Rescue Plan Act of 2021," (*Congress.gov*, Library of Congress, March 2021). https://www.congress.gov/bill/117th-congress/house-bill/1319/text.

[27] Congressional Research Services (CRS) "The National Health Service Corps," (*Congress.gov*, CRS Reports, Updated January 2022). https://crsreports.congress.gov/product/pdf/R/R44970/15.

[28] HRSA | National Health Service Corps (NHSC), "State Loan Repayment Program Awards," (*HRSA.gov*, Date Last Reviewed: September 2022). https://nhsc.hrsa.gov/loan-repayment/state-loan-repayment-program/awards.

[29-31] HRSA, "Bureau of Health Workforce Program Applicant Dashboards," (*HRSA.gov*, Data as of 9/30/2022). https://data.hrsa.gov/topics/health-workforce/applicant-dashboards.

[32] HRSA, "FY 2022 NHSC Program Funding," (HRSA.gov, Date Last Reviewed: November 2022). https://nhsc.hrsa.gov/fy22-nhsc-field-strength-funding.

- As it relates to the NHSC FY22 funding, the more than $651 million highlighted on the NHSC website is the sole dedication by HRSA to recruitment and NHSC awards for health professionals and students. This amount does not take into account HRSA's expense to administer the NHSC programs. Hence, the funding amount of program components near to $751 million.

[33] Association of American Medical Colleges (AAMC), "New AAMC Report Confirms Growing Physician Shortage," (AAMC, June 2020). https://www.aamc.org/news-insights/press-releases/new-aamc-report-confirms-growing-physician-shortage.

[34] HRSA, "Health Workforce Shortage Areas," (*HRSA.gov*, Data as of 3/17/2023). https://data.hrsa.gov/topics/health-workforce/shortage-areas.

[35] Association of American Medical Colleges (AAMC), "Physician Specialty Data Report," (AAMC, December 2021). https://www.aamc.org/data-reports/workforce/interactive-data/active-physicians-age-specialty-2021.

[36] Association of American Medical Colleges (AAMC), "U.S. medical school enrollment rises 30%," (AAMC, July 2019). https://www.aamc.org/news-insights/us-medical-school-enrollment-rises-30.

[37] Med Edits Medical Admissions, "Medical School Acceptance Rates, Admissions Statistics + Average MCAT and GPA for Every Medical School (2023-2024)," (Med Edits Medical Admissions, Accessed January 2023). https://mededits.com/medical-school-admissions/statistics/.

[38-39]Han X, Pittman P, Ku L, "The Effect of National Health Service Corps Clinician Staffing on Medical and Behavioral Health Care Costs in Community Health Centers," *Medical Care* (October 2021) Vol. 59(5):428-433. https://pubmed.ncbi.nlm.nih.gov/34524239/.

[40]National Association of Community Health Centers (NACHC), "Federal Health Center Appropriation History, FY10-FY22," (NACHC, May 2022). www.nachc.org/focus-areas/policy-matters/health-center-funding/federal-grant-funding/.

[41-42] HHS, "Report to Congress: National Health Service Corps for the Year 2021," (*HRSA.gov*, December 2021). https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/about-us/reports-to-congress/report-congress-nhsc-2021.pdf (PDF file).

- https://bhw.hrsa.gov/about-us/reports-congress (lists the Bureau of Health Workforce (BHW) reports to Congress on program activities and accomplishments for FY20 & 21).

[43] HRSA, "Health Workforce Shortage Areas," (*HRSA.gov*, Data as of 3/17/2023). https://data.hrsa.gov/topics/health-workforce/shortage-areas.

[44] Nelson A., "Unequal treatment: confronting racial and ethnic disparities in health care," *Journal of the National Medical Association* (August 2002) Vol. 94(8):666-8. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2594273/?page=1.