



maryland
health services
cost review commission

Nurse Support Program I

Annual Report on FY 2022 Activities

July 2023

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Introduction

Maryland's unique Nurse Support Program I (NSP I) was designed to address the short-and long-term issues of recruiting and retaining nurses in acute care hospitals. More than \$250 million in funds have been provided to hospitals in rates to support the NSP I initiatives since the program was implemented in June 2001. In May 2022, HSCRC Commissioners voted to approve NSP I as a permanent program with the requirement that HSCRC provide annual reports on funded activities and accomplishments. This report summarizes NSP I activities and performance against program metrics during Fiscal Year (FY) 2022.

Background

In 2010, the Institute of Medicine (IOM) published a groundbreaking report which laid out eight recommendations to address the increasing demand for high quality and effective healthcare services and provided an action-oriented blueprint for the future of nursing. The HSCRC incorporated four of the recommendations into the scope of the NSP I program:

- IOM Recommendation 3: Implement nurse residency programs.
- IOM Recommendation 4: Increase the proportion of nurses with a baccalaureate degree to 80 percent by 2020.
- IOM Recommendation 6: Ensure that nurses engage in lifelong learning.
- IOM Recommendation 7: Prepare and enable nurses to lead change to advance health.

Incorporating the four recommendations from the IOM, the NSP I program focuses on three main areas to provide support and training for Maryland nurses:

1. **Education and Career Advancement.** This area includes initiatives that increase the number of advanced degree nurses, preparing them as future leaders; recruitment and retention of newly licensed nurses through nursing residency programs, and supporting nursing students and experienced RNs who are re-entering the workforce after an extended leave.
2. **Patient Quality and Satisfaction.** This area includes lifelong learning initiatives such as certification and continuing education linked to improved nursing competency and patient outcomes.
3. **Advancing the Practice of Nursing.** These activities in this area advance the nursing practice, for example, nurse-driven evidenced-based research; innovative organizational structures for clinical nurses to have a voice in determining nursing practice, standards, and quality of care; and American Nurses Credentialing Center's (ANCC) Magnet®, and Pathway to Excellence programs demonstrating nursing excellence.

With input from the NSP I Advisory Committee, staff developed nursing and organizational metrics to assess hospitals' progress in achieving these program aims. Performance against those metrics is provided later in this report.

FY 2022 Programs & Activities

NSP I funds a core set of programs within all acute care hospitals that support the IOM recommendations outlined above. Hospitals select program priorities and implement one to several of the below programs to grow and advance their nursing workforce. Funded programs include:

1. **Continuing Education (Internal & External):** Funding supports education on a variety of subjects, including evidence-based practices, patient safety, disaster preparedness, quality indicators, patient experience, and workplace violence. These education opportunities may be offered internally within the hospital or externally through conferences hosted by leading organizations in the nursing field. Continuing education hours are increasingly provided online and are self-paced for participants.
2. **Leadership, Preceptorship, Mentorship Programs:** Funding supports regular training (e.g., workshops and quarterly education sessions) for nurses to develop key leadership skills necessary for building positive workplaces. These programs also provide coaching for nurses to become preceptors and mentors which are critical to new nurses and the nurse residency program. Additionally, funding may support preceptor and mentor positions. Funded mentor and preceptor roles may be of particular value to hospitals that have retiring nurses but want to retain their expertise as new staff are trained and grow in their roles.
3. **Nurse Residency Program for Newly Licensed Registered Nurses (RNs):** The Nurse Residency Program is a one-year program which provides the support, acquisition of knowledge, skills and attitudes necessary to successfully transition nursing students into clinical settings and develop core competencies in nursing. Nurse residents attend lectures from clinical experts, participate in one-to-one clinical preceptorship, and conduct a one-year research project to advance nursing. NRP is a critical program needed to guide acquisition of new competencies which are necessary to promote safe practice and individual growth and development of new nurses.
4. **Nursing Student Programs:** Funding may support tuition assistance for hospital employees pursuing nursing degrees towards RN licensure. Funding may also support externship programs for nursing students and short-term employment of nursing students.
5. **Professional Advancement Programs:** Funding can support the development or implementation of professional advancement programs.

6. **Professional Certification:** Funding supports tuition for certification preparatory courses, including specialty-specific certification programs. In addition to education programs, funding may provide reimbursement for certification exam fees.
7. **Projects to Build Nursing Science:** Funding supports research projects and assistance with evidence-based projects. This can include purchasing access to academic journals on nursing and the procurement of simulation equipment and training. Additionally, funding can support research coordinator positions to collaborate with nurse residents on building research skills, designing evidence-based projects, and other research-based learning endeavors. Funding may also be used to obtain external subject matter expertise. In many cases, hospitals set goals to publish research findings in peer-reviewed journals.
8. **RN Advanced Nursing Degree Programs:** NSP I funding provides tuition assistance for nurses pursuing advanced degrees, particularly BSNs and MSNs. In addition to tuition assistance, funding may also support one-on-one counseling, assistance with the application process, and other academic support for RNs pursuing advanced degrees.
9. **Shared Governance:** Funding supports nursing shared governance which is shared decision making between the bedside nurses and nurse leaders. Areas included in shared governance are decisions made on resources, nursing research/evidence-based practice projects, new equipment purchases, and staffing. This type of shared process allows for active engagement throughout the healthcare team, which promotes positive patient outcomes while creating a culture of positivity and inclusion that leads to greater job satisfaction.
10. **Transition to New Nursing Leadership Roles:** Funding supports formal leadership programs and bootcamps to build leadership competency for nurses that are new to leadership roles in the hospital.
11. **Transition to Specialty Practice Programs for Newly Licensed and Experienced RNs:** Funding supports learning programs and orientation transition programs for newly licensed or experienced RNs entering into specialty units and departments, including the emergency department (ED), intensive care unit (ICU), oncology (ONC), and operating room (OR).
12. **Nursing Excellence Programs:** Designation as a nursing center of excellence indicates the organization has created a “positive work environment allowing nurses to continually advance and flourish”. Programs include Magnet® and Pathway to Excellence®. NSP I supports nursing education about nursing excellence programs and innovative projects to achieve Magnet or Pathway to Excellence.

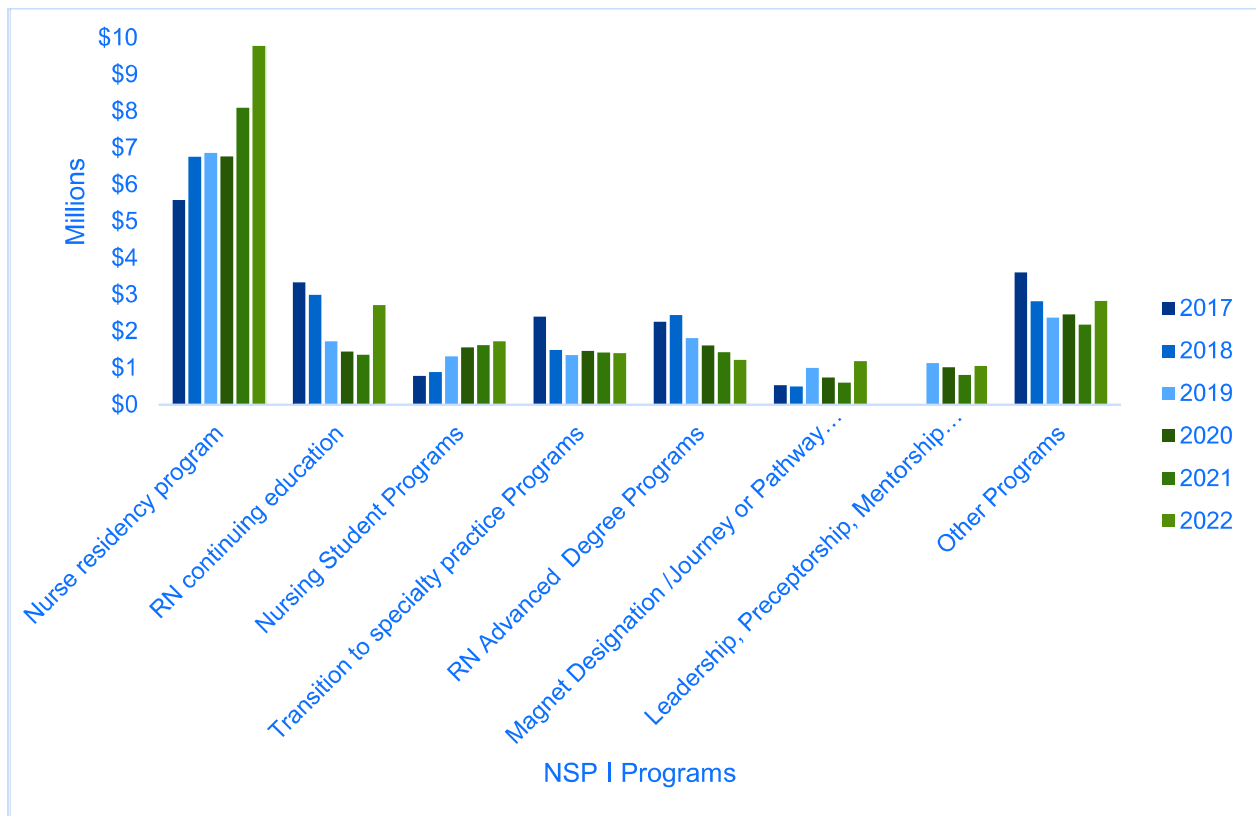
In FY 2022, all hospitals prioritized supporting new entrants to the nursing workforce by implementing a nurse residency program for newly licensed RNs. Additionally, many hospitals provided leadership, preceptorship, and mentorship programs, as well as nursing student programs. Professional advancement

was another key focus, as many hospitals funded continuing education and advanced degree programs for current staff. The collective focus on education and career advancement is expected given nursing workforce shortages and the urgent need to attract and retain new and experienced staff.

Expenditures

In FY 2022, HSCRC issued \$19.1 million in total funding to acute care hospitals. During FY 2020-FY 2022, NSP I participants were allowed to carry over unspent funds from prior years due to implementation delays and challenges caused by COVID-19. Hospitals spent approximately \$21.9 million using FY 2022 funds and COVID roll-over funding. The top funded programs in FY 2022 included 1) nurse residency programs, 2) RN continuing education, 3) nursing student programs, 4) transition to specialty practice programs, 5) RN advanced degree programs, 5) Magnet designation and Pathway to Excellence programs, and 6) leadership, preceptorship, and mentorship programs. Figure 1 and Table 1 show program expenditures from FY 2017 through FY 2022.

Figure 1. NSP I Program Expenditures, FY 2017 - 2022



Source: Hospital NSP I Annual Reports

Table 1. NSP I Program Expenditures, FY 2017 - 2022

NSP I Programs	2017	2018	2019	2020	2021	2022
Nurse residency program	\$5,574,572	\$6,754,291	\$6,860,202	\$6,764,270	\$8,095,171	\$9,775,301
RN continuing education	\$3,332,324	\$2,990,325	\$1,727,520	\$1,450,660	\$1,362,360	\$2,711,942
Nursing Student Programs	\$786,956	\$889,039	\$1,316,756	\$1,562,583	\$1,620,120	\$1,728,939
Transition to specialty practice Programs	\$2,397,140	\$1,494,908	\$1,354,607	\$1,460,928	\$1,420,664	\$1,402,766
RN Advanced Degree Programs	\$2,255,675	\$2,441,827	\$1,812,569	\$1,615,189	\$1,433,681	\$1,219,601
Magnet Designation /Journey or Pathway to Excellence	\$533,210	\$498,696	\$1,002,797	\$737,416	\$596,476	\$1,183,548
Leadership, Preceptorship, Mentorship Programs			\$1,133,456	\$1,021,250	\$809,386	\$1,051,685
Other Programs	\$3,607,854	\$2,815,687	\$2,373,633	\$2,456,528	\$2,177,543	\$2,823,986
Total Spending	\$18,487,731	\$17,884,773	\$17,581,540	\$17,068,824	\$17,515,401	\$21,897,768

Source: Hospital NSP I Annual Reports

Performance Results

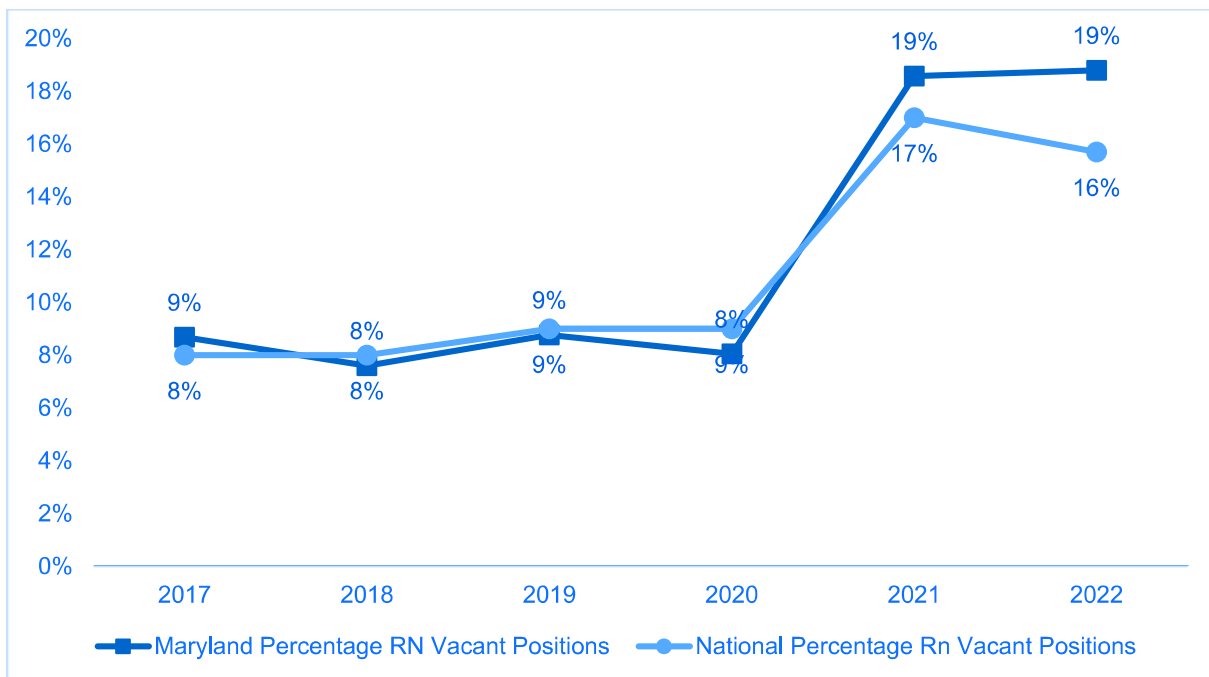
All participating hospitals submit data on a series of key metrics, which include, but are not limited to:

- Vacancy and Retention Rates
- Number of Nurses with BN and Advanced Degrees
- Enhanced Diversity

Vacancy, Turnover, & Retention Rates¹

Maryland hospital RN vacancy rate (19 percent) is currently above the nation (16 percent), which experienced a small decline in 2022 (Figure 2). The decrease in the national vacancy rate versus the stagnant vacancy rate in Maryland over the last two years may partially be attributed to difficulty in recruiting. The RN Recruitment Difficulty Index (RDI-RN) measures the average number of days hospitals take to recruit and hire an RN. According to National HealthCare Retention and RN Staff Report by Nursing Solutions Inc. (NSI), the North-East Region has the largest recruitment difficulty in the nation, taking 107 days on average to recruit and fill a position, whereas the national RDI-RN is 95 days.²

Figure 2. Registered Nurse Vacancy Rate in Hospitals, MD vs. Nation, 2017 - 2022



Source: Hospital NSP I Annual Reports, NSI Nursing Solutions

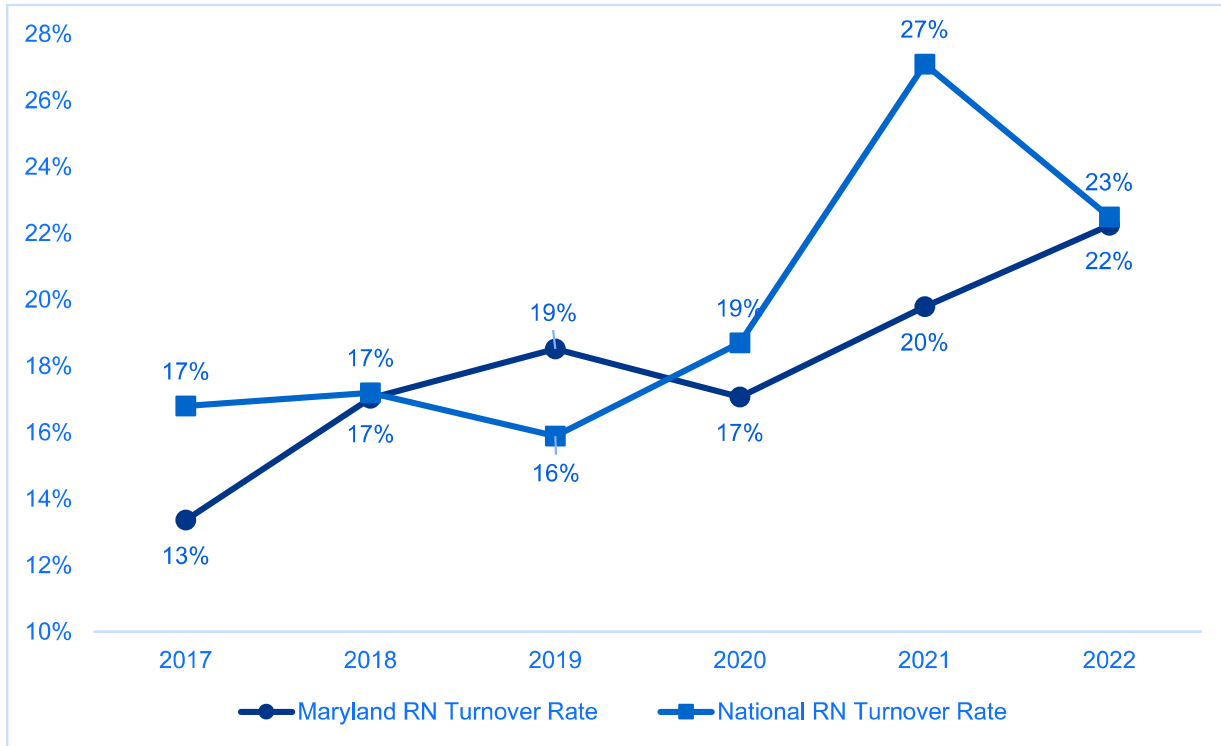
While Maryland's RN vacancy rate in FY 2022 was above the nation in FY 2022, the Maryland RN turnover rate remains below the nation, despite increases the prior two fiscal years, shown in Figure 3.

¹ All national statistics cited for vacancies and retention data are derived from the National HealthCare Retention and RN Staffing Report, which is an annual national survey of approximately 192 facilities from 32 states.

² Nursing Solutions Inc. (2023) 2023 NSI National Healthcare Retention and RN Staffing Report.

https://www.nsinursingsolutions.com/Documents/Library/NSI_National_Health_Care_Retention_Report.pdf Accessed May 16, 2023.

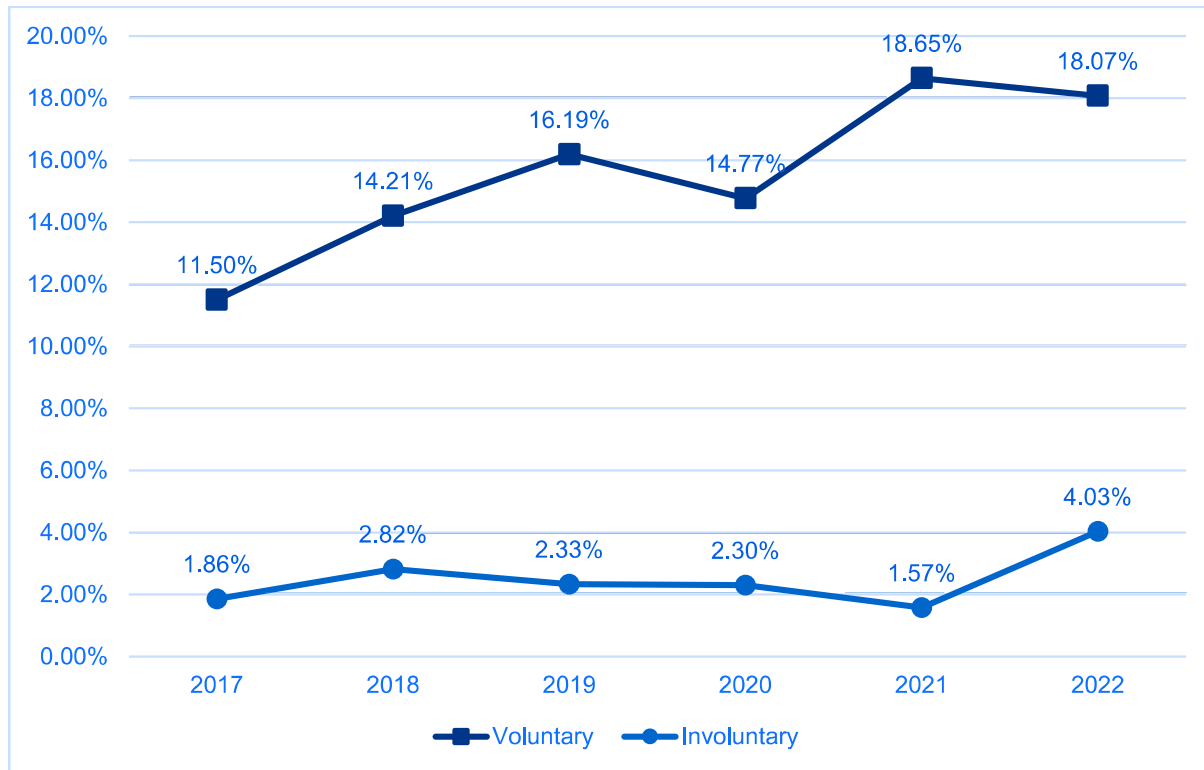
Figure 3. Hospital RN Turnover Rate, MD vs. Nation, FY 2017-FY 2022



Source: Hospital NSP I Annual Reports, NSI

As shown in Figure 4, voluntary departures in FY 2022 remained relatively stagnant since the prior year but have increased significantly since FY 2020. Involuntary terminations increased from 1.85 percent between FY 2017 and FY 2022, respectively, with the most significant increase between FY 2021 and FY 2022.

Figure 4. RN Turnover Rate, Voluntary & Involuntary, FY 2017 - FY 2022

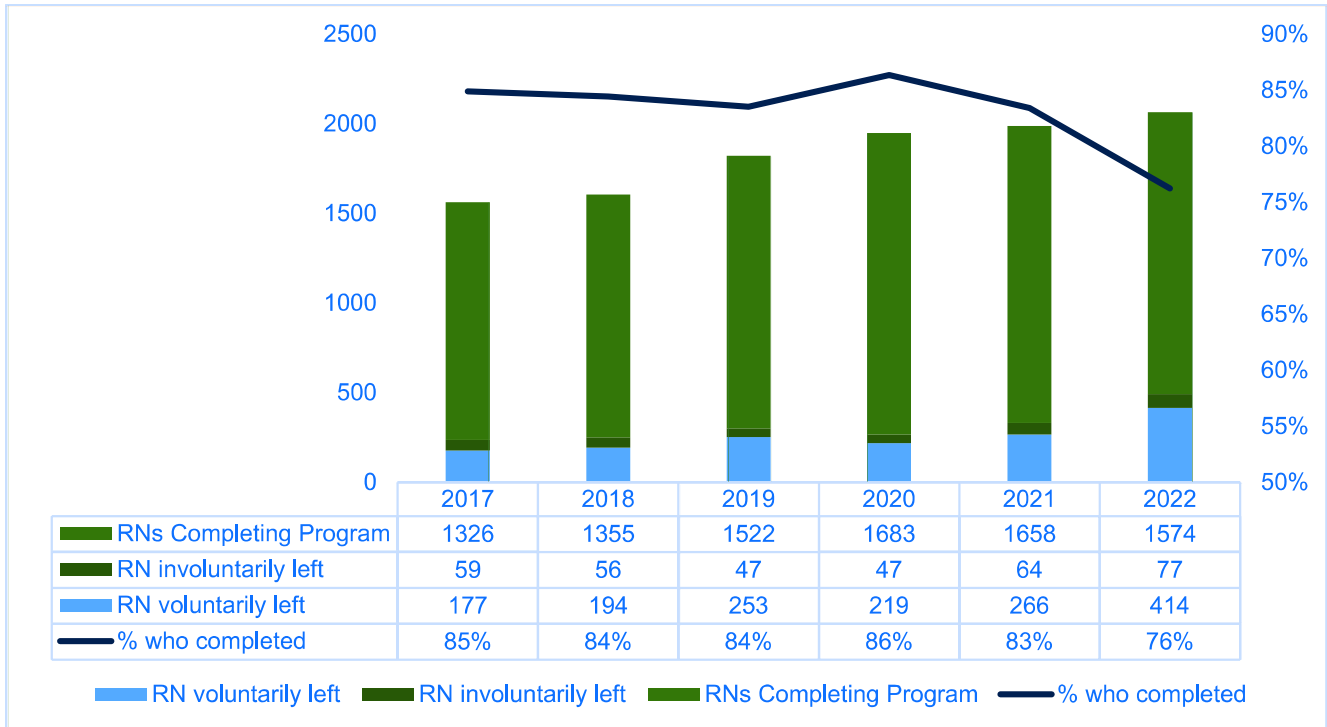


Source: Hospital NSP I Annual Reports

More insight is necessary to determine the growth of involuntary termination over the prior fiscal year, but improved educational programs and opportunities will likely provide significant value to help curtail this growth.

A key strategy to support new nurse retention is nurse residency programs. All NSP I hospitals implement nurse residency programs and report that they are an essential tool in training and retaining new nurses at hospitals. As shown in Figure 5, the completion rates for RNs completing residency programs declined by 7 percentage points to 76 percent in FY 2022, since the prior fiscal year.

Figure 5. RNs Participating and Completing Residency Program, FY 2017 -2022



The decline in completion rates is due primarily to growth in voluntary departures. Voluntary departures grew from 11 percent in FY 2017 to 20 percent in FY 2022. New nurses may be leaving for a variety of reasons including but not limited to: 1) opting to shift to travel jobs with higher pay, 2) shifting to positions in less stressful clinical settings, and 3) residual impacts of insufficient clinical training during the pandemic.

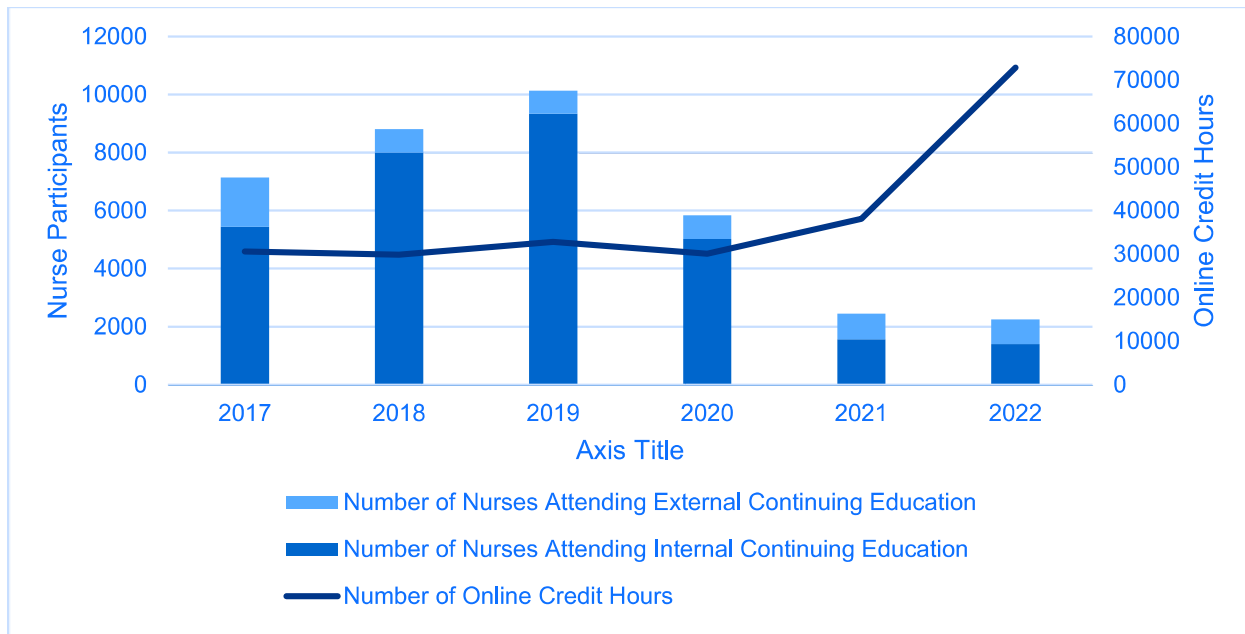
Many hospitals have cited the limited clinical experiences during nursing school as a key driver of the voluntary NRP departures. Safety concerns and the strain on hospital resources due to the pandemic necessitated halting on-site student clinical experiences in March 2020. To help address the impact of limited clinical training, Maryland hospitals and academics formed a committee to build a curriculum for a Transition to Nurse Residency Program (TNRP). The goal of TNRP is to restore the skills and competencies of new-to-practice nurses to pre-pandemic levels. The TNRP does not duplicate nor replace NRP; rather, it is a precursor to the NRP offered at onboarding and before new-to-practice nurses assume patient assignments. More than half of Maryland hospitals have implemented the program, and most are using NSP I funding to support it.

Continuing Education

Hospitals have reported a significant increase in the number of credit hours associated with continuing education. As shown in Table 1, funding for continuing education declined between FY 2017 (\$3.3 million) and FY 2021 (\$1.36 million) but increased by \$1.3 million in FY 2022 to \$2.7 million. Online credit hours in

FY 2022 increased significantly over the prior year, although the number of nurses participating decreased, potentially because of workforce shortages and that travel nurses are not eligible to participate in NSP I initiatives. The large growth in online credit hours can be attributed to an increased focus on in-house education as external opportunities were limited during the pandemic. Many external conferences that hospital nursing staff frequented prior to the pandemic have not resumed, so hospitals have reported increasing online education efforts.

Figure 6. Continuing Education Participants and Online Credit Hours, FY 2017 - 2022

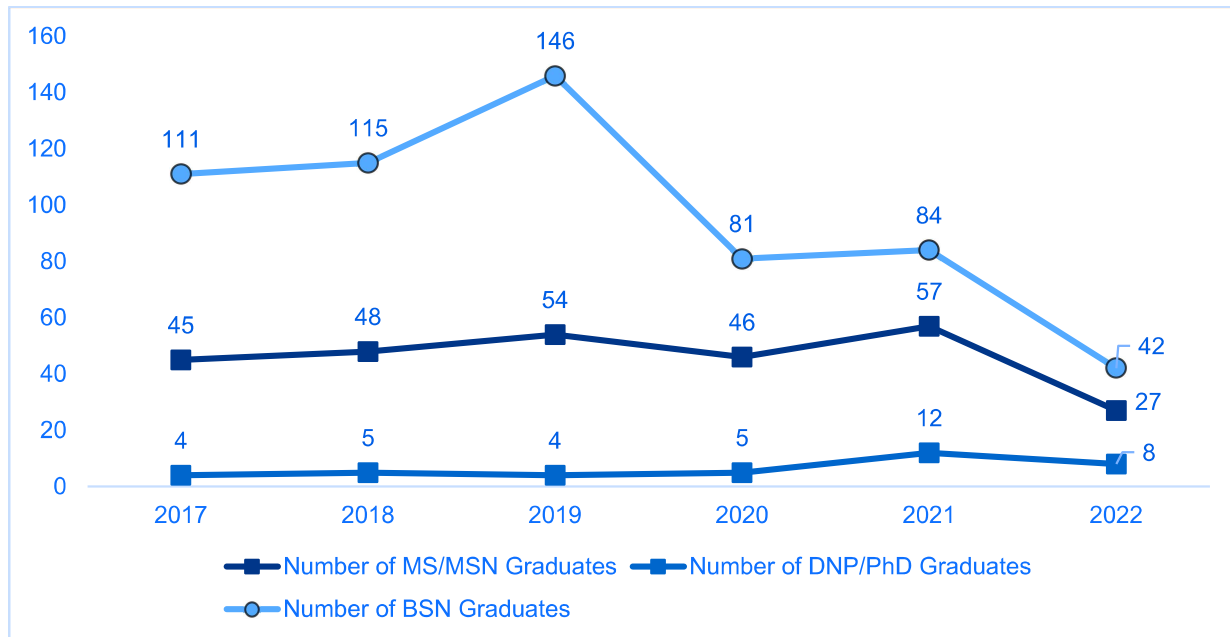


Number of Nurses with BN and Advanced Degrees

Another key goal of the IOM recommendations was to increase the number of nurses with advanced degrees. Strong research evidence has linked lower mortality rates, fewer medication errors, and positive outcomes to nurses prepared at the baccalaureate and graduate degree levels.³ Quality patient care hinges on a well-educated, highly functioning, motivated nursing workforce. Figure 7 shows the number of BSN, MS/MSN, and DNP/PhD degrees funded by NSP I between FY 2017 and FY 2022.

³ Institute of Medicine (US) Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing, at the Institute of Medicine. *The Future of Nursing: Leading Change, Advancing Health*. Washington (DC): National Academies Press (US); 2011. 4, Transforming Education. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK209885/>

Figure 7. NSP I Funded Degree Type, FY 2017 - 2022



Between 2017 and 2019, there was a 22 percent increase in the number of hospital-based nurses holding NSP I-funded BSN and Advanced degrees. However, the decline in advanced degrees that began in 2020 during the pandemic continued through FY 2022. As shown in Table 1, funding for advanced degrees has declined since FY 2017 as hospitals have prioritized attracting and retaining new staff through nurse residency and nursing student programs, and continuing education investments to retain existing staff. HSCRC will continue to monitor efforts around advanced degrees in FY 2023 to determine if this downward trend will continue or if investment in advanced degrees will begin to rebound to pre-pandemic levels. Anecdotally, some hospitals have reported that pursuit of advanced degrees is increasing in FY 2023. However, the State continues to make steady progress to the “80 Percent BSN by 2025” goals through the NSP II Program. In FY 2021, 67 percent of RNs in Maryland hold a BSN or higher.⁴

Enhanced Diversity in the Nursing Workforce

A key recommendation of IOM is to develop initiatives to address health disparities by increasing the number of minorities and men in all nursing roles. Specifically, NSP I programs can implement initiatives to:

- Increase the number of minority and male mentors and preceptors.
- Increase the number of minority and male nurses in leadership positions.

⁴ Health Services Cost Review Commission. (2023). *Nurse Support Program II Competitive Institutional Grants Program Recommendations for FY 2024*.

- Develop recruitment strategies to target racial/ethnic minorities, particularly in areas with high minority populations.

Based on reports submitted by hospitals, there is still significant progress to be made to increase the number of minorities and males in all nursing roles. As shown in Table 2, the number of males in all nursing roles (clinical nurse, nurse manager, nurse executive) has not changed significantly since FY 2020.

Table 2. Percent of Nursing Role by Gender, FY 2020 - 2022

	Gender	2020	2021	2022
Clinical Nurses	Male	9.38%	9.68%	10.15%
	Female	90.62%	90.32%	89.85%
Nurse Managers	Male	11.55%	9.32%	12.12%
	Female	88.45%	90.68%	87.88%
Nurse Executives	Male	15.32%	9.05%	13.30%
	Female	84.68%	90.95%	86.70%

Source: Hospital NSP I Reports

There have also not been significant changes in the race and ethnicity composition of nursing roles in Maryland hospitals either, as shown in Tables 3-5.

Table 3. Percent of Clinical Nurses by Race/Ethnicity, FY 2020 - 2022

	2020	2021	2022
NH Black	21.06%	20.53%	19.50%
NH White	62.01%	61.51%	60.45%
Hispanic	2.94%	2.98%	2.80%
Native American	0.37%	0.25%	0.23%
Pacific Islander	0.38%	0.26%	0.53%
Asian	11.16%	11.65%	11.43%
Prefer not to answer	2.08%	2.80%	5.06%

Source: Hospital NSP I Reports

Table 4. Percent of Nurse Managers by Race/Ethnicity, FY 2020 - 2022

	2020	2021	2022
NH Black	18.74%	17.33%	18.62%
NH White	73.81%	74.06%	68.49%

Hispanic	0.90%	1.18%	1.28%
Native American	0.13%	0.24%	0.13%
Pacific Islander	0.26%	0.59%	0.13%
Asian	5.26%	5.54%	7.53%
Prefer not to answer	0.90%	1.06%	3.83%

Source: Hospital NSP I Reports

Table 5. Nurse Executives by Race/Ethnicity, FY 2020 - 2022

	2020	2021	2022
NH Black	13.51%	15.09%	12.88%
NH White	83.33%	80.60%	77.68%
Hispanic	0.45%	1.29%	1.29%
Native American	0.45%	0.00%	0.86%
Pacific Islander	0.00%	0.00%	0.00%
Asian	2.25%	1.72%	1.72%
Prefer not to answer	0.00%	1.29%	5.58%

Source: Hospital NSP I Reports

As hospitals have struggled with nurse vacancy and retention, stagnant performance to increase diversity in the nursing force in Maryland hospitals is not wholly unexpected. Based on FY 2022 reporting, HSCRC staff has not seen robust efforts to increase male nursing staff and recruit racial/ethnic minorities, particularly in areas with high minority populations. HSCRC staff is encouraging hospitals to prioritize diversity in recruitment efforts to better reflect the composition of their communities in FY 2024 and will report on FY 2023 efforts next year.

Ongoing Challenges

Nursing Burnout

As illustrated in Figures 2-4 above, vacancy rates and retention continue to suffer in the wake of the COVID pandemic. In a 2021 survey of 2,000 nursing staff, the Maryland Nursing Workforce Center (MNWC) found that over 40 percent of respondents experienced moderate to severe stress, were unable to control worrying, felt hopeless, and had little pleasure in usual things. Close to 50 percent of respondents indicated that they had symptoms of burnout, felt anxious, and had experienced sleep disturbances. Furthermore, about 62 percent of nurses felt their physical health and safety were compromised without their consent,

and more than 60 percent indicated an intent to leave their current nursing job.⁵ These findings are echoed across the nation.⁶ Ongoing workforce shortages and lingering effects of COVID continue to exacerbate these challenges.

Increased Reliance on Agency Nurses

Anecdotally, nurses were leaving their positions to go to competing hospitals for signing bonuses, or to agencies for better pay, better hours, and less stress.⁷ The increase in agency nurses and the resulting high turnover, creates additional burdens on staff nurses as they must constantly orient the new people. In discussions with nurses from various roles, the main complaint regarding agency nurses is they are paid significantly more than staff nurses but not responsible for regulatory reporting and other burdens that are placed on staff nurses.

As more nurses leave hospitals for agencies, a costly feedback loop is created as hospitals rely more on agencies to backfill the reduction in the workforce. The pandemic exacerbated costs to \$713 million (Figure 8) in Maryland, as reported to the HSCRC in the FY 2020 NSP Annual Reports. Nationally, most hospitals are not anticipating reducing their reliance on agency nurses, while costs continue to increase.⁸ While there was a drop in agency costs in FY 2021, suggesting a potential return to pre-pandemic spending levels, hospitals reported a significant increase in FY 2022 to \$931 million as ongoing struggles with nursing workforce shortages continue.

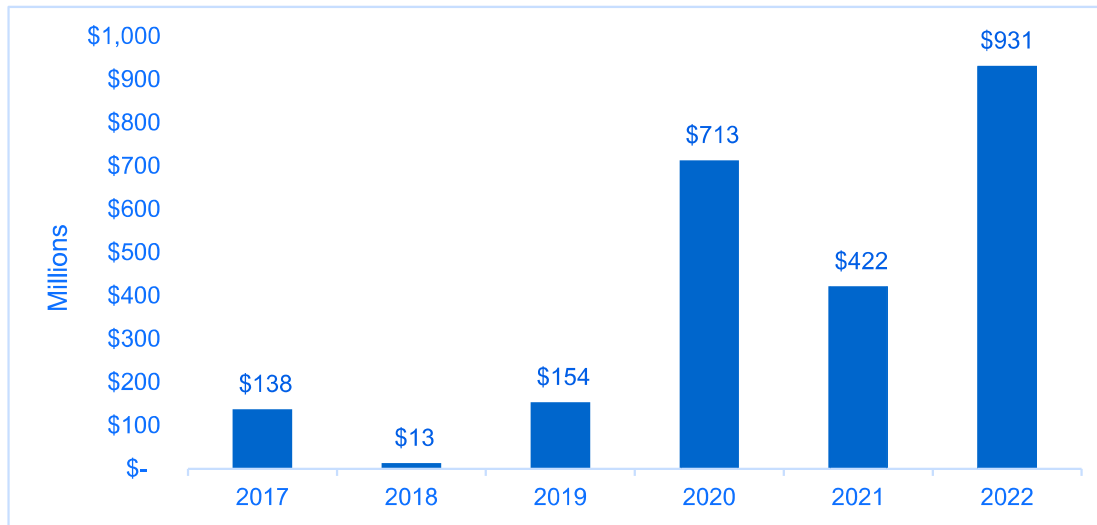
⁵ University of Maryland School of Nursing – Maryland Nursing Workforce Center. (December 2021). Analysis of COVID-19's Impact on Maryland Nursing Workforce. <https://www.nursing.umaryland.edu/media/son/mnwc/MD-survey-of-post-COVID-workforce.pdf>

⁶ Hansen, A. and Tuttas, C. (2021). Professional Choice 2020-2021: Travel Nursing Turns the Tide. [Article] www.nurseleader.com.

⁷ Vesoulis, Abby and Abrams, Abigail. Contract Nurse Agencies Are Making Big Money in the Age of COVID-19. Are They 'Exploiting' the Pandemic? Time.com, February 23, 2022. [Article]. <https://time.com/6149467/congress-travel-nurse-pay/> Accessed May 1, 2022.

⁸ Nursing Solutions Inc. (2023) 2023 NSI National Healthcare Retention and RN Staffing Report. https://www.nsinursingsolutions.com/Documents/Library/NSI_National_Health_Care_Retention_Report.pdf Accessed May 16, 2023.

Figure 8. Nursing Agency Cost to Hospitals, FY 2017 - FY 2022



Source: Hospital NSP I Reports

The substantial growth in agency costs between FY 2021 and FY 2022 can partially be attributed to significant shortages during the second and third quarters of FY 2022 when the omicron variant of COVID-19 severely strained hospital resources. To bring this number down in FY 2023, hospitals have reported creating hospital or system-owned travel agencies which has mitigated some of the high costs associated with travel agencies.

Conclusion

The NSP I Program continues to be an important resource to acute care hospitals as they seek to retain nursing staff and grow leadership potential, expand educational opportunities, and advance the practice of nursing as a whole. HSCRC staff, with the guidance of the NSP I Advisory Committee, will work to identify areas of opportunities to support the nursing workforce in Maryland hospitals and further align with NSP II funded programs and initiatives. Additionally, based on available data presented in this report, there is a demonstrated need to increase funding for the NSP I program to support education and retention efforts and enhance diversity in the nursing workforce. In future years, staff will propose an increase in funding to expand or create new NSP I programs. HSCRC staff will continue to monitor NSP I activities through ongoing reporting, meetings with individual hospitals on program progress, and data monitoring.