

The National HIV Curriculum: Howard University Partners to Strengthen the Nation's HIV Clinical Workforce

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The U.S. Department of Health & Human Services Health Resources & Services Administration (HRSA) has funded this nationwide e-Learning initiative aimed at integrating the national HIV curriculum (NHC) (IDEA, 2020) into the training curricula of health profession institutions. The focus of the plan is to strengthen existing accredited academic and training programs and curricula of multiple health profession institutions with HIV competencies. The emphasis is on nursing, medical, pharmacy, and dental programs, including graduate education/residency programs. Credit towards a healthcare degree or certificate for the healthcare professional is one expected benefit of this effort. The expected impact is an enhancement of the student's knowledge, skills, and overall HIV competence with respect to the treatment of people living with HIV (PLWH). The long-term outcome of this initiative is to enhance the quality of HIV education; and in so doing, increase the number of healthcare professionals with the capacity to treat, manage, and competently care for PLWH.

The initiative is needed because, according to the federal government, the number of HIV clinical providers is declining due to retirements and other factors. However, the demand for their services – specifically for nurses – is increasing. According to the U.S. Bureau of Labor Statistics (2020), the nursing workforce is projected to grow by about only 16% through 2024. They project the need for an additional 203,700 new registered nurses each year through 2026 (U.S. Bureau of Labor Statistics, 2020). They are needed to fill newly created positions and

to replace retiring nurses. The Affordable Care Act has also opened the healthcare door to thousands of new patients. Nurses will also be needed due to an aging population – including those living longer with HIV – and who require more care.

The national map of Health Professional Shortage Areas indicates that, in general, overall clinician shortage is particularly acute in urban areas and the Deep South where HIV prevalence is higher (HRSA, 2020). Furthermore, among the clinicians who manage PLWH, many have not received specialized training equipping them to do so effectively and efficiently. Additionally, these clinical providers do not manage sufficiently large caseloads to hone their skills in HIV treatment and care, resulting in poor patient outcomes.

Annually, there are nearly 38,000 (Centers for Disease Control and Prevention [CDC], 2020) new HIV cases nationally. Thousands more are potentially still undiagnosed. As HIV care advances, and patients do better, many are living longer with the disease. As a result, there is an increased demand for more healthcare providers. This increased demand for highly trained HIV care providers – such as nurses – has created new challenges for the healthcare system (Gilman et al., 2016). The shortage of well-trained HIV clinicians is attributed to several factors. Data (National AIDS Control Organisation, 2013) show, for example:

- Many first-generation HIV clinicians are retiring from practice while young providers are choosing medical careers outside of HIV and primary health care.

- Young providers are not adequately exposed to HIV training during pre-professional education (TargetHIV, 2019).
- HIV medicine is not taught in many health professions' academic or training programs because it is generally not required by school accrediting agencies.
- Most patients with HIV are seen in outpatient clinics, so fewer students are exposed to PLWH during their clinical training.

Consequently, the current health workforce is not adequately equipped to effectively treat PLWH as the number continues to grow. This makes for an untenable situation. Stigma and prejudice, which persists among providers – especially those in rural and remote areas of the country – has also served to exacerbate the HIV workforce shortage. Reports indicate that many rural clinicians are unwilling to treat PLWH because of stigma and prejudice. Others are overwhelmed by the complexity of treatment and the need to stay up to date with treatment recommendations.

However, data show health care for PLWH has improved substantially as evidenced by prognosis and life expectancy over the past two decades (Antiretroviral Therapy Cohort Collaboration, 2017). This is so because, despite not having a vaccine or a cure, there are ongoing sci-

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entific breakthroughs that have yielded tools to alter the course of this pandemic by controlling it. However, more than 30 years into the HIV epidemic, HIV remains a quandary of exceptional proportions for public health. And, even as we move from crisis to control, the estimated 1.1 million (Minority HIV/AIDS Fund [MHAF], 2020a) people in the United States living with HIV is expected to increase. Disturbingly, about 1 out of 7 persons who are infected are unaware. Despite the continued spread of HIV, the *HIV Surveillance Report* shows that during 2013-2017, the annual rate of diagnoses of HIV infection in the United States decreased (CDC, 2018).

With the expectation that more people will become aware of their HIV status which in turn increases the number of PLWH, targets national prevention strategies more vitally. HIV is a preventable disease. A more informed and educated clinical workforce is needed to implement our nationwide HIV strategic goals, primarily:

- Reducing new HIV infections.
- Increasing access to care and improving health outcomes for PLWH.
- Reducing HIV-related disparities and health inequities.

Effective HIV prevention interventions have been successful in reducing HIV transmission. Research shows people who get tested for HIV and learn they are infected can make significant behavior changes to improve their health and reduce the risk of transmitting HIV to their partners. Recent scientific advances have demonstrated early initiation of antiretroviral therapy not only preserves the health of PLWH, but also reduces their risk of transmitting HIV to others by 93% (HealthyPeople.gov, 2020).

As the world works to accelerate progress toward ending the HIV crisis, nurses can continue to play a critical role in helping PLWH navigate the continuum of care (MHAF, 2020b), sometimes referred to as the HIV treatment cascade model. This model provides a roadmap of the sequential steps, or stages, of HIV medical care from initial testing and diagnosis to engagement in care, adherence, and maintenance of viral suppression. These benchmarks are more likely to be achieved through a significantly expanded skilled workforce trained to ensure continued engagement in care systems. This is where nurses can make their indelible impact. They have, and

should continue to play, a pivotal role in HIV prevention, care, and treatment.

The NHC is a free educational website. It was developed by the University of Washington with the goal of providing ongoing, up-to-date information to healthcare providers in the United States. It is designed to help providers meet the core competency knowledge for HIV prevention, screening, diagnosis, and ongoing treatment and care. The NHC includes six modules, each representing a different core competency identified as essential by HIV experts. The curriculum provides the healthcare professional – from novice to expert – with the requisite updated training information and current national guidelines/recommendations for HIV infection prevention, treatment, and care. It can also be integrated into the curricula of accredited health professions programs to prepare students to medically manage PLWH.

The College of Medicine at both Howard University and the University of Illinois are the two federally funded academic medical institutions tasked with supporting the University of Washington in implementing this nationwide initiative. As the leader of the National HIV Curriculum Integration Project (H-NIP), Howard University has partnered with several Historically Black Colleges and Universities (HBCUs) to implement the NHC. This focused approach recognizes the fact that HIV disproportionately impacts persons of color, particularly African Americans. Also, people of color are more likely to live in medically underserved areas where the HIV disease burden is great, and they prefer to be treated by providers of color.

Ten geographically located HBCU nursing programs currently participate in this initiative with Howard University. Thus, H-NIP is serving as an effective vehicle for our nurses and other clinicians – both trainees and professionals – to receive the free, self-paced, CEU-certified training. Our program will expand beyond HBCUs and include other nursing programs nationwide and in the U.S. territories. The statistics presented in this article suggests that much work lies ahead if we are to achieve the benchmarks (White House Office of National AIDS Policy, 2015) established to address HIV in the United States. The NHC is a tool to help us accomplish this goal. The NHC provides easily accessible, scientifically rigorous, up-to-date training that addresses the HIV educational needs of

health professionals. The role of nurses is critical in helping to champion early diagnoses and early treatment of those infected, while reducing the risk for new HIV infections. The anticipated impact of this effort is the achievement of optimal health for PLWH through the provision of high-quality health care services.

How to register and sign up:

- 1) Log into the NHC website at: <https://www.hiv.uw.edu/>
- 2) Register and follow the instructions.
- 3) Your group add code is: **dwg96rfv79**
- 4) Your group name is: **Nursing-Students_HNIP DN**

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The Knowledge Gap: Improving Nursing Education About Pre-Exposure Prophylaxis for HIV Prevention

Samuel R. Bunting, Sarah S. Garber, and Dallas Ducar

Introduction

HIV incidence is a significant public health concern in the United States with nearly 40,000 new infections occurring annually (Centers for Disease Control and Prevention [CDC], 2018). One of the best HIV-prevention methods is daily pre-exposure prophylaxis (PrEP), which is over 90% effective at preventing HIV in patients at risk for contracting the virus (Riddell et al., 2018). Despite its effectiveness, the prescription of PrEP has been slow in the United States. Recent estimates suggest that only 10% of the patients at risk for HIV in the United States are actually prescribed PrEP (Hammack et al., 2018; Sullivan et al., 2018). One method for improving prescription rates of PrEP to patients at risk for HIV is to diversify the field of primary care providers who are prescribing the regimen.

The role of nurses has emerged as essential in PrEP prescription, management, and follow-up care. Protocols have been established describing nurse-led PrEP clinics in which registered nurses are able to dispense PrEP, provide HIV and STI testing, and provide counseling related to safe sex and risk reduction with provider oversight (Nelson et al., 2019; O'Byrne et al., 2019; O'Byrne et al., 2015; Sharma et

al., 2018). These protocols and initiatives represent a significant move towards multiplying the options patients have for receiving PrEP; however, they are not universally present in the clinics and health systems serving the areas with the greatest need for PrEP. A key aspect of increasing the involvement of nurses in PrEP scale-up will be ensuring adequate education about PrEP in the curricula of nursing programs.

Methods

An online survey was conducted among student members of the National Student Nurses Association (NSNA) using Qualtrics® (Provo, UT). The survey inquired about students' training on PrEP during their nursing education, and their confidence regarding three areas related to PrEP and HIV-care. Descriptive statistics were calculated to describe the sample and results using IBM SPSSV25 (Armonk, NY). This study was approved by the Institutional Review Board of Rosalind Franklin University.

Results

A total of 741 undergraduate nursing students completed the survey, representing approximately 1.2% of the

over 60,000 members of the NSNA. Considering the total sample, 67.5% ($n = 500$) of responding student nurses indicated they were aware of PrEP for HIV prevention at the time of completing the survey. The percentage of students aware of PrEP increased from year 1 (50%) to year 4 (72%) of training (see Figure 1).

The percentage of students who indicated they had received training about HIV risk factors in their education program was recorded as well. The percentage ranged from 70.9% of first-year students to 90.1% of fourth-year students. However, the percentage of students who indicated they had also received training about PrEP for HIV prevention was much lower, ranging from 22.1-46.4% among first- and fourth-year nursing students, respectively. This suggests that the knowledge of PrEP for many students occurs outside of their formal curriculum (see Figure 1).

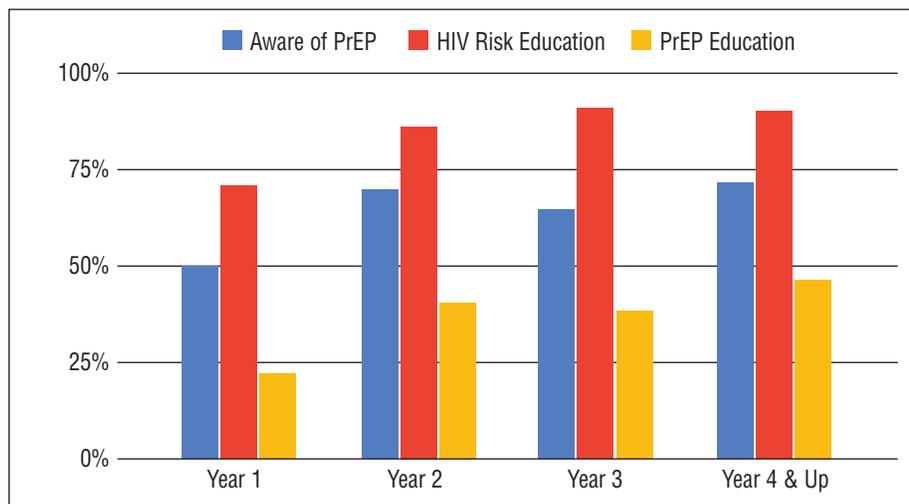
Discussion

PrEP is effective in preventing HIV transmission and nursing students are critical to ensuring patients are aware and have access to PrEP. This therapy will continue to be a fixture of the modern HIV prevention agenda. Increasing prescription of PrEP to patients at risk for HIV is a priority of the President's plan to end the HIV epidemic in America (Health Resources & Services Administration, 2020). Accomplishing this goal objective requires education of nurses, as frontline staff, to give them the skills to identify patients at risk for HIV and initiate a conversation about PrEP when appropriate.

Our results suggest the current curriculum of many nursing education programs may not be providing future

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Figure 1.
Aware of PrEP, HIV Risk Education and PrEP Education



The percentage of student, by year, who completed the survey and are aware of PrEP (blue), had HIV (red), or PrEP (yellow) included in their curriculum. It is important to note the gap between PrEP education and HIV education, indicating that many students get information on PrEP outside of their curriculum.

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nurses with the knowledge and skills they may need to serve their future patient population regarding PrEP. This is best illustrated by the discrepancy between the percentage of students who reported receiving training about HIV risk-factors and the much lower percentage who reported being trained about PrEP for HIV prevention. Educating future nurses about HIV requires education on PrEP as an essential feature of the conversation about HIV, which has moved from a devastating disease to a preventable, chronic condition.

It is incumbent on nurse educators to ensure future nurses are given the most up to date information about HIV prevention. Nurses are frontline staff and interface directly with each patient that enters into a clinic. Moreover, for the last 20 years the public has consistently rated nursing as the 'most trusted profession,' thus nurses are a key part of the healthcare team (American Hospital Association, 2019). It is therefore essential that nurses are not only aware of HIV prevention methods such as PrEP, but also educated about the importance of PrEP.

As the role of nurses in health care continues to expand, nursing students must be fully prepared with understanding how PrEP is used in HIV prevention. Preparation of students is a critical component of improving PrEP quality of care and reducing HIV incidence. Deans have an opportunity to enhance the education of their students by integrating PrEP education into a formal clinical and classroom setting. **DN**

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