

The Future of Pharmacist-Delivered Status-Neutral HIV Prevention and Care

Paul J. Weidle, PharmD, MPH, John T. Brooks, MD, Sheila Salvant Valentine, JD, and Demetre Daskalakis, MD, MPH

ABOUT THE AUTHORS

Paul J. Weidle, John T. Brooks, Sheila Salvant-Valentine, and Demetre Daskalakis are with the Division of HIV Prevention, National Center for HIV, Viral Hepatitis, STD & TB Prevention, Centers for Disease Control and Prevention (CDC), Atlanta, GA.

Note. The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the CDC.

During 2019 in the United States, there were an estimated 1.2 million people with HIV and 34 800 new HIV infections, among which people belonging to minority ethnic and racial groups were disproportionately affected: 41% of new HIV diagnoses were among Black/African American people and 29% were among Hispanic/Latino people.¹ In February 2019, the US Department of Health and Human Services launched Ending the HIV Epidemic in the US, a multiagency initiative with four key strategies (Diagnose, Treat, Prevent, and Respond), which when implemented together can end the HIV epidemic in the United States by 2030.² Pharmacists and community pharmacies are and will continue to be an essential part of the public health and medical infrastructure needed to end the HIV epidemic. Pharmacists are positioned to facilitate linkage to mainstream health care by reaching people from racial and ethnic groups that are disproportionately affected by HIV. Durable pharmacist impact hinges on addressing policy and practice barriers to enable expanded pharmacy-based HIV services.³ We call on leaders in public health, state and

local health departments, professional organizations dedicated to addressing the needs of people with HIV, and community-based organizations to increase engagement with pharmacists and pharmacy associations within their jurisdiction. This could be accomplished, in part, by including them on HIV planning boards and utilizing their skills and availability to support a status-neutral approach to HIV services. These actions will not only help end the HIV epidemic in the United States, but will also help address the syndemic of HIV, viral hepatitis, sexually transmitted infections, and substance use disorder.

The value of pharmacists in public health response is exemplified by the transformational role they have undertaken during the COVID-19 pandemic,⁴ delivering more than 250 million doses of COVID-19 immunizations by June 2022.⁵ The foundation to respond had been laid by the pharmacy profession years earlier by strategically establishing pharmacies as venues for immunization services, in particular annual influenza vaccination.⁶ Pharmacies can also be accessible sites to test and treat a variety of infectious diseases (e.g., influenza,

COVID-19, group A streptococcus) under collaborative practice agreements with physicians or by using standing orders.⁷ With these expanded capacities, pharmacists have addressed key components of public health, described more than 100 years ago by C. E. A. Winslow, as “the control of community infections” and “the organization of medical and nursing service for the early diagnosis and preventive treatment of disease.”^{8(p.30)} These components also address elements in the framework called for in the 2006 Policy Statement from the American Public Health Association on the role of the pharmacist in public health.⁹ Much of what pharmacists do in the community and outpatient setting is clinical prevention provided to individuals through interventions that promote health and prevent disease—essential components of health care and public health.

Adoption of a status-neutral approach to HIV services—in which HIV testing serves as an entry point to services for people with either a positive or negative result—can improve prevention and care outcomes.¹⁰ As front-line providers, pharmacists are well positioned to provide status-neutral care and advance the capacity to control HIV in the United States. People who receive a negative HIV test result can be offered powerful tools that prevent HIV, including preexposure prophylaxis and information about access to condoms, sexual health, and harm reduction services. People who receive a positive HIV test result can be quickly engaged in HIV primary care and prescribed effective treatment to help them rapidly achieve and durably maintain an undetectable viral load, which not only enables people with HIV to live long, healthy lives but prevents sexual HIV transmission.

Pharmacies are widely accessible, nonstigmatizing retail venues that could be more strategically leveraged to support a greater range of HIV prevention, care, and treatment services.¹¹ HIV self-testing has been passively supported through pharmacy-based sales of HIV self-test kits since they were first marketed in 2012. The advent of point-of-care tests for HIV and hepatitis C infection has created opportunities for pharmacists and community pharmacies to expand these prevention services more actively.⁷ Health departments or community-based organizations could partner with pharmacies to increase distribution of HIV self-test kits or mail-in self-collection kits for HIV or for sexually transmitted infections through their extensive network in urban, suburban, and rural communities. Pharmacists have a well-established role supporting antiretroviral treatment of, and preexposure prophylaxis against, HIV infection through conventional practice of education and timely reminders for refilling prescriptions. Pharmacists' participation in HIV clinic-based settings, alongside other medical practitioners, has been supported by the Ryan White AIDS Care Program for decades.¹² Engaging community pharmacists as key players in a care team can increase retention in care and adherence to antiretroviral therapy and maintain viral suppression.¹³ Pharmacists' involvement in pre-exposure prophylaxis care and delivery includes initiation of antivirals through standing orders or collaborative practice agreements with physicians, including through legislation in a growing number of states.¹⁴ Pharmacists are critical for the timely dispensing of medications for postexposure prophylaxis against HIV infection in coordination with HIV prevention public health programs and clinicians.

Pharmacists have a major role in ensuring that HIV medications are effectively used. An emerging concept is to link medical claims data and pharmacy claims data for real-time public health action to identify people who have a diagnosis of HIV infection (medical claims) and ensure that they are filling prescriptions for antiretroviral therapy (pharmacy claims); the effectiveness of this approach is currently being determined.¹⁵ Pharmacy claims data can also be used in real time to identify persons who have stopped or interrupted antiretroviral therapy and then, in turn, initiate a rapidly escalating series of interventions from the pharmacist, the medical provider, and the health department. In this way, public health can fulfill its function of ensuring that all people with HIV are taking antiretroviral therapy with resultant viral suppression. Using claims data in this manner requires logistical and administrative planning between different agencies and organizations, including the establishment of data use agreements. The pharmacist generates the data used for action and is integral to implementation of the intervention.

There are also underutilized opportunities for pharmacists to play a more prominent role in preventing the transmission of HIV and other infectious diseases through nonprescription syringe sales. More than 25% of persons who inject drugs obtain sterile syringes from pharmacies.¹⁶ There are programs that provide a framework, developed by the state or local health department, that integrates syringe sales with HIV prevention counseling, and educates pharmacists and pharmacy staff on harm reduction strategies, syringe disposal, access to naloxone for opioid overdose treatment, and referrals for substance use disorder treatment.¹⁷ Although most states allow for nonprescription

syringe sales to people who inject drugs, implementation is typically left to the discretion of the pharmacist on duty. Without a clear strategy in place, conflict may arise between the public health need to prevent the spread of infectious diseases and personal beliefs regarding injection drug use, prior negative experiences, perceptions about persons with substance use disorder, and laws against distribution or possession of drug paraphernalia. Education and support for pharmacists, from both pharmacy management and policy-makers, are needed for consistent application of nonprescription syringe sales in practice so pharmacists feel they are part of the solution to the prevention of infectious disease transmission, not part of the problem of the illicit drug use.

The Ending the HIV Epidemic in the US initiative provides a once-in-a-generation opportunity to control HIV in America. Doing so will require strengthening partnerships among public health leaders at the federal, state, and local levels, professional medical societies, HIV advocacy organizations, community-based organizations, health care providers, academic institutions, the business community, and other partners. Public health leaders, policymakers, pharmacists, and pharmacy associations should look for opportunities in their locality to expand the role of pharmacists in ending the HIV epidemic. **AJPH**

CORRESPONDENCE

Correspondence should be sent to Paul J. Weidle, PharmD, MPH, Centers for Disease Control and Prevention, 1600 Clifton Rd, MS USB-5, Atlanta GA, 30329 (e-mail: pweidle@cdc.gov). Reprints can be ordered at <http://www.ajph.org> by clicking the "Reprints" link.

PUBLICATION INFORMATION

Full Citation: Weidle PJ, Brooks JT, Valentine SS, Daskalakis D. The future of pharmacist-delivered status-neutral HIV prevention and care. *Am J*

Public Health. Published online ahead of print January 5, 2023:e1–e3.

Acceptance Date: November 23, 2022.

DOI: <https://doi.org/10.2105/AJPH.2022.307190>

CONTRIBUTORS

All authors contributed to the writing and provided critical review of the editorial.

CONFLICTS OF INTEREST

The authors have no conflicts of interest to declare.

REFERENCES

- Centers for Disease Control and Prevention. Estimated HIV incidence and prevalence in the United States, 2015–2019. HIV Surveillance Supplemental Report 2021;26(No. 1). May 2021. Available at: <https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-supplemental-report-vol-26-1.pdf>. Accessed June 1, 2022.
- Fauci AS, Redfield RR, Sigounas G, Weahkee M, Giroir BP. Ending the HIV epidemic: a plan for the United States. *JAMA*. 2019;321(9):844–845. <https://doi.org/10.1001/jama.2019.1343>
- Crawford ND, Lewis CF, Moore R, Pietrandoni G, Weidle PJ. Examining the multilevel barriers to pharmacy-based HIV prevention and treatment services. *Sex Transm Dis*. 2022;49(11S suppl 2):S22–S25. <https://doi.org/10.1097/OLQ.0000000000001643>
- Earl G, Cillessen L, Lyons-Burney H, et al. Pharmacists' role in infectious pandemics: illustration with COVID-19. In: Adejare A, Amin PD, Earl GL, eds. *Remington: The Science and Practice of Pharmacy*. 23rd ed. London, UK: Elsevier Inc; 2021: 849–876. <https://doi.org/10.1016/B978-0-12-820007-0.00064-7>
- Centers for Disease Control and Prevention. The federal retail pharmacy program for COVID-19 vaccination. Available at: <https://www.cdc.gov/vaccines/covid-19/retail-pharmacy-program/index.html>. Accessed June 6, 2022.
- Centers for Disease Control and Prevention. Influenza vaccinations administered in pharmacies and physician medical offices, adults, United States. Available at: <https://www.cdc.gov/flu/fluview/dashboard/vaccination-administered.html>. Accessed June 1, 2022.
- Cillessen LM, Lyons-Burney H, Gubbins PO. Pharmacist use of point-of-care testing to improve access to care. In: Adejare A, Amin PD, Earl GL, eds. *Remington: The Science and Practice of Pharmacy*. 23rd ed. London, UK: Elsevier Inc; 2021:817–828. <https://doi.org/10.1016/B978-0-12-820007-0.00046-5>
- Winslow CE. The untilled fields of public health. *Science*. 1920;51(1306):23–33. <https://doi.org/10.1126/science.51.1306.23>
- American Public Health Association (APHA). The role of the pharmacist in public health. APHA policy no. 200614. 2006. Available at: <http://www.apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/07/13/05/the-role-of-the-pharmacist-in-public-health#:~:text=Prominent%20considerations%20of%20the%20role,patients%20and%20health%20team%20members>. Accessed June 1, 2022.
- The White House. National HIV/AIDS Strategy for the United States 2022–2025. 2021. Available at: <https://www.hiv.gov/federal-response/national-hiv-aids-strategy/national-hiv-aids-strategy-2022-2025>. Accessed June 1, 2022.
- Myers JE, Farhat D, Guzman A, Arya V. Pharmacists in HIV prevention: an untapped potential. *Am J Public Health*. 2019;109(6):859–861. <https://doi.org/10.2105/AJPH.2019.305057>
- Cantwell-McNelis K, James CW. Role of clinical pharmacists in outpatient HIV clinics. *Am J Health Syst Pharm*. 2002;59(5):447–452. <https://doi.org/10.1093/ajhp/59.5.447>
- Byrd KK, Hou JG, Bush T, et al. Adherence and viral suppression among participants of the patient-centered Human Immunodeficiency Virus (HIV) Care Model Project: a collaboration between community-based pharmacists and HIV clinical providers. *Clin Infect Dis*. 2020;70(5):789–797. <https://doi.org/10.1093/cid/ciz276>
- Farmer EK, Koren DE, Cha A, et al. The pharmacist's expanding role in HIV pre-exposure prophylaxis. *AIDS Patient Care STDS*. 2019;33(5):207–213. <https://doi.org/10.1089/apc.2018.0294>
- Byrd KK, Camp NM, Iqbal K, Weidle PJ. Pharmacy data as an alternative data source for implementation of a data to care strategy. *J Acquir Immune Defic Syndr*. 2019;82(1):S53–S56. <https://doi.org/10.1097/QAI.0000000000001969>
- Centers for Disease Control and Prevention. HIV infection risk, prevention, and testing behaviors among persons who inject drugs: National HIV Behavioral Surveillance, injection drug use, 23 US cities, 2018. HIV Surveillance Special Report 24. February 2020. Available at: <https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-special-report-number-24.pdf>. Accessed June 1, 2022.
- Anderson B, Mercier RC. The role of nonprescription syringe sales in ending the human immunodeficiency virus epidemic. *J Am Pharm Assoc (2003)*. 2022;62(4):1158–1161. <https://doi.org/10.1016/j.japh.2022.02.017>