

# Opportunities for Pharmacist Intervention: Exploring Barriers to Accessing HIV Post-Exposure Prophylaxis (PEP) in the United States

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## Objective

- To conduct a scoping review to identify barriers to human immunodeficiency virus (HIV) post-exposure prophylaxis (PEP) treatment accessibility in the United States. Several studies have identified barriers to accessing HIV preventative care and treatment, but none have succinctly compiled the results.

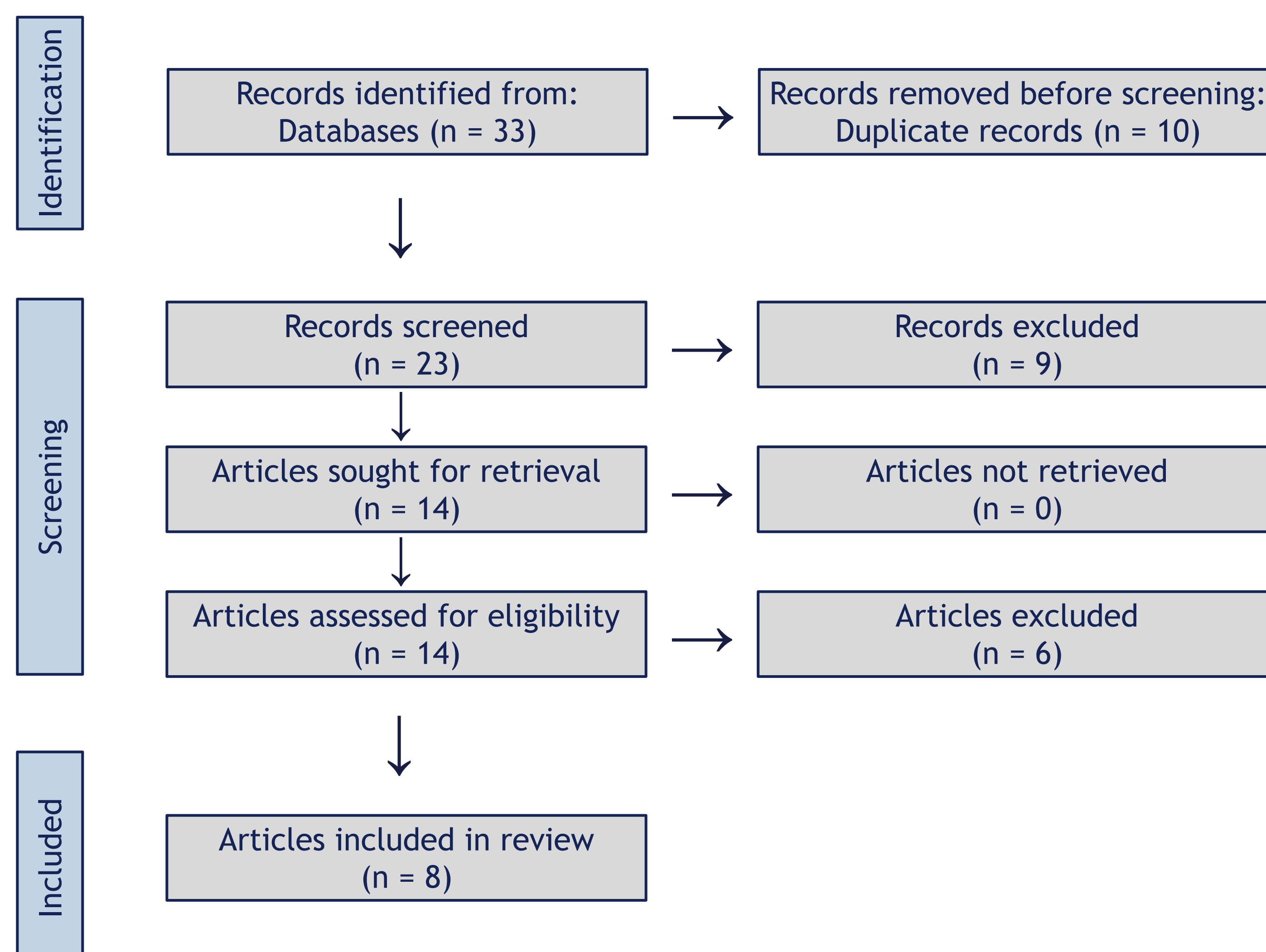
## Background & Significance

- The estimated number of new human immunodeficiency virus (HIV) infections in the U.S. in 2020 was 30,635, with an incidence rate of about 9.3 per 100,000 people.
- HIV can have general medical, psychosocial, hepatic, oncogenic, cardiovascular, and osteoporotic implications that can reduce quality of life and ultimately lead to death.
- Post-Exposure Prophylaxis (PEP) is a pharmacologic treatment to viral replication after potential exposure to HIV that can develop into acquired immunodeficiency syndrome (AIDS).
- The Centers for Disease Control (CDC) currently recommends going to a provider office, emergency department, or urgent care center to obtain PEP within 72 hours of suspected exposure to HIV or AIDS.
- Pharmacists in 13 states are allowed to initiate PEP in varying ways, but citizens in the rest of the 37 states are unable to obtain PEP at their local pharmacy and must obtain PEP from one of the three CDC-recommended sites.
- Almost 90% of Americans live within 5 miles of a pharmacy.

## Methods

- Databases searched: PubMed and Scopus using a combination of keywords to create a systematic search for a scoping review.
- Inclusion criteria: restricted to the United States, written in English, peer-reviewed and published, needed to focus on HIV prevention and accessibility concerns, and identified one or more barriers to HIV preventative care.
- Articles were screened via title and abstract, followed by whole article review according to inclusion criteria for identification of themes, then duplicates were removed.

Figure 1: Identification of Articles via Databases



## Results

Table 1: Article Characteristics

First Author (Year)	Objective	Article Type	Themes Identified as Accessibility Barriers
Kherghepoush (2022)	<ul style="list-style-type: none"> <li>To assess HIV and HCV risk factor presence and prevalence in those with unstable housing in Washington state</li> <li>To determine if HIV and HCV prevalence and presence of risk factors are ones in which pharmacist can impact in the care continuum through screening, education, counseling, and referral</li> </ul>	Quantitative, Community Interventional Study	<ul style="list-style-type: none"> <li>PCP visits = time-constrained → Decreased HIV preventative treatment awareness</li> <li>HIV → Psychosocial distress → Nonadherence to PEP/unwilling</li> </ul>
Koester (2020)	<ul style="list-style-type: none"> <li>To assess perspectives of clinic and community pharmacists, HIV clinic physicians, and community pharmacy managers about a California policy allowing pharmacists to furnish and dispense PEP for HIV</li> </ul>	Qualitative Case Study	<ul style="list-style-type: none"> <li>Inaccessible distance</li> <li>Healthcare professional shortages = lack of availability to obtain/learn about PEP</li> <li>Current facilities have untimely hours leading to inaccessibility</li> <li>Unapproachable medical team for HIV prevention questions</li> </ul>
Lewis (2020)	<ul style="list-style-type: none"> <li>To identify barriers to PEP obtainment, PEP awareness, and willingness to use PEP in New York City</li> </ul>	Mixed-Method, Structural Interventional Study	<ul style="list-style-type: none"> <li>Uninformed/estranged from healthcare</li> <li>Misinformed about the difference between PEP and PrEP as it relates to efficacy timeframe</li> <li>Misinformed about PEP eligibility and/or what are risky behaviors</li> <li>Misinformed about ADRs → Afraid of PEP</li> <li>Stigmatizing to go to HIV clinic → avoidance of HIV clinics</li> <li>Unapproachable medical team for HIV prevention questions</li> </ul>
Min (2020)	<ul style="list-style-type: none"> <li>To identify opportunities for pharmacist intervention for strategic HIV and HCV prevention in urban United States</li> </ul>	Cross-Sectional Survey	<ul style="list-style-type: none"> <li>Stigmatizing to go to HIV clinic → avoidance of HIV clinics</li> <li>Uninformed/estranged from healthcare</li> </ul>
Amesty (2015)	<ul style="list-style-type: none"> <li>To assess the usefulness of expanding pharmacy services to include HIV testing and preventative services in Harlem, New York City</li> </ul>	Quantitative, Community Interventional Study	<ul style="list-style-type: none"> <li>Uninformed/estranged from healthcare</li> <li>PCP visits = time-constrained → Decreased HIV preventative treatment awareness</li> </ul>
Ryder (2013)	<ul style="list-style-type: none"> <li>To assess the practicality of offering HIV testing in community pharmacies in Indiana</li> <li>To identify challenged in pharmacy-based HIV services</li> </ul>	Qualitative, Semi-Structured Interviews	<ul style="list-style-type: none"> <li>Stigmatizing to go to HIV clinic → avoidance of HIV clinics</li> <li>Inaccessible distance</li> </ul>
Gardner (2010)	<ul style="list-style-type: none"> <li>To review engagement in care for HIV-infected persons in the United States</li> <li>To understand the challenges that a poor care continuum can pose in HIV prevention</li> </ul>	Meta-Analysis	<ul style="list-style-type: none"> <li>Inaccessible distance</li> </ul>
Lurie (1998)	<ul style="list-style-type: none"> <li>To review existing data on PEP</li> <li>To use clinical cases to present factors for consideration when initiating PEP</li> <li>To assess PEP as an overall prevention strategy in the United States</li> </ul>	Meta-Analysis	<ul style="list-style-type: none"> <li>Stigmatizing to go to HIV clinic → avoidance of HIV clinics</li> <li>Inaccessible distance</li> <li>Uninformed/estranged from healthcare</li> <li>HIV → Psychosocial distress → Nonadherence to PEP/unwilling</li> </ul>

## Main Findings

### Geographical Barriers

- CDC-recommended facilities were too far away or involved transportation issues to access in a timely manner, especially for facilities with untimely hours

### Healthcare Professional Shortage Barriers

- Current healthcare professional shortages lead to a lack of HIV preventative care obtainment due to the inability to meet with professionals.
- Shortages also impeded on opportunities to learn about PEP and HIV prevention.
- Since there is a shortage of professionals, primary care provider visits are often time-constrained, leading to a lack of PEP and HIV care awareness.

### Misinformation Barriers

- Many people at risk for HIV or have HIV/AIDS were found to be estranged from healthcare, therefore leading to misinformation or patients being uninformed about PEP and HIV preventative care.
- Patients were afraid of PEP side effects and did not know how to contact a professional for accurate information.
- Patients were found to not know the difference between PEP and PrEP, treatment efficacy timeframes, or what are considered risky behaviors as PEP qualifiers.

### Stigmatization Barriers

- HIV clinics were identified to be stigmatizing to go to due to their known specialty of care, discouraging patients from seeking their help.
- Patients were apprehensive to approach their providers with HIV prevention questions due to their familiar relationship, preventing patients from seeking help.

## Conclusion

- More research needs to take a community approach and ask at-risk patients what their own barriers are to accessing HIV preventative care, like the PEP regimen.
- Federal legislative bodies should take steps to allow pharmacists to intervene in HIV/AIDS preventative care in order to close health equity gaps, promote HIV/AIDS health literacy, and ensure continuity of care for everyone.

## Potential Solutions

### Allow Community Pharmacists to Furnish & Dispense PEP

#### Geographical Equity

Since 90% of Americans live within 5 miles of a community pharmacy, allowing pharmacists to give patients PEP can close geographical barriers related to CDC-recommended sites being too far away for some patients.

#### Professional Shortage Impact

Often PharmD clinical and educational backgrounds are overlooked in terms of their capabilities to deliver comprehensive care. Pharmacists can counsel patients on HIV prevention and PEP administration and alleviate some of the burden that communities are facing with provider shortages.

#### Lack of Disease-Specific Stigma

Community pharmacies dispense medication for a variety of diseases; therefore, they are not associated with any specific disease state. Patients may feel less stigmatized to go to a pharmacy for care than an HIV clinic.

#### Better Information Dissemination

Community pharmacists also field clinical questions and direct patients to resources available. Encouraging pharmacists to have informative material for HIV preventative care would be an addition to their current role that is both within their scope of practice and one that they are already trained to do. With pharmacies readily accessible, this information base would promote health literacy also.

## Acknowledgements

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References available upon request.

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