1032 Use of HIV PEP by US Commercially Insured Persons Increased with Availability of PrEP

Ya-Lin (Aileen) Huang, PhD, Ken Dominguez, MD, Anne Patala, MPH, Karen Hoover, MD
Centers for Disease Control and Prevention, Atlanta, GA, USA

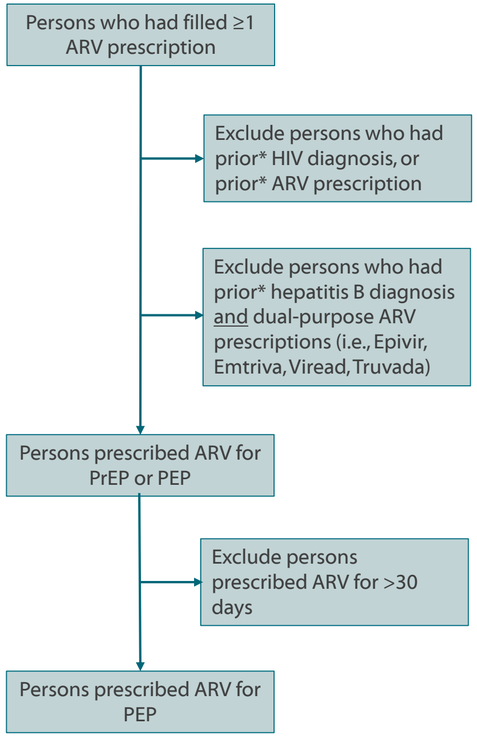
BACKGROUND

- Antiretroviral (ARV) drugs can be used for HIV postexposure prophylaxis (PEP) within 72 hours after exposure to the virus to prevent the risk of acquiring an infection.
- In 2005, CDC issued guidelines for PEP use and updated its recommendations in 2016.
- However, awareness of and access to PEP has been low, and population-level estimates of PEP use are lacking.
- **Objective**
  1. To estimate PEP use among the commercially insured persons over time.
  2. To compare the trend of PEP use with PrEP uptake.

METHODS

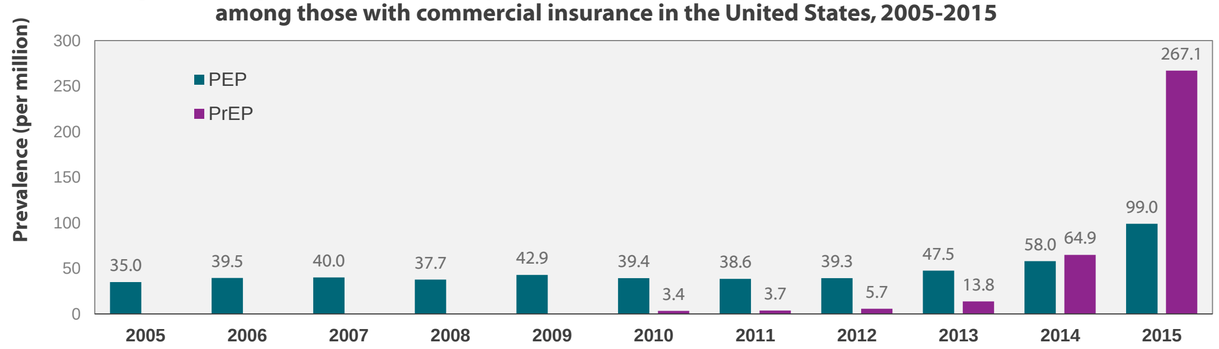
- We used data from Truven Health Marketscan Commercial databases, 2005-2015. The databases contain records for approximately 30-50 million employees and their dependents each year; and can be weighted to all US individuals with employer-sponsored health insurance.
- We developed an algorithm to identify persons who were prescribed ARV for PEP for each year, using a person's medical and pharmacy claims data. (**Figure 1**)
- We used weighting variable to generate national estimates of the PEP users and described their demographic characteristics.
- We estimated the weighted prevalence of PEP user over all commercially-insured population each year, and compare with the prevalence of PrEP uses we have estimated previously.

Figure 1. Algorithm for Identifying PEP users



* When applying the exclusion criteria, we included all retrospective medical and prescription data for at least one year preceding the index ARV prescription date.

Figure 2. Weighted prevalence proportion (per million) of persons prescribed PEP and PrEP among those with commercial insurance in the United States, 2005-2015



KEY FINDINGS

- The weighted number of persons prescribed PEP increased from 5,772 in 2005 to 15,570 in 2015.
- In 2015, among the 15,570 PEP users, the mean age was 34.7 years, where more than half (52.7%) were 18-34 years old; 73.6% were male; 97.5% resided in metropolitan statistical areas.
- The proportion of the male users and the proportion of the urban use increased over the 2005-2014 period.
- The prevalence of the PEP use increased from 35.0 per million in 2005 to 99.0 per million in 2015 (P_{trend} <.001). (**Figure 2**)
- When stratified by sex, the prevalence of male PEP users nearly quadrupled from 2005 (41.2 per million) to 2015 (146.4 per million) (P_{trend} <.001); while the prevalence of the female users nearly doubled (from 28.6 per million in 2005 to 52.1 per million in 2015) (P_{trend} <.001).
- Increases in PEP use mirrored increases in PrEP use. (**Figure 2**)

CONCLUSIONS

- We found an increasing trend in the prevalence of both PEP and PrEP use during 2005-2015.
- The increase in PEP use might be associated with increased awareness of PEP as a result of PrEP social media and educational campaigns that included information on PEP.
- Limitation: We might have overestimated the number of PEP users by including persons who were prescribed PrEP but discontinued within 30 days.
- Our analytic methodology provides a feasible approach to estimate PEP use at the population level among users of private health insurance.

CONTACT INFO

Ya-Lin (Aileen) Huang, PhD
Yhuang@cdc.gov / 404-639-2992

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Division of HIV/AIDS Prevention

www.cdc.gov | Contact CDC at: 1-800-CDC-INFO or www.cdc.gov/info
The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.