Racial Characteristics of FTC/TDF for Pre-exposure Prophylaxis (PrEP) Users in the US #2651

ASM Microbe 2016 / ICAAC 2016
Boston, MA; June 16-20, 2016

Bush, Staci; Magnuson, David; Rawlings, M. Keith; Hawkins, Trevor; McCallister, Scott; Mera Giler, Robertino
Disclosures

- All authors are employees and shareholders of Gilead Sciences
African-Americans Have the Highest Lifetime Risk of HIV Diagnosis

44,073: New HIV diagnoses in the US
- **44% African Americans (AA)** (n=19,540):
  - 26% AA Women (n=5,128)
- **22% youth aged 13 to 24** (n=9,731):
  - 56% AA (n=5,464), 22% Hispanic (n=2,108), 17% White (n=1,644)

### Lifetime Risk of HIV Diagnosis by Race/Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Lifetime Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall US</td>
<td>1 in 99</td>
</tr>
<tr>
<td>AA Men</td>
<td>1 in 20</td>
</tr>
<tr>
<td>AA Women</td>
<td>1 in 48</td>
</tr>
<tr>
<td>Hispanic Men</td>
<td>1 in 48</td>
</tr>
<tr>
<td>Hispanic Women</td>
<td>1 in 227</td>
</tr>
<tr>
<td>White Men</td>
<td>1 in 132</td>
</tr>
<tr>
<td>White Women</td>
<td>1 in 880</td>
</tr>
</tbody>
</table>

Availability of FTC/TDF for PrEP and other prevention methods are urgently needed to reduce new HIV infections.

http://www.cdc.gov/hiv/group/age/youth/index.html

Kristen H, et al. CROI 2016. Boston, MA. #52
Methods

- National, electronic, patient-level data was collected from 82% of all US retail pharmacies that dispensed FTC/TDF between January 1, 2012 and September 30, 2015.
  - Data was projected to account for all retail pharmacies and to a small extent non-retail pharmacies.

- De-identified patient-level data including prescription refill data, medical claims, and patient demographics were analyzed via logistic regression.

- An algorithm identified the use of FTC/TDF for PrEP by excluding FTC/TDF use for HIV treatment, post-exposure prophylaxis (PEP), and off-label treatment of chronic hepatitis B.
Algorithm

Since there is no diagnosis code for PrEP, this involved examining all diagnosis codes where FTC/TDF was prescribed, and excluding diagnosis codes for other possible Truvada uses.

<table>
<thead>
<tr>
<th>HIV</th>
<th>HBV</th>
<th>PEP</th>
</tr>
</thead>
</table>
| **Exclude** all concomitant use of any other antiretroviral treatment. | **Exclude** anti Chronic Hepatitis B specific treatment  
Exclude a prior diagnosis of HIV disease (ICD9 = 042); asymptomatic HIV infection (V08); HIV-2 infection (079.53) or nonspecific serologic evidence of HIV (795.71)  
Exclude a prior diagnosis of opportunistic infection: (Candidiasis of bronchi, trachea, esophagus 112.84, or lungs 112.4, Toxoplasmosis 130.X, Coccidioidomycosis 114, Cryptococcosis 117.5, Cryptosporidiosis 007.4, CMV retinitis 078.5, Kaposi's sarcoma 176.0, Mycobacterium avium complex 031.2 031.0, Pneumocystis carinii pneumonia 136.3) | **Exclude** specific codes of E920.5 (contaminated needle stick) and/or V078 V079 (prophylaxis). |

Bush S, et al. ASM/ICAAC 2016; Boston, MA. #2651
FTC/TDF for PrEP Utilization Compared With Population and New HIV Infections

Estimated Population Distribution by Race/Ethnicity, 2014, US\(^a\)

- AA: 62%
- White: 12%
- Hispanics: 18%
- Asians: 3%
- Multiracial/Other: 2%

Total FTC/TDF for PrEP Utilization by Race/Ethnicity, Sept 2015, US\(^b\)

- AA: 74%
- White: 10%
- Hispanics: 12%
- Asians: 4%
- Multiracial/Other: 2%

Estimated New HIV Infections, 2014, US\(^c\)

- AA: 44%
- White: 27%
- Hispanics: 23%
- Asians: 3%
- Multiracial/Other: 2%

FTC/TDF for PrEP use among AA and Hispanics is low relative to the rate of new HIV infections.

b. These data represent 43.7% (n=21,463) of unique individuals who have started TVD for PrEP from 2012-3Q2015.

Bush S, et al. ASM/ICAAC 2016; Boston, MA. #2651
FTC/TDF for PrEP Utilization Compared With Population and New HIV Infections

- AA: 62%
- White: 12%
- Hispanics: 18%
- Asians: 3%
- Multiracial/Other: 2%

- AA: 74%
- White: 10%
- Hispanics: 12%
- Asians: 4%
- Multiracial/Other: 2%

- AA: 27%
- White: 44%
- Hispanics: 23%
- Asians: 3%
- Multiracial/Other: 2%

FTC/TDF for PrEP use among AA and Hispanics is low relative to the rate of new HIV infections.

---

a. [https://www.census.gov/quickfacts/table/PST045215/00](https://www.census.gov/quickfacts/table/PST045215/00)
b. These data represent 43.7% (n=21,463) of unique individuals who have started TVD for PrEP from 2012-3Q2015.
c. Other indicates American Indian or Alaska Native, and Native Hawaiian or other Pacific Islander. CDC. *HIV Surveillance Report, 2014*
Women comprised 20.7% of those who initiated FTC/TDF for PrEP overall.
Women comprised 20.7% of those who initiated FTC/TDF for PrEP overall. The percent of women starting FTC/TDF for PrEP dropped, from 48.5% in 2012 to 11.4% in Q3 2015.
New FTC/TDF PrEP Starts by Race/Ethnicity and Sex/Gender*

While the number of women who initiate FTC/TDF for PrEP is low across all races/ethnicities, the rate of FTC/TDF for PrEP initiation among AA and Hispanic women is significantly less than that of white women.

* These data represent 43.7% (n=21,463) of unique individuals who have started FTC/TDF for PrEP from 2012-3Q2015.

Bush S, et al. ASM/ICAAC 2016; Boston, MA. #2651
New FTC/TDF for PrEP Starts by Race/Ethnicity and Age*

1 in 5 new HIV diagnosis occurs in those < 25 y/o:
56% AA (n=5,464), 22% Hispanic (n=2,108), and 17% white (n= 1,644).

7.6% of those who initiated FTC/TDF for PrEP were under 25 y/o.

* These data represent 43.7% (n=21,463) of unique individuals who have started FTC/TDF for PrEP from 2012-3Q2015.
Conclusions

- There has been >500% increase in FTC/TDF for PrEP utilization in the US from 2013 to 2015.
- Initiation of FTC/TDF for PrEP has been low among:
  - African Americans
  - Hispanics
  - Women
  - Those <25 years of age
- HIV prevention education and PrEP services may need to be racially focused and culturally relevant to increase PrEP uptake and decrease new infections in populations at the greatest risk.

Bush S, et al. ASM/ICAAC 2016; Boston, MA. #2651
Thank you

Staci.Bush@gilead.com
(650) 522-6267