PrEP
If you’re not, you oughtta be

Ben Andrews, MD
Christ Community Health Services
Memphis, TN
October 13, 2018
Outline

• HIV epidemiology
  – Prevalence
  – Risk
• PrEP Efficacy
• PrEP Implementation
• A few reminders
• Stigma
People Living with HIV

1.1 million
people living with HIV in the United States
Memphis and the MidSouth
Memphis by Zip Code
## Countries with highest HIV prevalence

<table>
<thead>
<tr>
<th></th>
<th>Country</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SWAZILAND</td>
<td>27.20</td>
</tr>
<tr>
<td>2</td>
<td>LESOTHO</td>
<td>25.00</td>
</tr>
<tr>
<td>3</td>
<td>BOTSWANA</td>
<td>21.90</td>
</tr>
<tr>
<td>4</td>
<td>SOUTH AFRICA</td>
<td>18.90</td>
</tr>
<tr>
<td>5</td>
<td>NAMIBIA</td>
<td>13.80</td>
</tr>
<tr>
<td>6</td>
<td>ZIMBABWE</td>
<td>13.50</td>
</tr>
<tr>
<td>7</td>
<td>ZAMBIA</td>
<td>12.40</td>
</tr>
<tr>
<td>8</td>
<td>MOZAMBIQUE</td>
<td>12.30</td>
</tr>
<tr>
<td>9</td>
<td>MALAWI</td>
<td>9.20</td>
</tr>
<tr>
<td>10</td>
<td>UGANDA</td>
<td>6.50</td>
</tr>
<tr>
<td>11</td>
<td>EQUATORIAL GUINEA</td>
<td>6.20</td>
</tr>
<tr>
<td>12</td>
<td>KENYA</td>
<td>5.40</td>
</tr>
<tr>
<td>13</td>
<td>TANZANIA</td>
<td>4.70</td>
</tr>
<tr>
<td>14</td>
<td>CENTRAL AFRICAN REPUBLIC</td>
<td>4.00</td>
</tr>
<tr>
<td>15</td>
<td>CAMEROON</td>
<td>3.80</td>
</tr>
<tr>
<td>16</td>
<td>GABON</td>
<td>3.60</td>
</tr>
<tr>
<td>17</td>
<td>THE BAHAMAS</td>
<td>3.30</td>
</tr>
<tr>
<td>18</td>
<td>RWANDA</td>
<td>3.10</td>
</tr>
</tbody>
</table>

*Memphis 38105: 3.26*
Lifetime Risk of HIV

What's your lifetime risk of being diagnosed with HIV?

1 in 6 men who have sex with men

1 in 23 women who inject drugs

1 in 36 men who inject drugs

1 in 241 heterosexual women

1 in 473 heterosexual men

MSM are 79 times more likely than heterosexual men to be diagnosed with HIV in their lifetime.

Source: CDC, February 2016
African Americans make up 12% of the U.S. population but account for 40% of persons living with HIV/AIDS in 2013.

- 1 in 2 African American gay/bisexual men are affected.
- 1 in 20 African American men are affected.
- 1 in 48 African American women are affected.

19,436 African Americans were newly diagnosed with HIV in 2014, and nearly two-thirds live in the South.

3,742 African Americans died of HIV/AIDS in 2013, accounting for more than half of all deaths attributed to HIV/AIDS that year.

Knowing your status is key to preventing the spread of HIV. Do your part: Get tested.

Source: US Centers for Disease Control & Prevention
Being PrEPared — Preexposure Prophylaxis and HIV Disparities

Robert H. Goldstein, M.D., Ph.D., Carl G. Streed, Jr., M.D., and Sean R. Cahill, Ph.D.
How do we prevent HIV?

• A = Abstinence
• B = Be Faithful
• C = Condomize
• D = Drug to prevent HIV
  – U = U (Undetectable = Untransmittable)
    • Prevention with positives
  – PrEP
How do we prevent HIV?

• A = Abstinence
• B = Be Faithful
• C = Condomize
• D = Drug to prevent HIV
  – U = U (Undetectable = Untransmittable)
    • Prevention with positives
  – PrEP
What is PrEP?

• Pre – Exposure Prophylaxis
• Tenofovir DF-Emtricitabine
• 1 tab daily
• Side effects:
  - GI, usually 2-3 weeks
  - Renal
How Effective is PrEP?

PrEP Works...If You Take It

<table>
<thead>
<tr>
<th>Trial</th>
<th>Efficacy</th>
<th>Adherence</th>
</tr>
</thead>
<tbody>
<tr>
<td>iPrEx(^7)</td>
<td>Oral daily Truvada: 42%</td>
<td>51%</td>
</tr>
</tbody>
</table>
| Partners PrEP\(^8\) | Oral daily tenofovir: 67%  
                           | Oral daily Truvada: 75%                       | 83%       |
| TDF2\(^9\)     | Oral daily Truvada: 62%                       | 81%       |
| FEM-PrEP\(^10\) | Oral daily Truvada: No Protection             | 24%       |
PrEP Works if You Take It — Effectiveness and Adherence in Trials of Oral and Topical Tenofovir-Based Prevention

Source: Salim S. Abdool Karim, CAPRISA
NNT to prevent 1 infection

Buchbinder, Lancet 2014
Developing Policies and Protocols

Pre-Exposure Prophylaxis (PrEP): A primer for primary care providers

US Public Health Service

PREEXPOSURE PROPHYLAXIS FOR THE PREVENTION OF HIV INFECTION IN THE UNITED STATES - 2014

A CLINICAL PRACTICE GUIDELINE
HIV Department Policy

**POLICY NUMBER:** HIV Clinical-10  
**TOPIC OF POLICY:** Pre-Exposure Prophylaxis (PrEP)  
**DATE APPROVED:** October 2015  
**LAST REVIEW/REVISION DATE:** October 12, 2015

**1.0 PURPOSE**

Daily emtricitabine/tenofovir (Truvada®) is safe and effective for reducing the risk of HIV acquisition in sexually active men and women and injection drug users. This policy gives guidance to providers who are interested in prescribing pre-exposure prophylaxis (PrEP) of HIV for high-risk patients.
Eligibility Criteria

• Men who have sex with men (MSM)
  – who engage in condomless receptive anal sex
  – with multiple anal sex partners
  – with syphilis or rectal STDs (e.g. Ng/Ct)
  – with one or more HIV-positive sex partners, particularly if the HIV-positive partner is not in care or does not have an undetectable viral load

• Heterosexual men and women with one or more HIV-positive sex partners

• Injection drug users
Informal Eligibility Criteria

- Men who have sex with men (MSM)
  - who are sexually active or likely to become sexually active
- Heterosexual men and women with
  - HIV-positive sex partner
  - Frequent STDs and multiple partners or with high-risk partner
- Injection drug users
- Anyone who is sexually active and believes that they are at high risk
More Slides needed here

- Including CCHS data
Getting Prepped

Some people may face problems with their insurance covering the costs of Truvada for PreP. This infographic provides details that may be useful to you. Learn more about PreP at these websites:

- projectinform.org/prep
- prepfacts.org
- pleaseprepm.org
- nastad.org/prepcost
- hivonline.org
- thewellproject.org/hiv-information/prep-women
- whatisprep.org
- facebook.com/groups/PrePFacts

Check Your Insurance Plan

Your costs
- Check your insurance plan ahead of time to see what you may have to pay out of pocket (OOP) while on PreP.
- Find what your deductible is.
- Find what drug tier that Truvada is on.
- Figure out your total costs for medical visits, blood work and prescriptions.
- Find what other OOP costs that you’re responsible for, such as co-insurance.
- Ask for help from your doctor’s office, pharmacist, local case manager or insurance plan rep.
- Avoid Bronze plans if you can (they generally have higher OOP costs). If you can afford them, Silver, Gold and Platinum plans offer better coverage.

Find a Medical Provider Who Supports Your Decision to PreP

Schedule an appointment
- Approach your medical provider about Truvada for PreP prescription.
- If they will prescribe, GREAT NEWS!
- If they don’t know about PreP but are willing to prescribe:
  1) They can consult the Federal Guidelines (tinyurl.com/2017PrePguidelines), and/or
  2) Take a copy of the guidelines with you, and/or
  3) They can consult the CCCC’s PrePline at 855-448-7737 during business hours (tinyurl.com/CCCPrepline), and/or
  4) They can consult NASTAs’ Billing Coding Guide for HIV Prevention (tinyurl.com/NASTAguide).
- If they aren’t willing to prescribe:
  1) Read/Utilize these resource materials:
     “Talk to Your Doctor”: tinyurl.com/PrePbrochureCDC
     “Work through Doctor Visit”: tinyurl.com/PrePdocvisit
  2) Ask for a referral, or find another provider on your own:
     - your insurance plans provider directory
     - public health clinics (findahealthcenterhra.gov), STD clinics, Planned Parenthood (tinyurl.com/PPclinics)
     - local, county and state health departments
     - search engines: 
       - pleaseprepm.org/find-a-provider
       - preplocator.org
       - greaterthan.org/get-prep

Find a Medical Visits, Blood Work

If you encounter uncovered costs related to your medical visits and/or blood work, these options may help:

- Public health clinics
  - Some public health clinics offer sliding fee scale for medical visits and blood work.

FSAs

FSAs (Flexible Spending Accounts) are accounts set up with pre-tax dollars to help pay for OOP health care costs.

Prior authorizations

Some insurance plans require a prior authorization (PA) for Truvada for PreP:
- This is normal.
- May need extra paperwork.
- Your provider can use the code found on p42 at tinyurl.com/2017PrePsupplement.
- Re-submit paperwork until the PA is approved.

Denials

- Your provider should code paperwork correctly to your insurance carrier. (URL above.)
- Work with your provider’s office to submit challenge(s). It may take more than one.

Tele-PreP services

- Two online resources may be able to prescribe PreP to you without a doctor’s visit in some states:
  - nurx.co/prep
  - preppluscare.com

Get Your Prescription

Pharmacy refills

- Plans vary in what they offer. Your plan may:
  - Vary in how you get meds (at pharmacy, mail order).
  - Provide only 30-day refills
  - Offer 90-day refills
  - Make you initiate the monthly refill
  - Have an auto-send function for refills
  - Offer refills earlier than waiting 30 days

- ALSO:
  - In-network pharmacies will reduce your cost.
  - Apply for Gilead’s Co-Pay Card.
  - Apply for Gilead’s Co-Pay Card before going to a pharmacy (next column).
  - If pharmacy doesn’t accept Co-Pay Card, keep pharmacy and sales receipts.
  - Call the number on back of co-pay card.
  - Submit paperwork for payment.

Pay for the Medication and Other Costs

Manufacturer assistance

- www.gileadadvancingaccess.com, 800-226-2056 (18 years of older)
- Co-Pay Assistance
  - Covers up to $7,200 per calendar year, out-of-pocket costs
  - For commercially insured individuals, re-apply annually as needed
  - Not available for persons with Medicaid, Medicare, VA or other federal/state prescription drug programs
- Medication Assistance
  - Uninsured, insurance declined payment, or no pharmacy benefits
  - US resident (SSN not required) and family income <500% FPL (federal poverty level, tinyurl.com/FPLincomes)
  - Eligibility confirmed every 6 months
- Patient Access Network Foundation
  - Medicare plans only; family income below 500% FPL
  - $8,000 max per year, may reapply
  - Covers co-pays, deductibles and coinsurance
  - panapply.org, 866-316-7263 (program is sometimes closed)

Patient Advocate Foundation

- Insured individuals only, family income below 400% FPL + COLI
  - $7,500 max per year for co-pay/deductible costs, may reapply
  - tinyurl.com/PAHelp or copays.org or 800-532-5274

State assistance programs for residents of:

- California, Colorado, Illinois, Massachusetts, New York, Virginia and Washington. Check the reverse for a list of websites.

https://www.projectinform.org/prep-chart
ARE YOU INSURED TO COVER YOUR COSTS FOR PrEP?

YES

1. Gilead Advancing Access Co-pay Card
gileadcopay.com
877 505 6986
- $2,200 max/calendar year
- No income limit
- Covers co-pays, deductibles and co-insurance
- Re-apply annually as needed
- US resident
- Not available for persons with Medicare, Medicare, VA or other state/federal prescription drug programs

2. Patient Access Network Foundation
panapply.org
866 316 7263
- $4,800 initial grant, up to $8,000 max/year, re-apply
- Income <50% FPL ($60,000)
- Based on taxable income (1040 line 7, 1040 EZ line 1)
- Medicare plans only
- Covers co-pays, deductibles and co-insurance
- US resident
- Pharmacies can bill PAN Foundation directly

3. Patient Advocate Foundation (PAF)
tinyurl.com/PAHelp, or pafs.org
- $7,500 max/year, re-apply
- Income <460% FPL ($148,560)
- COLI (cost of living index) adjustments:
  - Based on taxable income (1040 line 7, 1040 EZ line 1)
  - Must be insured (as listed under “YES” above)
  - Covers co-pays
  - Proof of US residence (utility bill, etc.)
  - Case managers available to help resolve medical cost issues (800-532-2274)

NO

U.S. RESIDENT?

What’s the date?

Nov 1 – Jan 31
- Enroll in an insurance marketplace
  - obamacarefacts.com/state-health-insurance-exchange/
  - Avoid Bronze plans, if you can: their generally have higher costs. Silver plans offer lower costs for people earning up to 250% FPL ($50,390). Gold & Platinum plans offer better coverage if you can afford them. Carefully select the right plan for you.

Feb 1 – Oct 31
- below 138% FPL/yr (<$19,528)
- above 138% FPL/yr (>$19,528)

Enroll in the Gilead MAP
- www.truvada.com/truvada-patient-assistance
- $500 FPL 2018 FPL 24,240
- Premium assistance = $5,120 per dependent, higher FPLs in Alaska and Hawaii. 1040E line 7, 1040EZ line 1
- only copay costs - subject to drug discounts

Non-Resident/Undocumented?

Find a public clinic (FOC) that listens and can enroll patients
- truhealthcare.org

Check if you can get insurance through your marketplace employer

IF NO

What’s your income?

below 60,700
- Enroll in the Gilead MAP
- www.truvada.com/truvada-patient-assistance
- $500 FPL 2018 FPL 24,240
- Premium assistance = $5,120 per dependent, higher FPLs in Alaska and Hawaii. 1040E line 7, 1040EZ line 1
- only copay costs - subject to drug discounts

above 60,700
- Retail cost of Truvada

Flexible Spending Account

FSA (flexible spending account)

Employee FSA can help cover up to $2,500 of out-of-pocket costs.

If you’re a resident, these state plans may also help if you’re insured or uninsured:

- California: tinyurl.com/CAPrepP
- Colorado: tinyurl.com/CDAPPP
- Illinois: tinyurl.com/IllinoisPP
- Massachusetts: tinyurl.com/prepPAP (cost of drug services)
- New York: tinyurl.com/NYprepP (cost of services)
- Michigan: tinyurl.com/MIPrepP
- Washington: tinyurl.com/WAPrepP (cost of drug services)

https://www.projectinform.org/prep-chart
# Patient Assistance Program

## 1. Requested Patient Support (Required)

<table>
<thead>
<tr>
<th>CHECK ALL BOXES THAT APPLY</th>
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<tbody>
<tr>
<td>Benefits Investigation</td>
</tr>
<tr>
<td>Prior Authorization and Appeals Information</td>
</tr>
<tr>
<td>Co-pay Coupon Program Enrollment</td>
</tr>
<tr>
<td>Patient Assistance Program (PAP) or Medication Assistance Program (MAP) Eligibility Screening</td>
</tr>
</tbody>
</table>

## 2. Gilead Medication Prescribed (Required)

- **Product Name:**
- **mg:**

If requesting **TRUVADA**, please indicate for:

- Treatment
- PrEP/Prevention

## 3. Patient Information (Required)

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>M.I.</th>
<th>Preferred Language</th>
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</table>

<table>
<thead>
<tr>
<th>Address</th>
<th>Apt./Unit #</th>
<th>City</th>
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<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th>State</th>
<th>Zip Code</th>
<th>Phone #:</th>
<th>SSN# (Last 4 digits):</th>
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</thead>
<tbody>
<tr>
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</table>

<table>
<thead>
<tr>
<th>Email</th>
<th>DOB:</th>
<th>Phone #:</th>
<th>Relationship:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Contact Authorization**

I authorize Advancing Access to leave a detailed message, including the name of my prescription, if I am unavailable when they call:  
[ ] Yes  [ ] No

## 4. Insurance Information (Required)

**Please include a copy of the front and back of insurance card(s)**

<table>
<thead>
<tr>
<th>Patient is insured (Please fill out all of the applicable insurance information below. Attach copy—front and back—of patient card)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patient is uninsured (i.e., no health insurance through any public or private payer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Patient financial information can be found in the optional “Patient Financial Information” Section 9 below</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Primary Insurance:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is this a Medicare Part D plan?</td>
</tr>
<tr>
<td>[ ] Yes  [ ] No</td>
</tr>
</tbody>
</table>

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[Image of a cityscape]
Same Day Start

- Need a negative HIV test
- Exclude patients with known CKD, HBV, pregnancy, acute infection symptoms
- Make sure labs are drawn
- Make sure you have good contact numbers
- Patient walks out of clinic with a prescription
Adherence in young adults is a challenge

Project PrEPare 2 (ATN 110), Oct 2012 - Feb 2015

Follow-up Week

Monthly visits

Quarterly visits

White

Latino

Mixed

Black

Median TFV-DP Concentration

≥ 4 doses per week

Adherence in teens is a bigger challenge

Project PrEPare 3 (ATN 113), Aug 2013 – Mar 2016

15-17 years old

Follow-up Week

Monthly visits

Quarterly visits

Mixed
Latino
Black
White

Median TFV-DP Concentration

≥ 4 doses per week

Pre-exposure Prophylaxis (PrEP) for HIV Prevention

Fast Facts

- Pre-exposure prophylaxis, or PrEP, is a way to help prevent HIV by taking a pill every day.
- People who are at substantial risk for HIV should talk to their doctor about PrEP.
- PrEP must be taken every day to be most effective.

Pre-exposure prophylaxis, or PrEP, is a way for people who do not have HIV to help prevent HIV infection by taking a pill every day. The pill contains two medicines that are also used, in combination with other medicines, to treat HIV. When someone is exposed to HIV through sex or injection drug use, PrEP can help stop the virus from establishing a permanent infection.

When used consistently, PrEP has been shown to greatly reduce the risk of HIV infection in people who are at substantial risk. PrEP is much less effective when it is not taken consistently.

PrEP is a powerful HIV prevention tool, and can be combined with condoms and other prevention methods to provide even greater protection than when used alone. People who use PrEP must commit to taking the drug daily and seeing their healthcare provider every 3 months for HIV testing and other follow-up.

HIV Providers vs. Primary Care Providers

PrEP Awareness, Familiarity, Comfort, and Prescribing Experience among US Primary Care Providers and HIV Specialists

Andrew E. Petroll, Jennifer L. Walsh, [...], and Jeffrey A. Kelly
HIV Providers vs. Primary Care Providers

- **Heard of PrEP**
  - HIV providers: 98%
  - PCPs: 76%

- **Di**
  - HIV providers: 83%
  - PCPs: 28%

- **Discussed PrEP (1 Year)**
  - HIV providers: 64%
  - PCPs: 17%

- **Prescribed PrEP**
  - HIV providers: (data not shown)
  - PCPs: (data not shown)
“Truvada might be a step toward a new sexual liberation—sex parties, singles and swingers, threesomes even for committed couples—and away from the condoms that made our sex safer not just physically but culturally. No wonder it makes people, gay and straight alike, uncomfortable.”
Risk Compensation

• Hypothesized that PrEP availability will lead to more high-risk sex and STIs

  – Increase in # of CAS acts with casual partners but not # of partners, Hoornenburg (Amsterdam)
  – Increase in # of CAS acts while on PrEP, highest rate of CAS was in PrEP non-adherent partners, Newcomb (Chicago)
  – Increase incidence of rectal chlamydia and syphilis after initiation of PrEP, Beymer (Los Angeles)
  – Increase in condom use among adolescents in South Africa
“Clinicians should continue to support PrEP as a supplement rather than replacement of condoms”

- Samuel Jenness, Emory University

PLoS One, 2017
Prevention of HIV-1 Infection with Early Antiretroviral Therapy

Myron S. Cohen, M.D., Ying Q. Chen, Ph.D., Marybeth McCauley, M.P.H., Theresa Gamble, Ph.D., Mina C. Hosseinipour, M.D., Nagalingeswaran Kumarasamy, M.B., B.S., James G. Hakim, M.D., Johnstone Kumnwenda, F.R.C.P., Beatriz Grinsztejn, M.D., Jose H.S. Piloto, M.D., Sheela V. Godbole, M.D., Sanjay Mehendale, M.D., et al., for the HPTN 052 Study Team
PrEP Conclusions

• HIV risk is huge in the MidSouth, and astronomical in our gay and bi- African American men
• PrEP works . . . if you take it
• You, too, can prescrbe PrEP
• PrEP needs to be a primary care thang
stigma
/ˈstɪgma/
stigma
/ˈstɪɡmə/

1. A mark of disgrace that sets a person apart
2. Visible sign or characteristic of a disease
stigma
/ˈstɪɡmə/

1. A mark of disgrace that sets a person apart
2. Visible sign or characteristic of a disease
3. Marks corresponding to those left on Jesus’ body by the Crucifixion
I AM NOT... DIRTY AN ADDICT Dying Helpless Being Punished A victim Alone Sick A stereotype A Whore Guilty

THE STIGMA PROJECT / LIVE HIV NEUTRAL

SILENCE DISCRIMINATION HIV / AIDS IGNORANCE STIGMA FEAR
Reaching out to the church
IGNORANCE = FEAR

SILENCE = DEATH ▲ FIGHT AIDS ▲ ACT UP
I John 4:18

There is no fear in love,
But perfect love drives out fear . . .
2014
NHS sets up HIV Clinical Reference Group to write policy on commissioning PrEP

2015
Landmark PROUD study published in UK

Spring 2016
Plans by NHS England to fund PrEP abandoned

Aug 2016
High Court rules in favour of PrEP in UK

Further delays...
>4000 new HIV cases per year in the UK

2010
Grant et al publishes novel study on use of Truvada as PrEP

2016
Over 25,000 people in the US now using PrEP

Jan 2016
France licences and funds PrEP

2015
Thai Red Cross launches major PrEP awareness campaign with ‘Adam’s Love’ social media site

2016
Australia approves use of PrEP

HIV Preexposure Prophylaxis as a Gateway to Primary Care


Objectives: To determine whether HIV preexposure prophylaxis (PrEP) use is associated with use of non-HIV-related health care.

Methods: We conducted a cross-sectional study of potential PrEP candidates at a Boston, Massachusetts, community health clinic during 2012 to 2016, comparing the proportion of PrEP users and non-PrEP users receiving primary care.

Results: Of 5857 PrEP candidates, 2047 (35%) were prescribed PrEP. After adjustment for demographics and number of visits, more PrEP users received influenza vaccination (prevalence ratio [PR] = 1.28; 95% confidence interval [CI] = 1.20, 1.37); tobacco screening (PR = 1.05; 95% CI = 1.02, 1.09), and depression screening (PR = 1.07; 95% CI = 1.04, 1.11) compared with non-PrEP users. After additional adjustment for diabetes, hypertension, and overweight or obesity, more PrEP users received glucose testing (PR = 1.64; 95% CI = 1.56, 1.72) but fewer received hemoglobin A1c testing (PR = 0.81; 95% CI = 0.71, 0.93) compared with non-PrEP users.

Conclusions: PrEP use was associated with receipt of influenza vaccination, tobacco and depression screening, and glucose but not hemoglobin A1c testing. Among PrEP users receiving routine care, the benefits of PrEP may extend to behavioral health, mental health, and prevention and treatment of other infections and chronic diseases.

Published online ahead of print July 19, 2018: e1-e3. doi:10.31438/AJPH.2018.304661

Daily oral preexposure prophylaxis (PrEP) using tenofovir disoproxil fumarate is highly protective against HIV infection.1-3 Clinical monitoring among PrEP users facilitates identification and treatment of other infections, including hepatitis C and bacterial sexually transmitted infections (STIs).4 PrEP may also provide a gateway to other types of health care for men who have sex with men and other individuals at risk for HIV infection, just as family planning clinics provide a gateway to care for many women.5 However, to our knowledge, no studies have evaluated whether PrEP use is associated with increased receipt of non-PrEP-related health care.

METHODS

We conducted a cross-sectional study at Fenway Health, a community health center in Boston, Massachusetts, specializing in care for sexual and gender minorities.6 Fenway Health uses an electronic health record, which supports preventive care by prompting clinicians about recommended vaccinations and screenings. For each year during 2012 to 2016, we included HIV-uninfected patients tested for rectal STIs, indicating HIV risk and thus eligibility for PrEP. We assessed PrEP prescriptions and receipt of primary care during each calendar year.

We measured 4 primary care outcomes (1) influenza vaccination, which is recommended annually for almost everyone 6 months and older; (2) 3 screenings for tobacco use and depression, which are clinical performance measures for federally qualified health centers; and (4) hemoglobin A1c or glucose tests for diabetes screening or monitoring. Diabetes screening is recommended for overweight or obese adults older than 40 years and for younger adults with diabetes risk factors; these 2015 guidelines updated previous recommendations to screen adults with hypertension.

We used the χ² test and the t test to compare characteristics of PrEP users and nonusers. We used Poisson models to obtain prevalence ratios (PRs) comparing the proportions of PrEP users and nonusers who received each primary care outcome. Because patients could be included in the data set more than once if tested for rectal STIs in multiple years, we used generalized estimating equations to account for repeated measures. Adjusted models included age, gender, race/ethnicity, insurance type, year, and annual number of Days medical visits. Models for hemoglobin A1c or glucose testing additionally included diabetes and hypertension, as noted on the clinical problem list during the same year as the rectal STI test, and overweight or obesity, as noted on the problem list or on the basis of a recent body mass index of 25 kilograms per meter squared or greater.

We conducted analyses in SAS version 9.4 (SAS Institute, Cary, NC). Tests were 2 sided and the cutoff for statistical significance was P < .05.

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