Winter Webinar Series: February 2021

STIs & PrEP for People Who Inject Drugs

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Family Medicine Southwest Washington

Medical Director for Testing (WA),

Cascade AIDS Project

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PrEP Navigator, Salem

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Donny Beer

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Land Acknowledgement

The Oregon AETC would like to take a moment to recognize the unceded ancestral lands of the first people. We pay respects to their elders, past and present. Please take a moment to consider the many legacies of violence, displacement, migration, and settlement that bring us together here today.

Infectious diseases do not discriminate. As part of our response to the HIV epidemic, we must elevate those groups who have been historically marginalized in our communities. It is our responsibility to listen, recognize, and bring their experiences to the forefront.

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Your Zoom Hosts

Send a private chat to these folks for any technical issues

Abby Welter

Rachel Greim

Ashley Allison

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This presentation is being recorded

- In order to have this presentation as a resource, we are recording this session and will provide the video following the event.
- All chats (private or public) will be automatically downloaded.
- Please participate and enrich our presentation.

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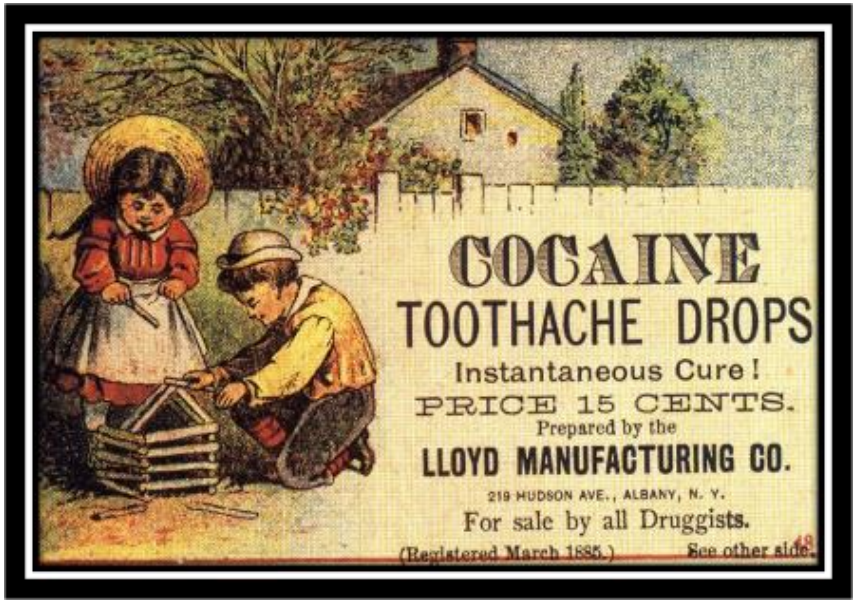

I have no financial conflict of interest.

I won't recommend any off-label use.

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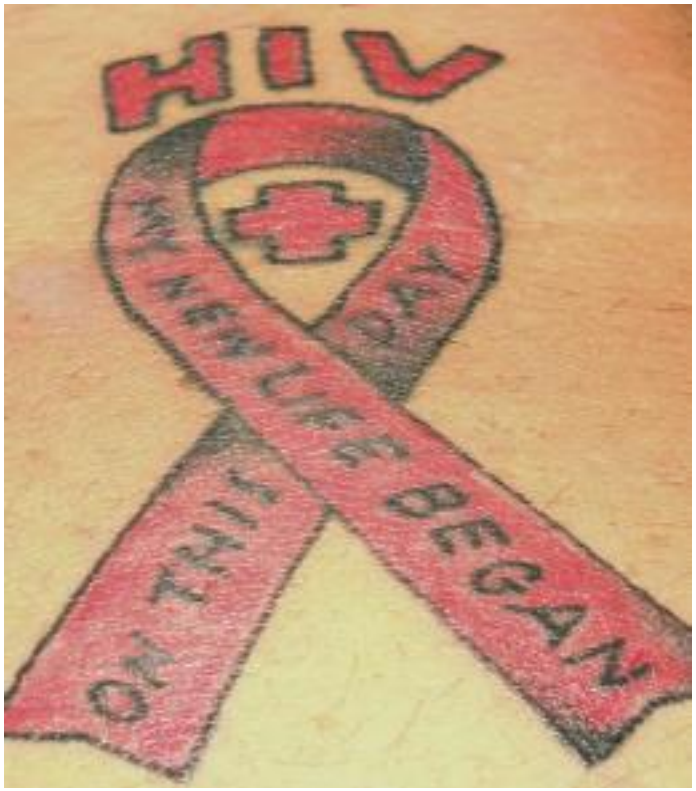
Goals for today!



- Screen and treat common STIs (2020 guidelines)
- Recognize common STIs and HIV
- Describe which PrEP to offer & who benefits most
- Increase comfort in discussing & prescribing PrEP

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Screening & Treating STIs

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In 1999, there were 14 cases of syphilis in Oregon. How many cases were there in 2019?

A. 112

B. 335

C. 596

D. 810

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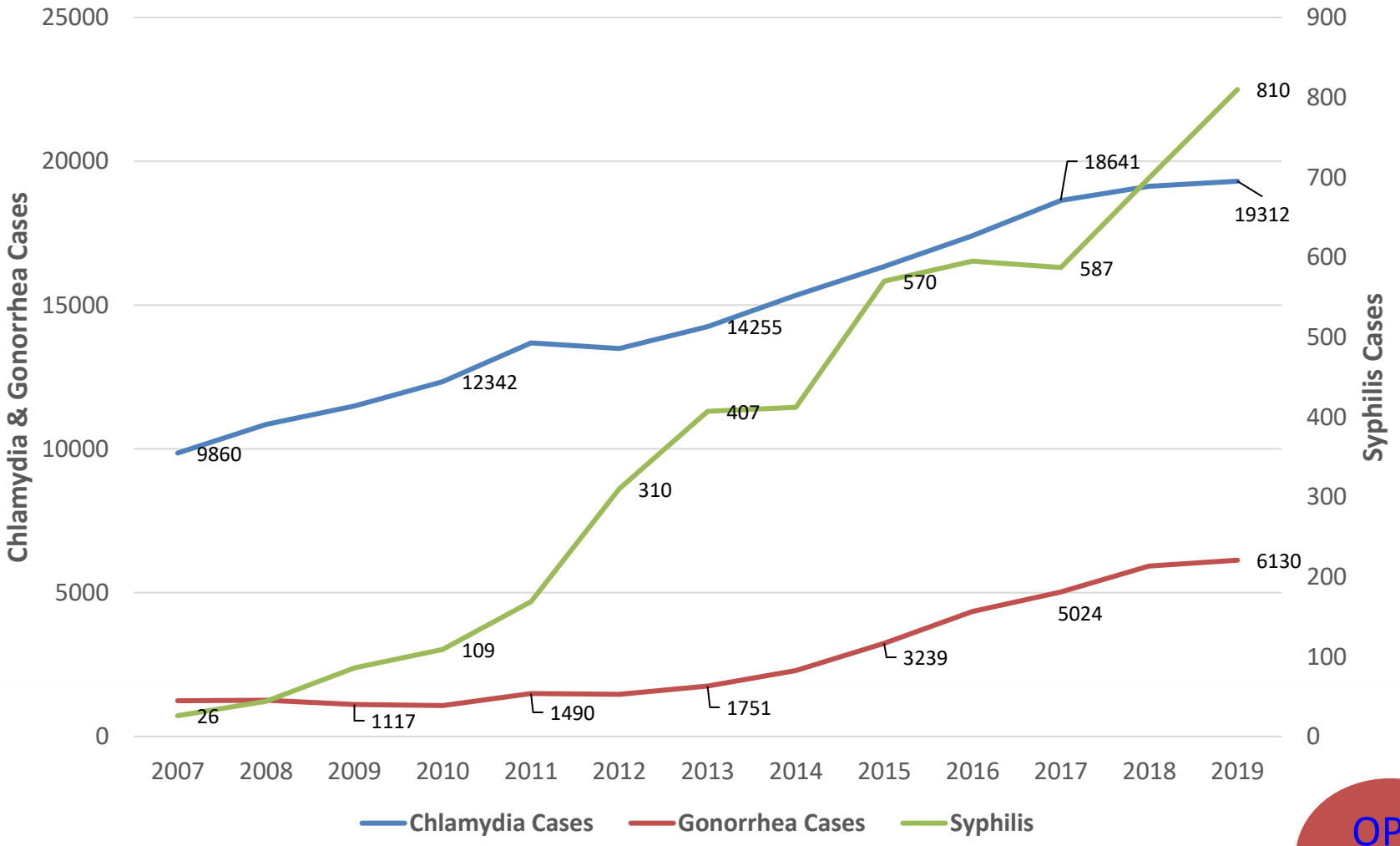
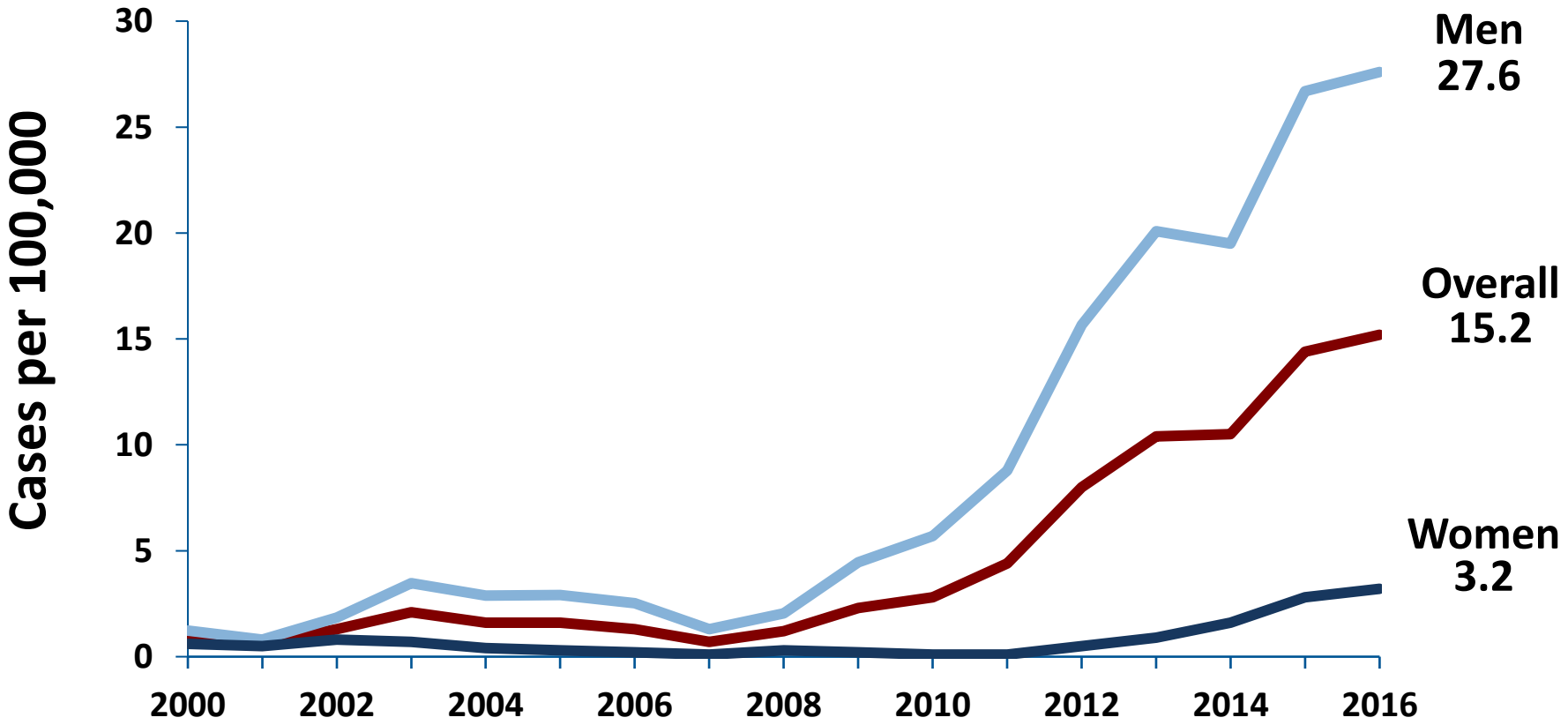
Gonorrhea, Chlamydia and Syphilis Cases in Oregon, 2007-2019



OPB Story

Rates of early syphilis by sex and year, Oregon, 2000-2016



- >90% of male cases are in MSM
- Approximately half of them also have HIV

Slide courtesy Sean Schafer, Oregon Health Authority, HIV, STI, TB Division

www.syphaware.org

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Let's start Screening

- Samantha is a 25 y.o. woman who has been using IV meth and trading sex for drugs. She wants to be screened for everything. She is asymptomatic.

- What do you screen her for?

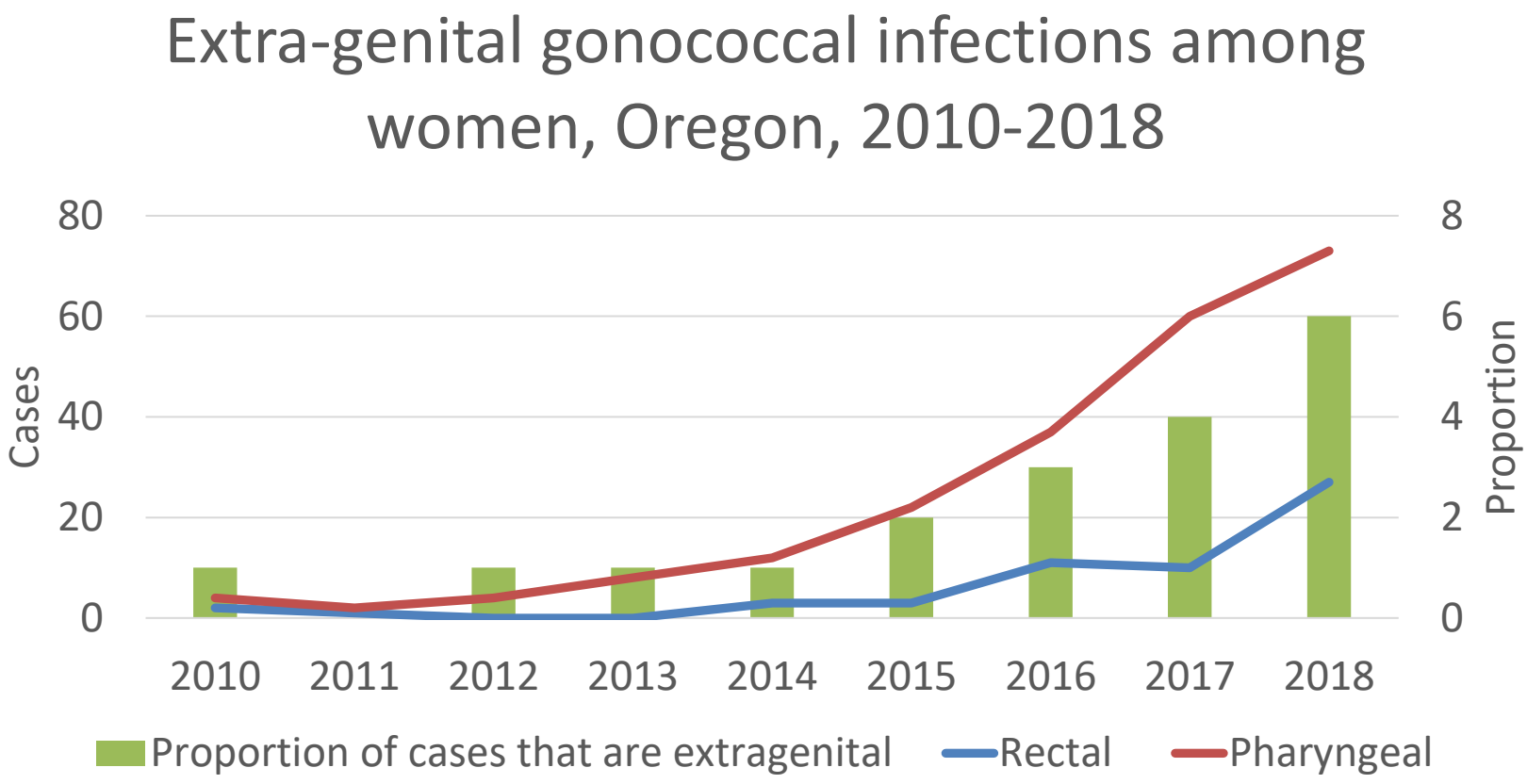
What do you screen her for?

A. Gonorrhea/Chlamydia
B. Trichamonas
C. HIV/RPR
D. Hep A IgG, Hep B BsAb, Hep B BsAg, Hep B IgG, Hep C Ab
E. HSV 1 & 2
F. A-D
G. A-E

Where would you screen?

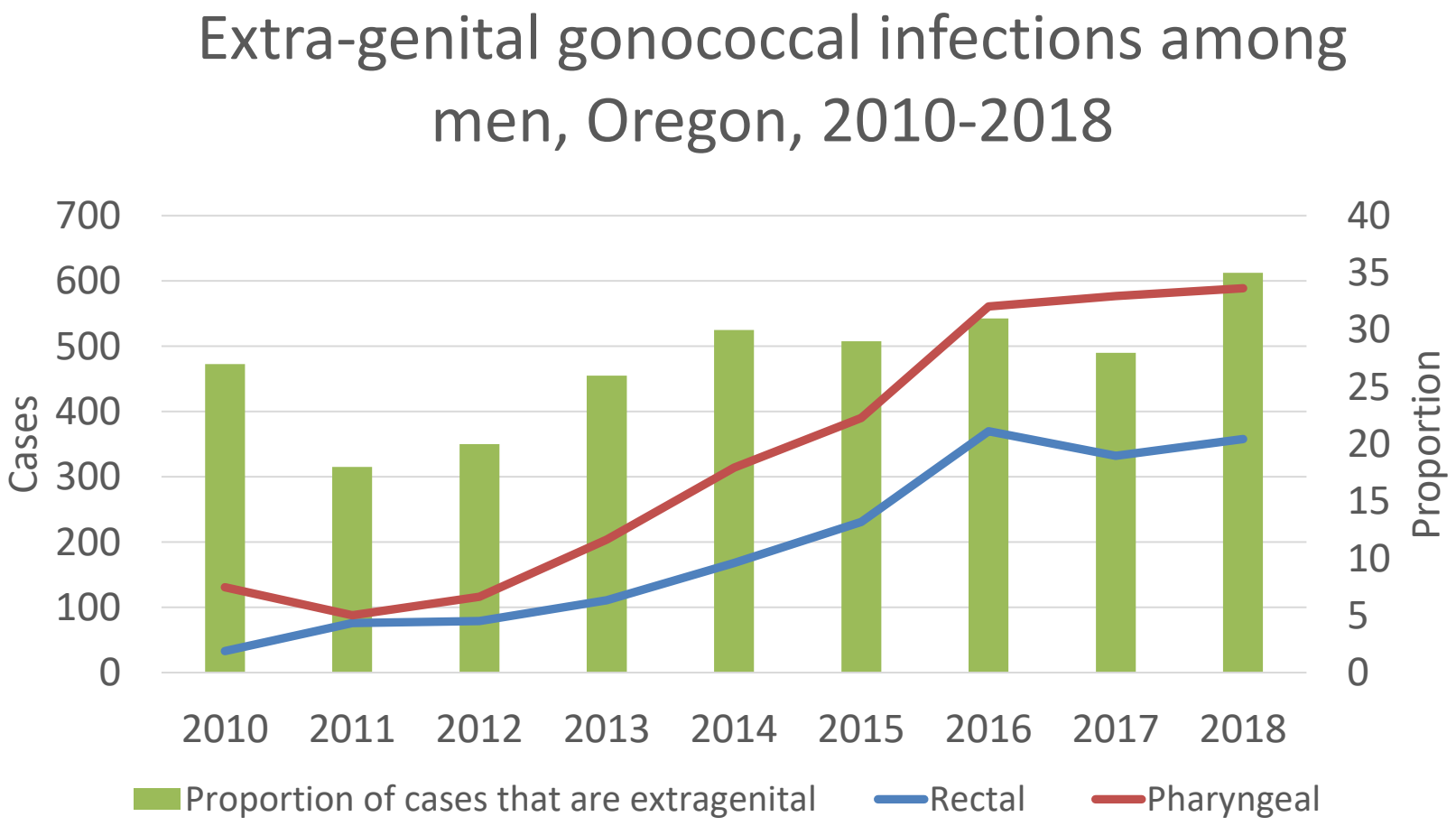
A. Urine or cervical
B. Oral
C. Rectal
D. It depends
E. I don't know

Extra-Genital Infections Increase by >1000% in Women



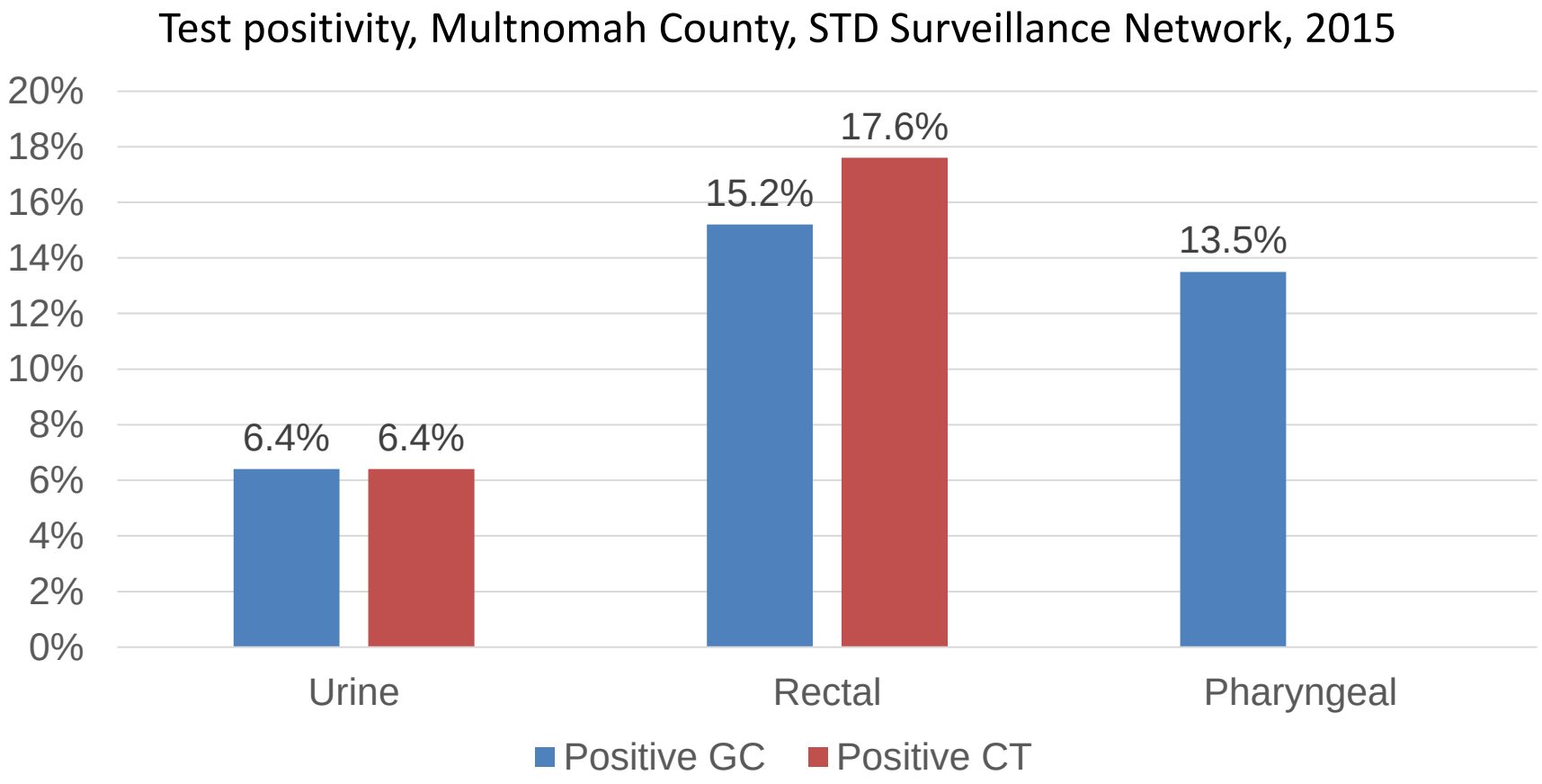
Slide Courtesy Tim Menza, MD Oregon Public Health Division

Extra-genital infections, by gender



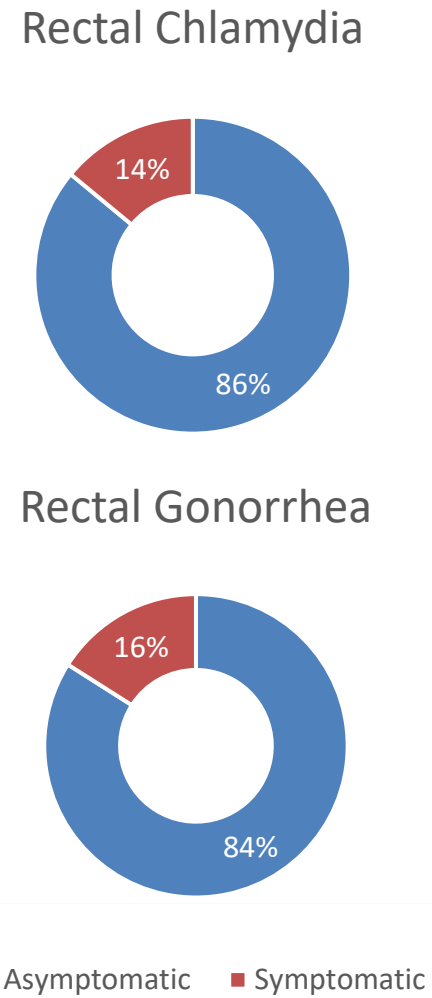
Slide Courtesy Tim Menza, MD Oregon Public Health Division

MSM are more likely to have extragenital GC/CT than urethral GC/CT



Slide Courtesy: Dr. Tim Menza, Oregon Health Authority

Asymptomatic extra-genital GC/CT leads to missed infections among MSM



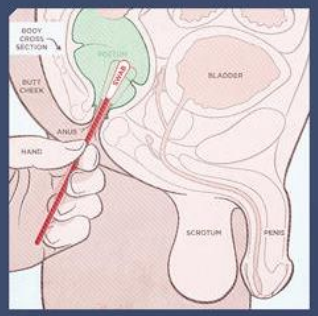
- 90% of urethral gonorrhea and 58% of urethral chlamydia are symptomatic
- Among MSM 95% of all gonorrhea infections were missed with urine screening alone due to asymptomatic extra genital GC

Slide Courtesy: Dr. Tim Menza, Oregon Health Authority

Kent, STD, 2005; Marcus, STD, 2011.

TEST YOURSELF

The Visual Guide for a
Self-collected Rectal Swab




1 Wash your hands with soap and water.


2 Remove the transport tube and collection swab from packaging.

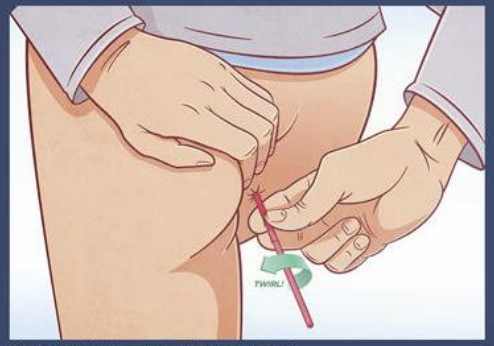

3 Label the transport tube with your **Patient label**.


4 Label the transport tube with the **Rectal label**.


5 Open the package containing the collection swab.


6 Firmly hold the collection swab above the dashed line (closer to the swab tip).


7 Get into a comfortable position that allows you access to your anus. Putting your foot on the step stool may help.



8 Gently insert the swab 1 inch into the rectum and twirl the swab in a circle at least 5 times.

9 Unscrew the cap from the transport tube.

10 Place the collection swab into the trans-

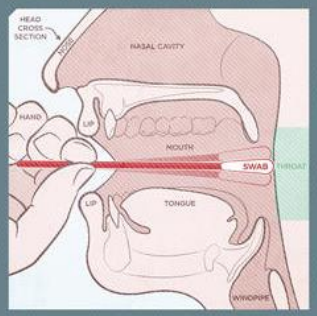
11 Put the cap back on the transport tube


12 Put the transport tube into the


13 Wash your hands with soap and water.

TEST YOURSELF

The Visual Guide for a
Self-collected Throat Swab




1 Wash your hands with soap and water.


2 Remove the transport tube and collection swab from packaging.


3 Label the transport tube with your **Patient label**.


4 Label the transport tube with the **Throat label**.


5 Open the package containing the collection swab.


6 Hold the collection swab far enough from the tip.

7 Say AHH... and reach the collection swab into your mouth to gently touch your throat.


8 Gently rub the swab tip on your throat side to side, up and down at least 5 times.

9 Unscrew the cap from the transport

10 Place the collection swab into the

11 Put the cap back on the transport tube


12 Put the transport tube into the


13 Wash your hands with soap and

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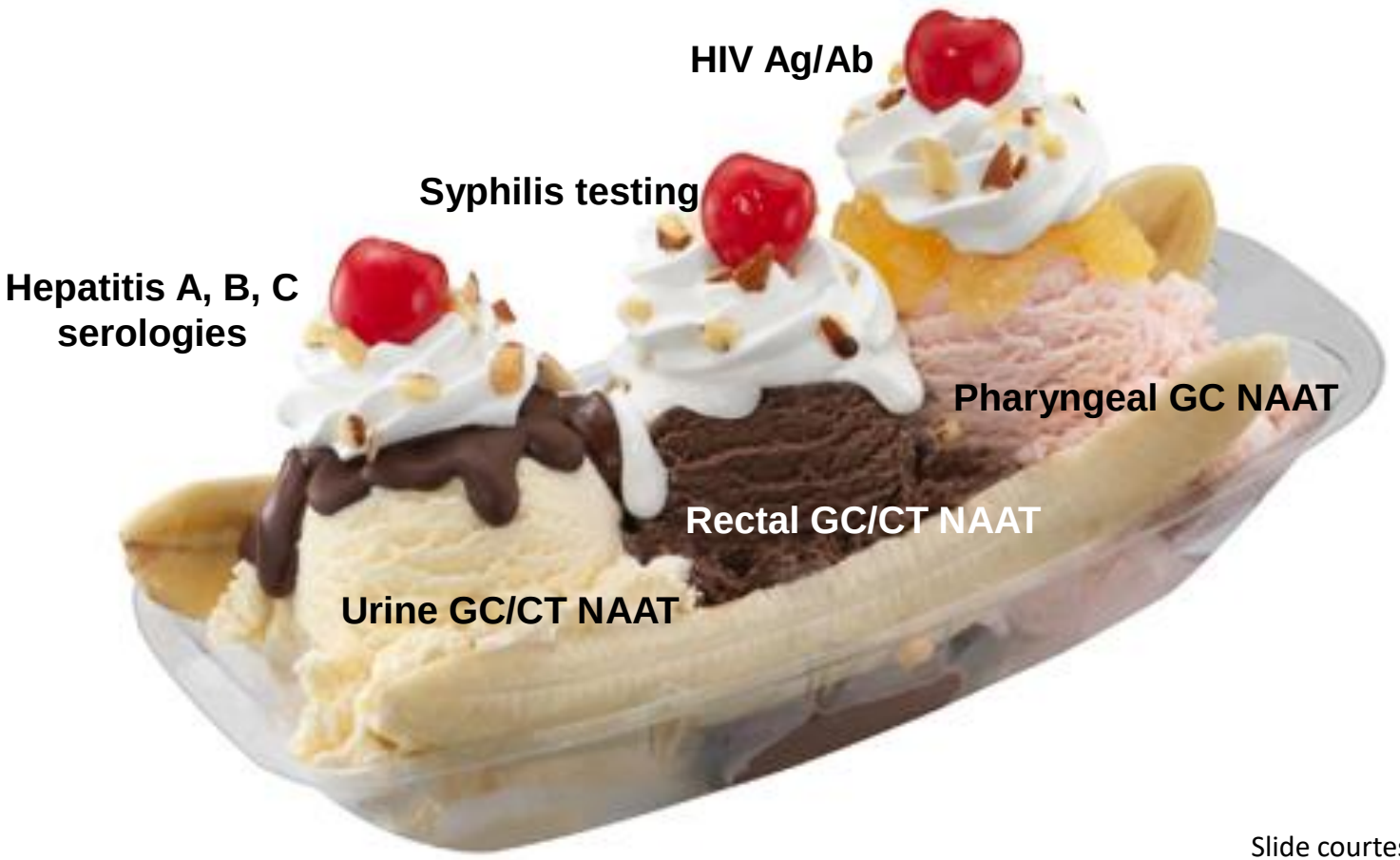
STI Care of the Future: Complete Screening



Slide courtesy of Dr. Tim Menza

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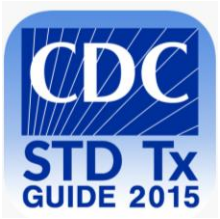
Common STIs: Screening & Treating



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Diagnosis & Etiology of

Slide Courtesy Hillary Liss, MD University of Washington

Diagnosis & Etiology of Urethritis

Gonococcal Urethritis

- ***Neisseria gonorrhea***

Non-Gonococcal Urethritis (NGU)

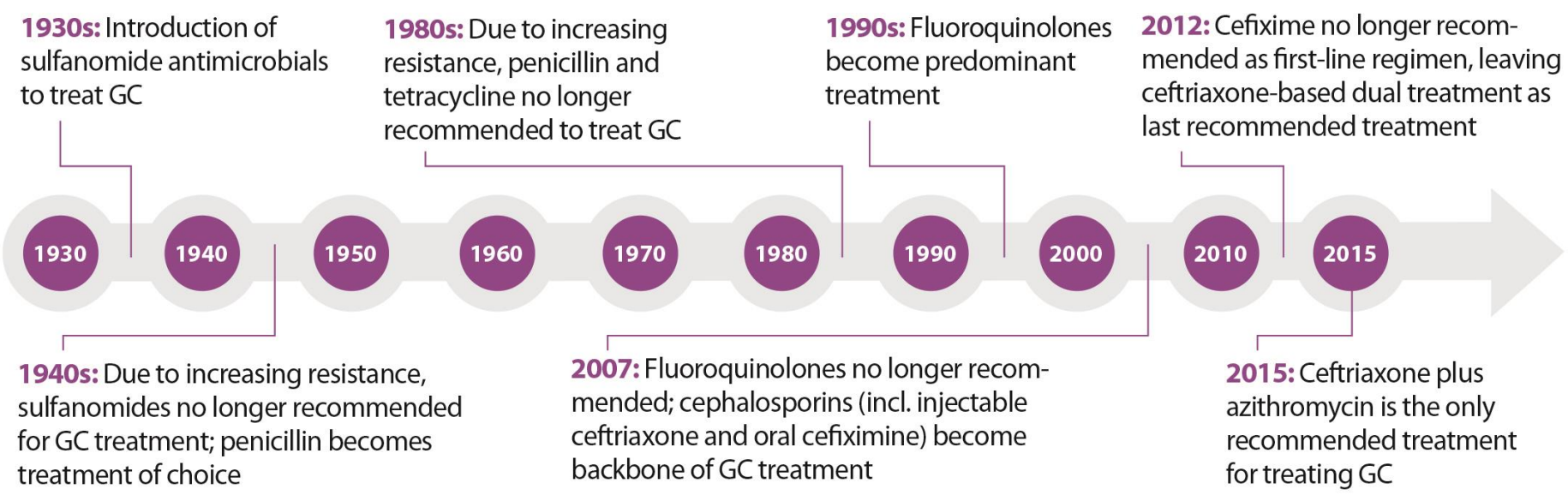
- *Chlamydia trachomatis* (15-40%)
- *Ureaplasma urealyticum*
- *Mycoplasma genitalium* (15-25%)
- *Trichomonas vaginalis*
- Herpes simplex virus
  (usually accompanied by painful ulcers or vesicles)

Work-up: Obtain GC/CT PCR of the urine to

confirm the diagnosis (Gonorrhea/Chlamydia NAAT)

Slide Courtesy Hillary Liss, MD University of Washington

Timeline of GC Resistance



Source: CDC

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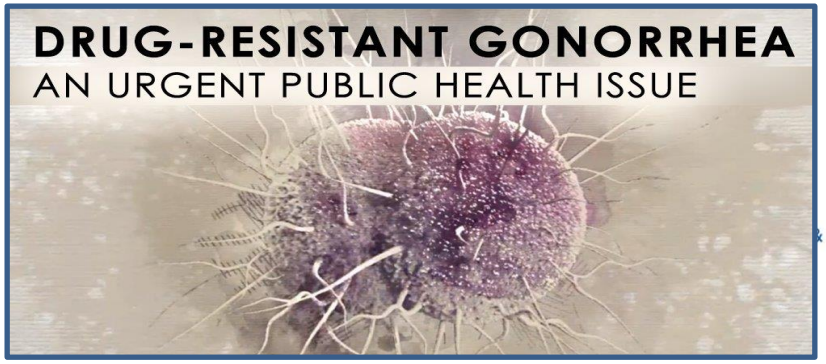
Resistant Gonorrhea

- Ceftriaxone resistance being seen in countries where antibiotics are OTC (e.g. SE Asia)
  - in UK, treating these with IV ertapenem
- ? Commensal Neisseria species plasmid exchange → resistance
  - Pharyngeal GC response rate
    - 76% if PO antibiotic used
    - 90% if IV/IM antibiotic used
    - Test of cure



Liu et al. 2015. Microbiology 161: 1297–1312
Roberts et al. 1988 Antimicrob Agents Chemot. 32:1430-2.

Due to increasing GC resistance….

Morbidity and Mortality Weekly Report (*MMWR*)

CDC

Update to CDC's Treatment Guidelines for Gonococcal Infection, 2020

Weekly / December 18, 2020 / 69(50);1911–1916

Sancta St. Cyr, MD[1]; Lindley Barbee, MD[1,2]; Kimberly A. Workowski, MD[1,3]; Laura H. Bachmann, MD[1]; Cau Pham, PhD[1]; Karen Schlanger, PhD[1]; Elizabeth Torrone, PhD[1]; Hillard Weinstock, MD[1]; Ellen N. Kersh, PhD[1]; Phoebe Thorpe, MD[1] (View author affiliations)

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CDC recommended regimens for uncomplicated gonococcal infections of the cervix, urethra, or rectum

2015	2020
Regimen for uncomplicated gonococcal infections of the cervix, urethra, or rectum	**Regimen for uncomplicated gonococcal infections of the cervix, urethra, or rectum**
Ceftriaxone **250 mg** IM as a single dose PLUS azithromycin 1 g orally in a single dose, **>45 kg**	Ceftriaxone **500 mg** IM as a single dose for persons weighing **<150 kg** (300 lb)
No recommendations regarding alternative dosing strategies based on weight	For persons weighing ≥150 kg (300 lb), **1 g** of IM ceftriaxone should be administered.
Chlamydia empirically treated	If chlamydial infection has not been excluded, providers should treat for chlamydia with **doxycycline 100 mg orally twice daily for 7 days.** During pregnancy, azithromycin 1 g as a single dose is recommended to treat chlamydia.

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CDC STD Tx GUIDE 2015

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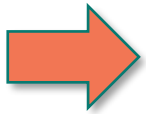
CDC recommended alternative regimens for uncomplicated gonococcal infections of the cervix, urethra, or rectum
(if ceftriaxone is not an option)

2015	2020
Alternative regimens for uncomplicated gonococcal infections of the cervix, urethra, or rectum if ceftriaxone is not available:	**Alternative regimens for uncomplicated gonococcal infections of the cervix, urethra, or rectum if ceftriaxone is not available:**
Gentamicin 240 mg IM as a single dose plus azithromycin 2 g orally as a single dose	Gentamicin 240 mg IM as a single dose plus azithromycin 2 g orally as a single dose
Cefixime 400mg plus azithromycin 1gm Po	**OR** **Cefixime 800** mg orally as a single dose.
Chlamydia empirically treated	If treating with cefixime, and chlamydial infection has not been excluded: providers should treat for **chlamydia with doxycycline 100 mg orally twice daily for 7 days.** During pregnancy, azithromycin 1 g as a single dose is recommended to treat chlamydia.



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CDC recommended regimens for uncomplicated gonococcal infections of the pharynx

2015

Ceftriaxone 250 mg IM as a single dose PLUS azithromycin 1 g orally in a single dose,

No recommendations regarding alternative dosing strategies based on weight

Chlamydia empirically treated

2020

Recommended regimen for uncomplicated gonococcal infections of the pharynx

Ceftriaxone **500 mg IM** as a single dose for persons weighing <150 kg (300 lb)

- For persons weighing ≥150 kg (300 lb), **1 g** of IM ceftriaxone should be administered.

If chlamydia coinfection is identified when pharyngeal gonorrhea testing is performed, providers should treat for chlamydia with doxycycline 100 mg orally twice a day for 7 days. During pregnancy, azithromycin 1 g as a single dose is recommended to treat chlamydia.

No reliable alternative treatments are available for pharyngeal gonorrhea. *For persons with a history of a beta-lactam allergy, a thorough assessment of the reaction is recommended.**

For persons with an anaphylactic or other severe reaction (e.g., Stevens Johnson syndrome) to ceftriaxone, consult an infectious disease specialist for an alternative treatment recommendation.

Dropping azithromycin = better antimicrobial stewardship!

- Increased incidence of azithromycin resistance among other potential pathogens:
  - *Streptococcus pneumoniae*
  - *Mycoplasma genitalium*
  - sexually transmissible enteric pathogens
    - (e.g., Shigella and Campylobacter)
- Doxycycline better option for Chlamydia infections of the rectum

For now, Current CHLAMYDIA CDC Treatment Guidelines

Recommended Regimens

Azithromycin 1 g orally in a single dose

OR

Doxycycline 100 mg orally twice a day for 7 days

Alternative Regimens

Erythromycin base 500 mg orally four times a day for 7 days

OR

Erythromycin ethylsuccinate 800 mg orally four times a day for 7 days

OR

Levofloxacin 500 mg orally once daily for 7 days

OR

Ofloxacin 300 mg orally twice a day for 7 days

http://www.cdc.gov/std/tg2015/chlamydia.htm

After reporting, Expedited Partner Treatment (EPT)

1. Not for MSM (Men who have sex w men)
2. You need a separate Rx – must indicate for “EPT” on script
3. It’s typically $5-$20
4. Now, just for Chlamydia

https://www.oregon.gov/oha/ph/DISEASESCONDITIONS/HIVSTDVIRALHEPATITIS/SEXUALLYTRANSMITTEDDISEASE/Pages/partnertherapy.aspx

https://www.cdc.gov/std/ept/gc-guidance.htm

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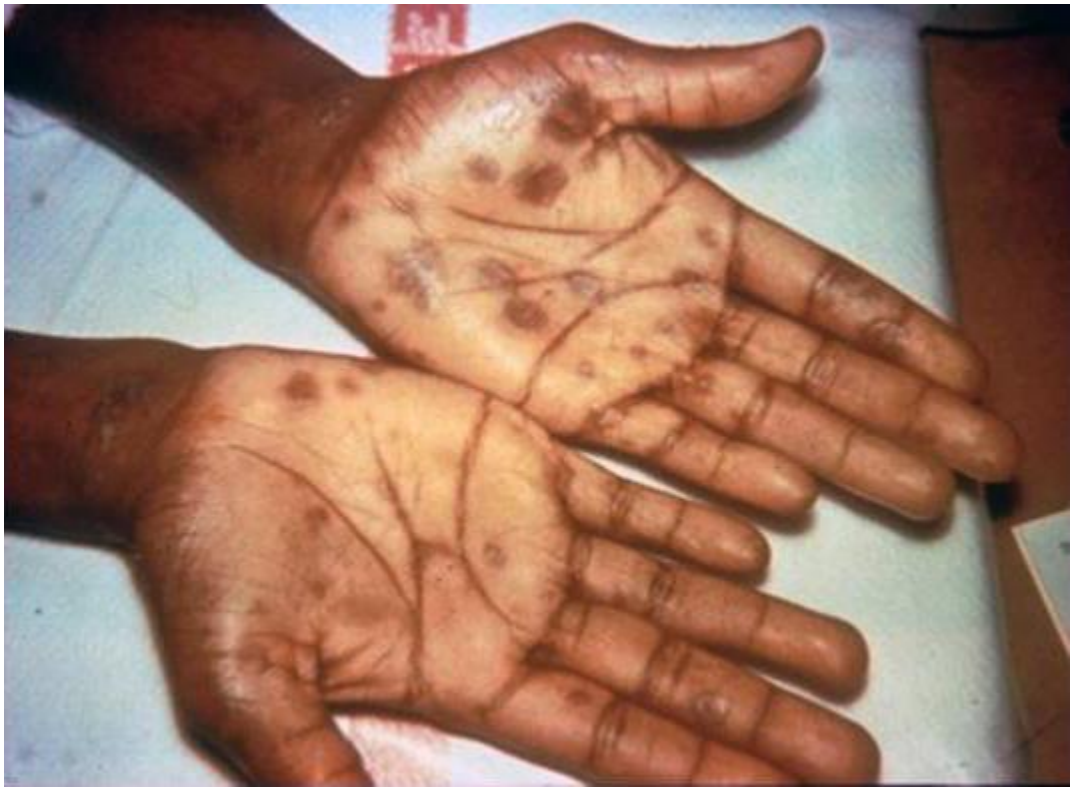
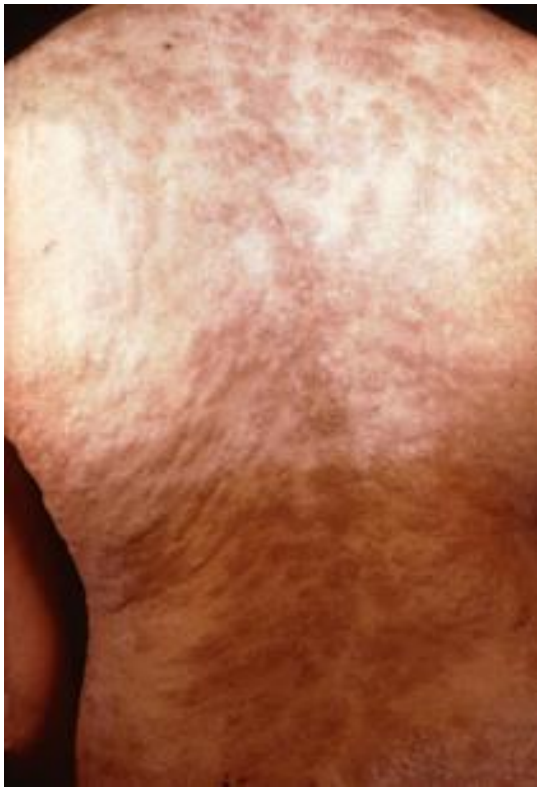
What is it?





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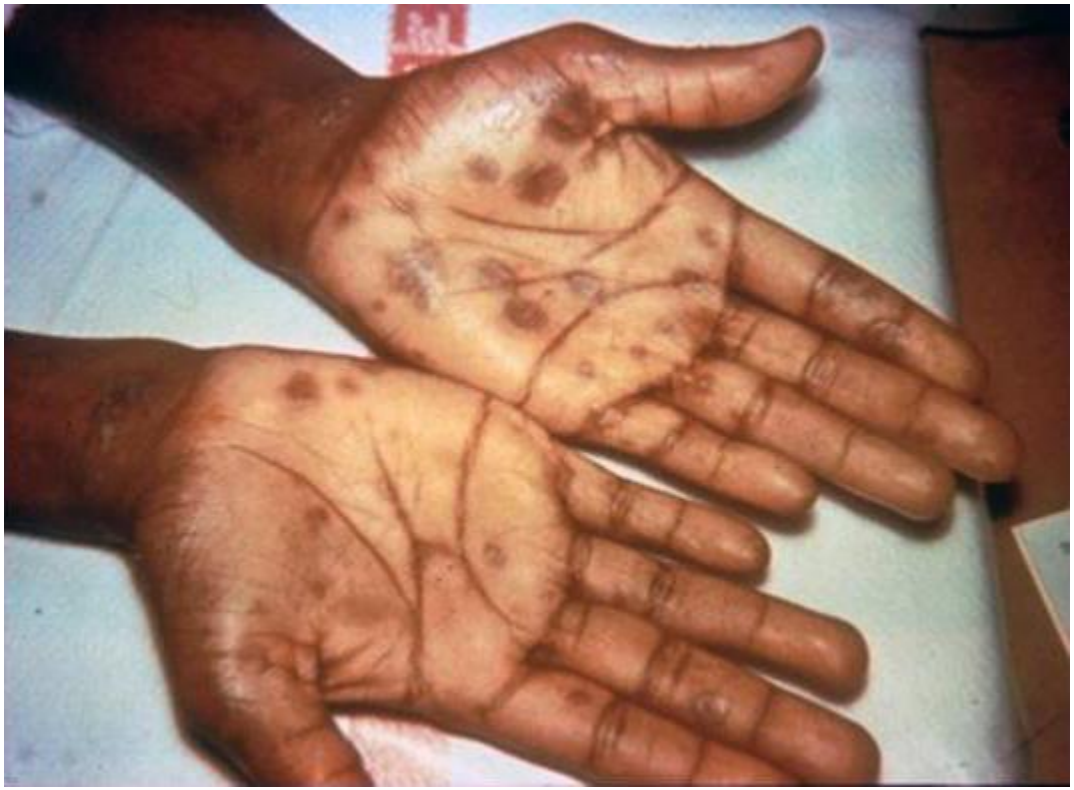
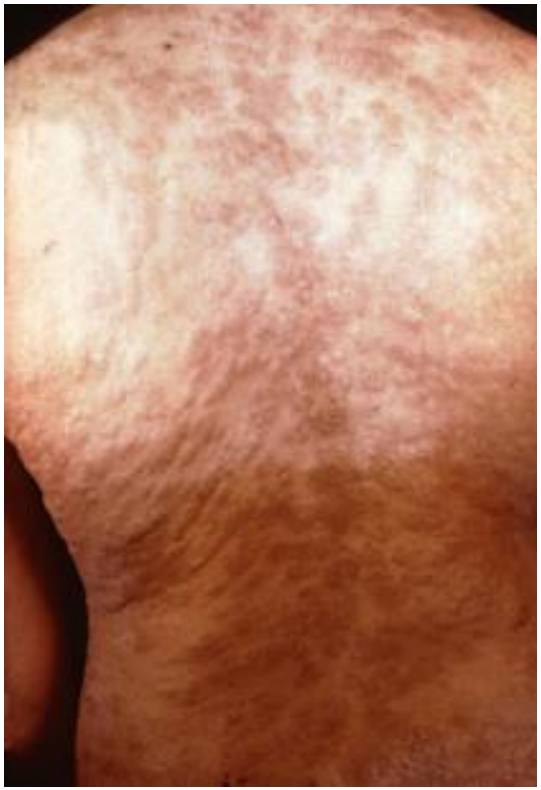
Secondary Syphilis Rash





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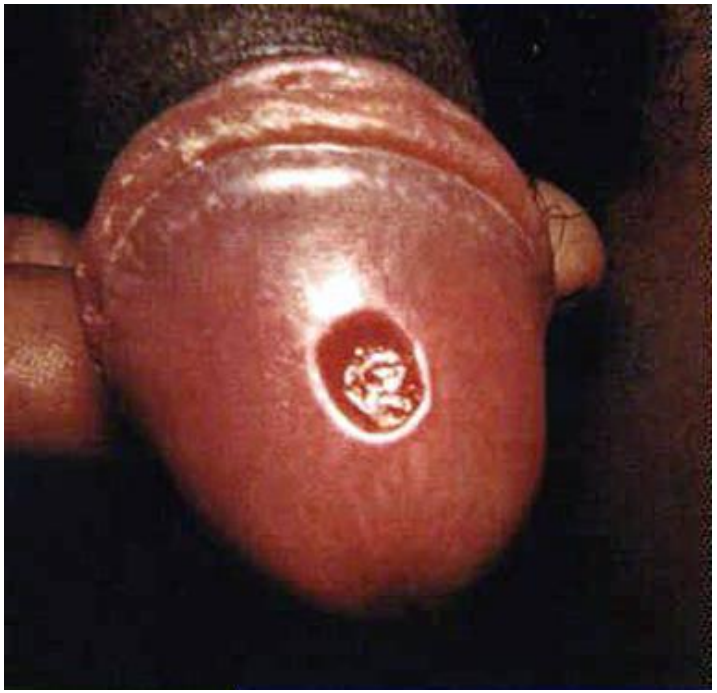
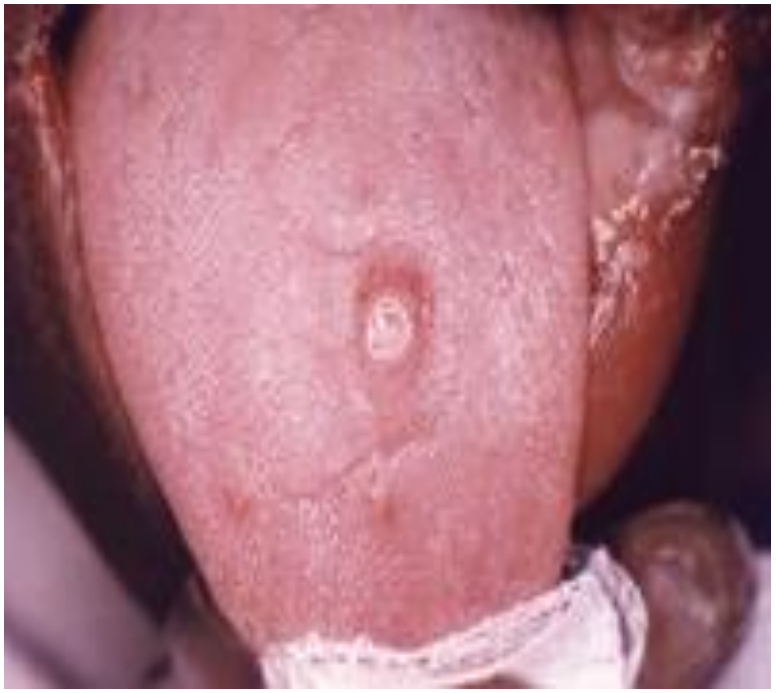
Primary Chancre

Genital



Oral



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Syphilis Dx & Tx Pearls

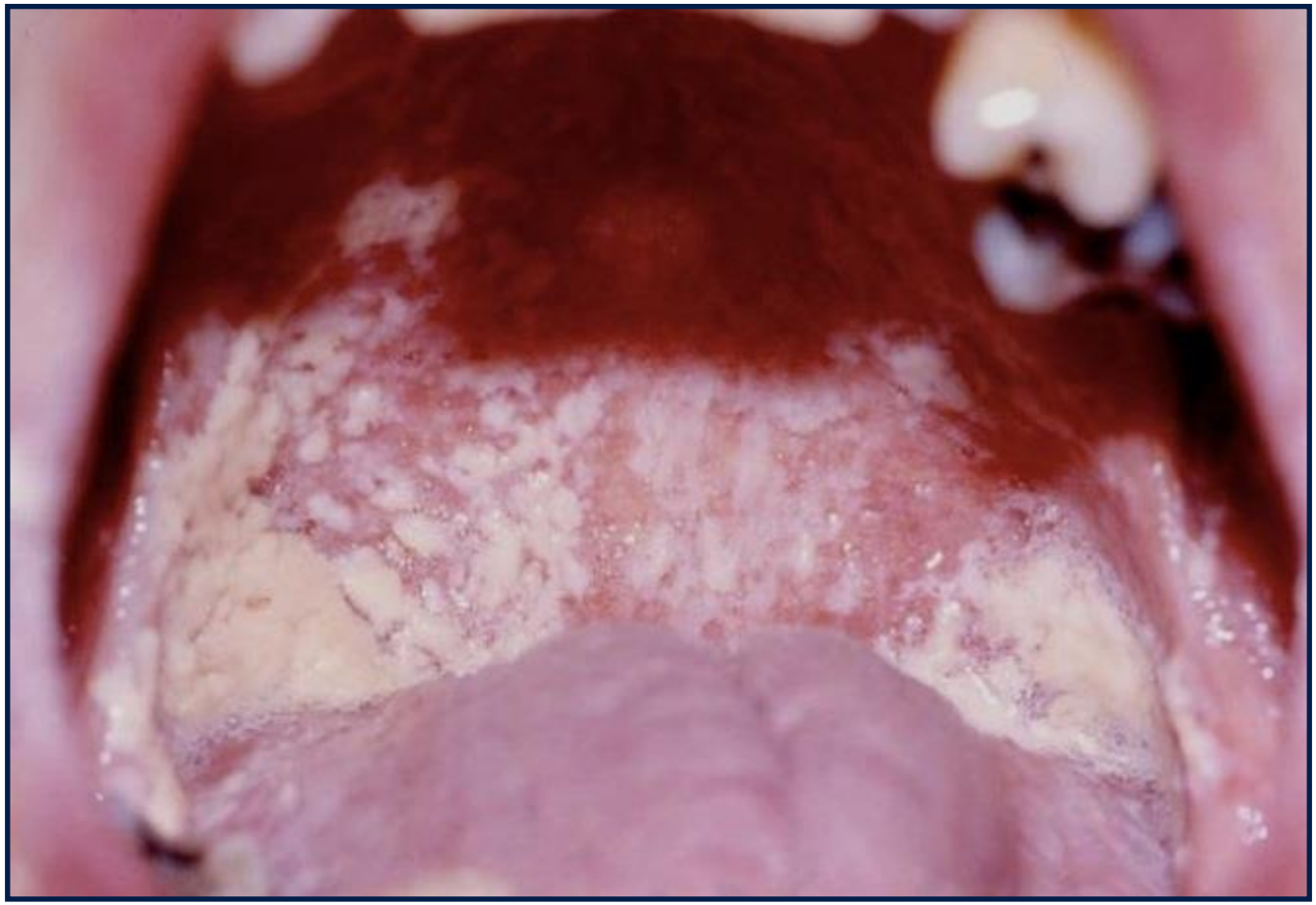
- *Dx: + treponemal & + non-trep test. Ask PH if q's.*
- *Primary, secondary, or early latent < 1 year*
  - **benzathine PCN G 2.4 million units IM x 1**

Late latent > 1 year, or unknown

- **PCN G 2.4 MU @ 1 week intervals X 3**

- *Neurosyphilis*
  - Consult ID: optic/otic syphilis treated as neurosyphilis

At high risk?



CDC recommends HIV tests for:

- Outpatients at high risk **’87**
- Outpatients with a possible STD **‘87**
- Any patient willing to be tested in high prev area **‘93**
- All pregnant patients **’95**
- All patients between 13 and 64 **‘06**

MMWR Branson et al. (2006) 55: 1-17.

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US Preventative Service Task Force: Screen everyone at least once

- **Screen all adolescents and adults 15-64 and pregnant women for HIV. A Rec (USPTF 2013).**
- **Screen all people at high risk for HIV at least annually.**

Screening for HIV: Systematic Review to Update the 2005 U.S. Preventive Services Task Force Recommendation. *Ann Intern Med. 2012;157(10):706-718*

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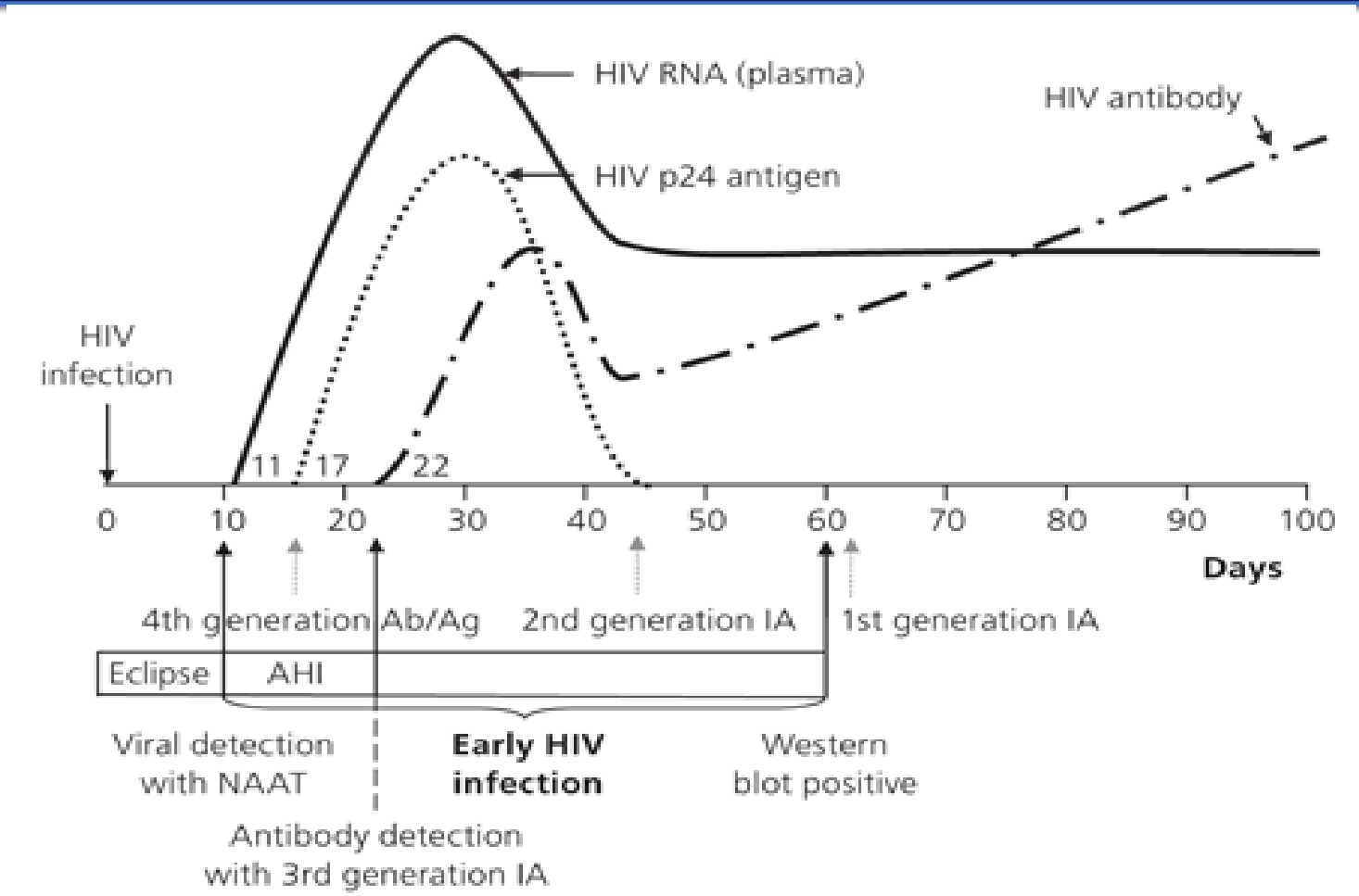
Consent and Pretest Information

Voluntary testing

- Source: CDC. MMWR 2006;55(no. RR-14):1-17.

HIV Tests: Time to Positivity



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State of HIV testing in Oregon

- Only 41% of Oregon adults have ever been tested for HIV
- During 2008 – 2012, 39% of Oregonians newly diagnosed with HIV infection met AIDS criteria within 1 year.

CD Summary: Screen Your Patients for HIV, Oregon Public Health Division, Oregon Health Authority. February 13, 2015 Vol. 64, No. 2

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What are our barriers? How do we do better?

PrEP: Who, What, and How?

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PrEP = tenofovir plus emtricitabine

What is PrEP?

- A prevention strategy in which a **high-risk** individual takes a medication **regularly** (along with continued behavioral **risk-reduction** strategies) to prevent HIV infection
- Emtricitabine/tenofovir disoproxil fumarate (FTC/TDF) (*Truvada*) approved for HIV PrEP by the FDA in 2012 & for adolescents 2018
- Emtricitabine/tenofovir alafenamide (FTC/TAF) (*Descovy*) approved October 2019
- USPSTF recommends PrEP for people w/ high risk of HIV (July 2019)

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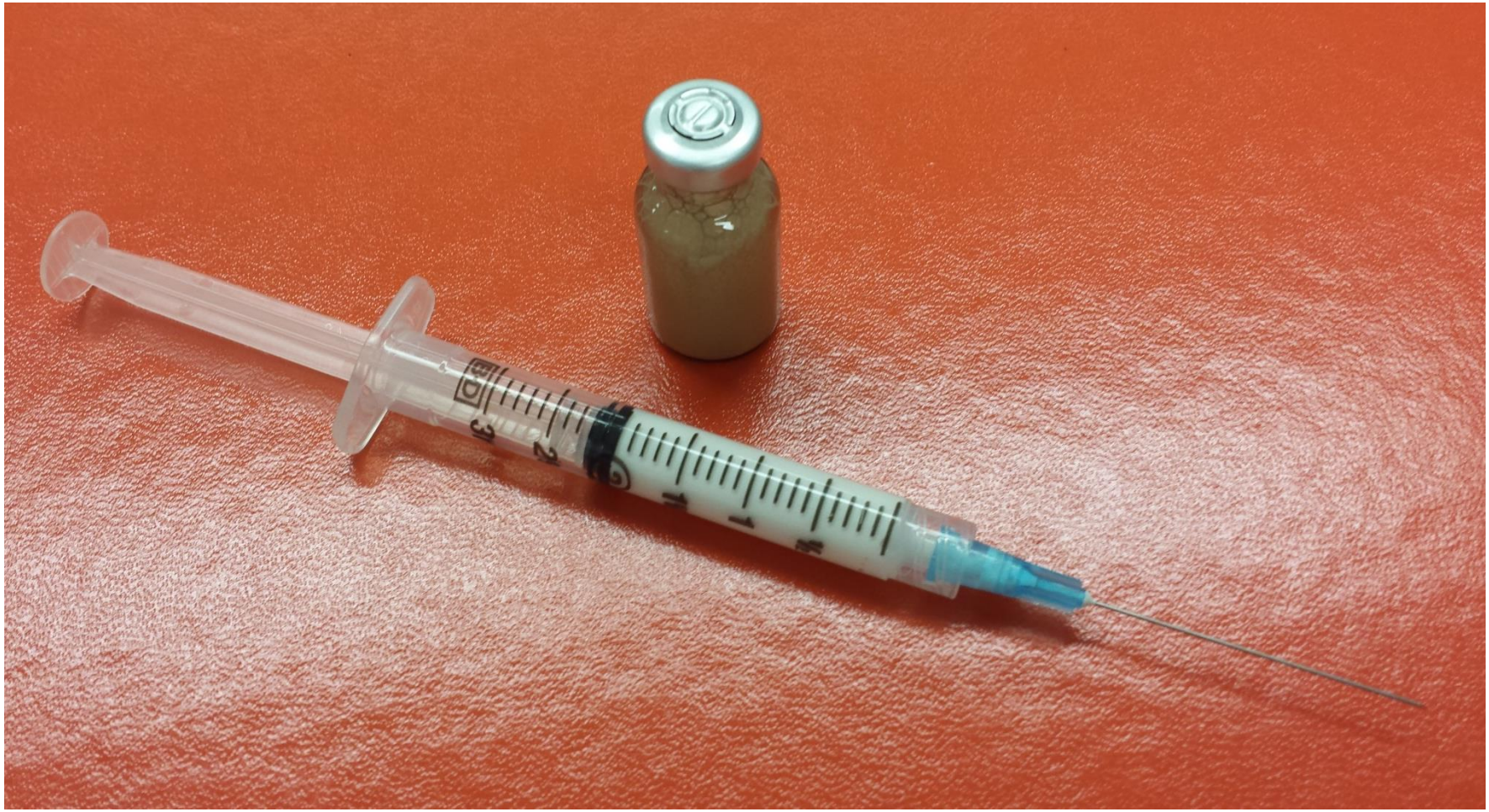
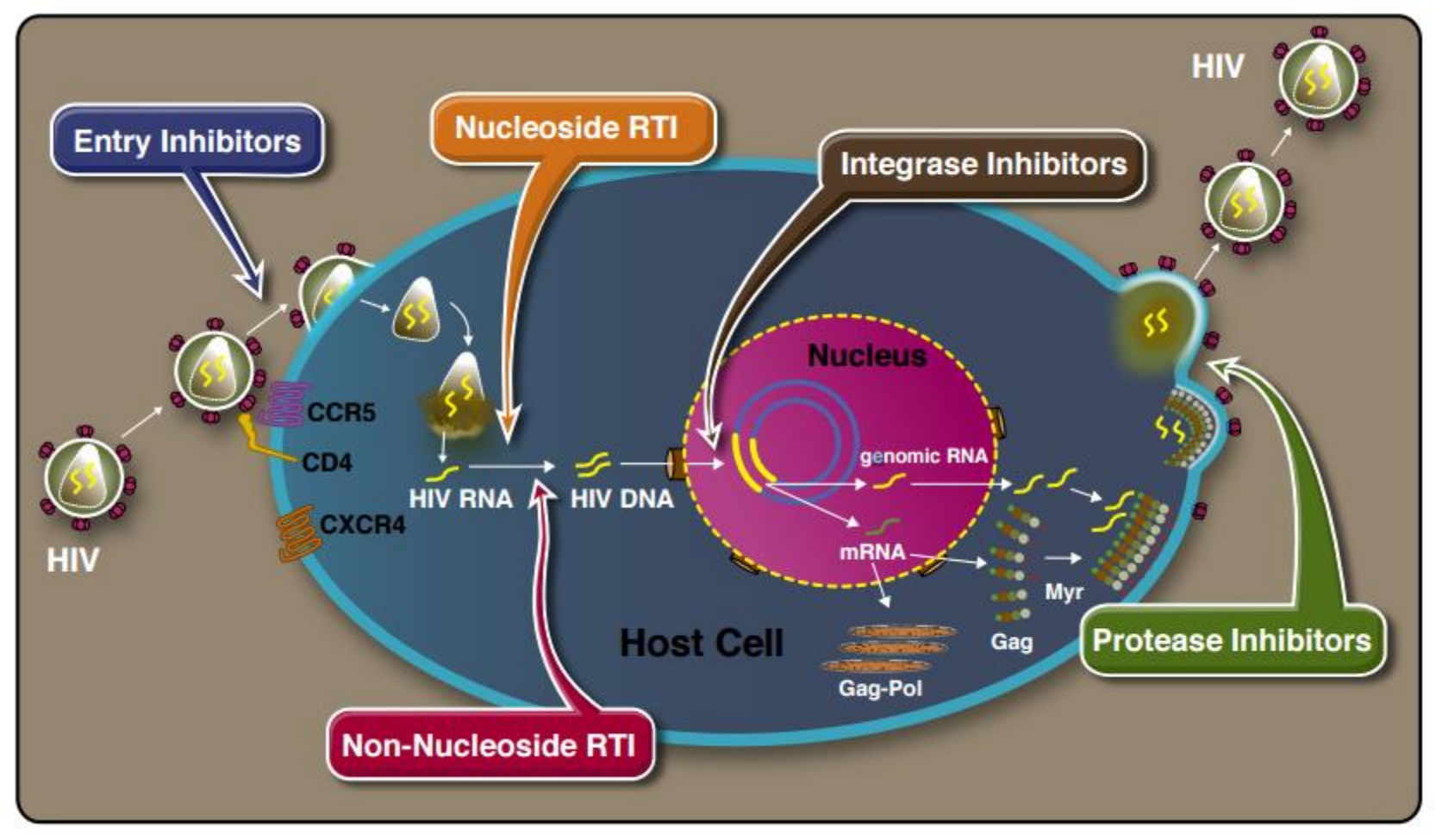
Future options in 2021: Injectable Long-Acting Cabotegravir?



Slide courtesy of Dr. Raphael Landovitz, UCLA

HIV Drug Targets

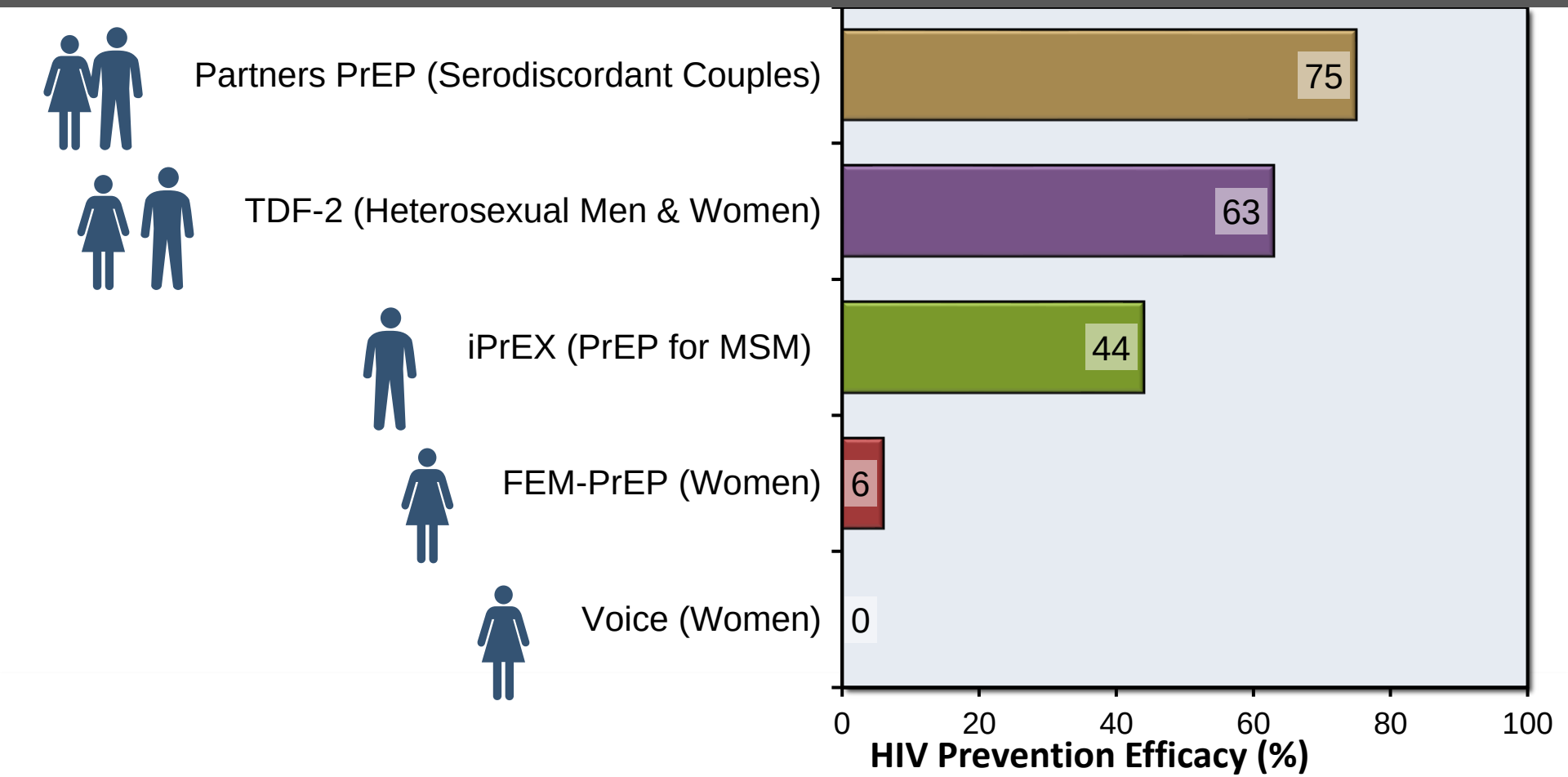
Both Tenofovirs & emtricitabine (FTC) are
nucleoside reverse transcriptase inhibitors (NRTIs)



http://depts.washington.edu/nwaetc/Pill_Chart.pdf

Does PrEP work?

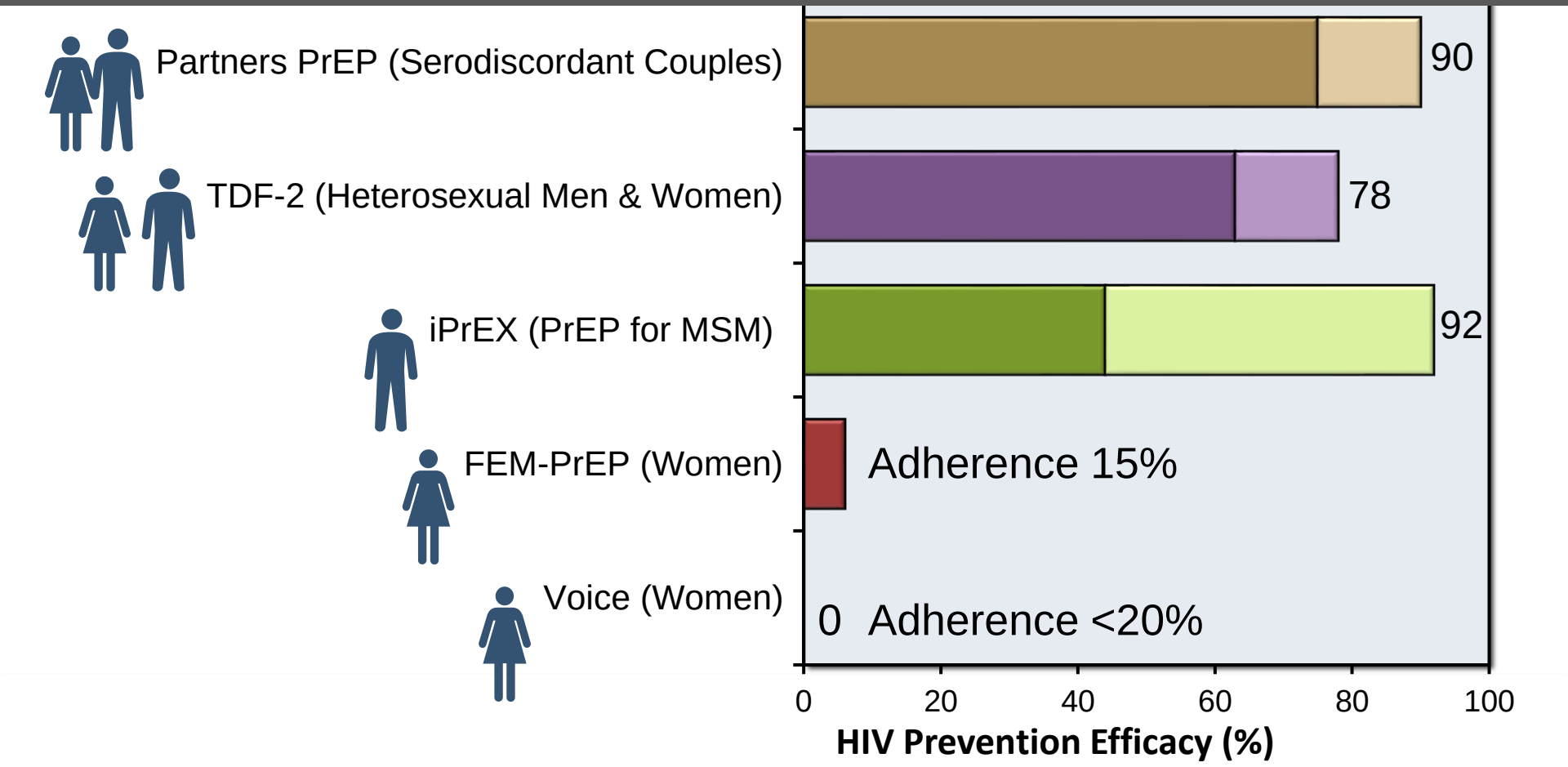
Estimated Protection from PrEP, All Participants



Source: Marrazzo JM et al. JAMA. 2014;312:390-409.

When taken regularly, PrEP works well.

Estimated Protection in All Participants (Dark Bar) vs Adherent Participants (Light Bar)



Source: Marrazzo JM et al. JAMA. 2014;312:390-409.

Adherence & Efficacy in the iPrEX OLE (Open-Label Extension)

- N = **1,603 MSM**; 76% chose to receive PrEP
- Adherence measured by random blood sampling

Estimated Adherence (by TDF in dried blood spot)	HIV Incidence
Not detected	4.7/100 person-years
<2 tabs/week	2.3/100 person-years
2-3 tabs/week	0.6/100 person-years
4-7 tabs/week	**0/100 person-years**

Source: Grant RM et al. Lancet Infect Dis. 2014 Sep;14(9):820-9.

PrEP v. Statins for Primary Disease Prevention

	iPrEx	WOSCOPS
Intervention	PrEP daily for HIV prevention	Pravastatin daily for MI prevention
Frequency of outcome in placebo arm	4% per year	1.6% per year
Relative risk reduction	44%	31%
Number needed to treat for 1 year to prevent outcome	**62 all MSM 36 URAI <15 among highest risk**	**250**

iPrEx: Grant et al N Engl J Med 2010
WOSCOPS: Shepherd et al N Engl J Med 1995c

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PrEP in our community

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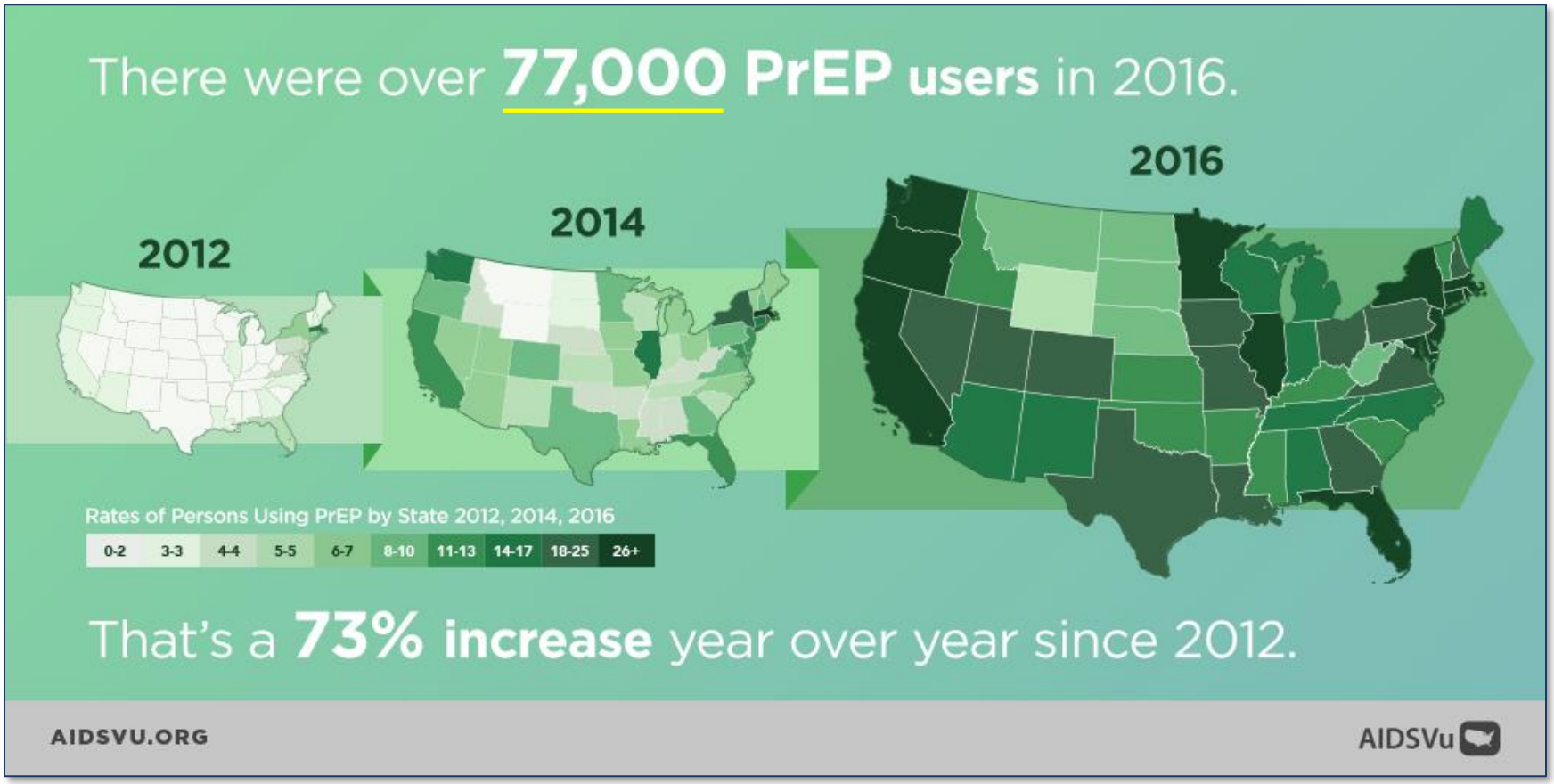
PrEP Uptake has Increased Dramatically…

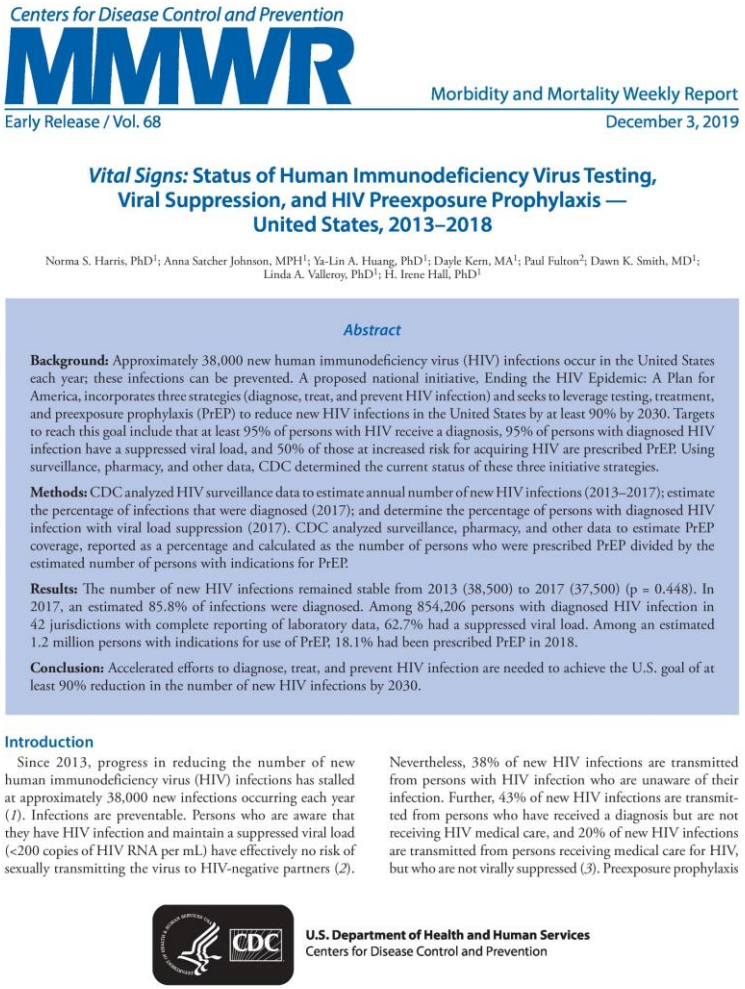


http://map.aidsvu.org/map

Slide courtesy of Dr. Christine Johnston

CDC Modeling

- CDC MMWR released in December 2019
- Estimated 13.6% of Oregonians with a PrEP indication are on PrEP
- National average of 18.1%



Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Early Release / Vol. 68
December 3, 2019

Vital Signs: Status of Human Immunodeficiency Virus Testing, Viral Suppression, and HIV Preexposure Prophylaxis — United States, 2013–2018

Norma S. Harris, PhD[1]; Anna Satcher Johnson, MPH[1]; Ya-Lin A. Huang, PhD[1]; Dayle Kern, MA[1]; Paul Fulton[2]; Dawn K. Smith, MD[1]; Linda A. Valleroy, PhD[1]; H. Irene Hall, PhD[1]

Abstract

Background: Approximately 38,000 new human immunodeficiency virus (HIV) infections occur in the United States each year; these infections can be prevented. A proposed national initiative, Ending the HIV Epidemic: A Plan for America, incorporates three strategies (diagnose, treat, and prevent HIV infection) and seeks to leverage testing, treatment, and preexposure prophylaxis (PrEP) to reduce new HIV infections in the United States by at least 90% by 2030. Targets to reach this goal include that at least 95% of persons with HIV receive a diagnosis, 95% of persons with diagnosed HIV infection have a suppressed viral load, and 50% of those at increased risk for acquiring HIV are prescribed PrEP. Using surveillance, pharmacy, and other data, CDC determined the current status of these three initiative strategies.

Methods: CDC analyzed HIV surveillance data to estimate annual number of new HIV infections (2013–2017); estimate the percentage of infections that were diagnosed (2017); and determine the percentage of persons with diagnosed HIV infection with viral load suppression (2017). CDC analyzed surveillance, pharmacy, and other data to estimate PrEP coverage, reported as a percentage and calculated as the number of persons who were prescribed PrEP divided by the estimated number of persons with indications for PrEP.

Results: The number of new HIV infections remained stable from 2013 (38,500) to 2017 (37,500) (p = 0.448). In 2017, an estimated 85.8% of infections were diagnosed. Among 854,206 persons with diagnosed HIV infection in 42 jurisdictions with complete reporting of laboratory data, 62.7% had a suppressed viral load. Among an estimated 1.2 million persons with indications for use of PrEP, 18.1% had been prescribed PrEP in 2018.

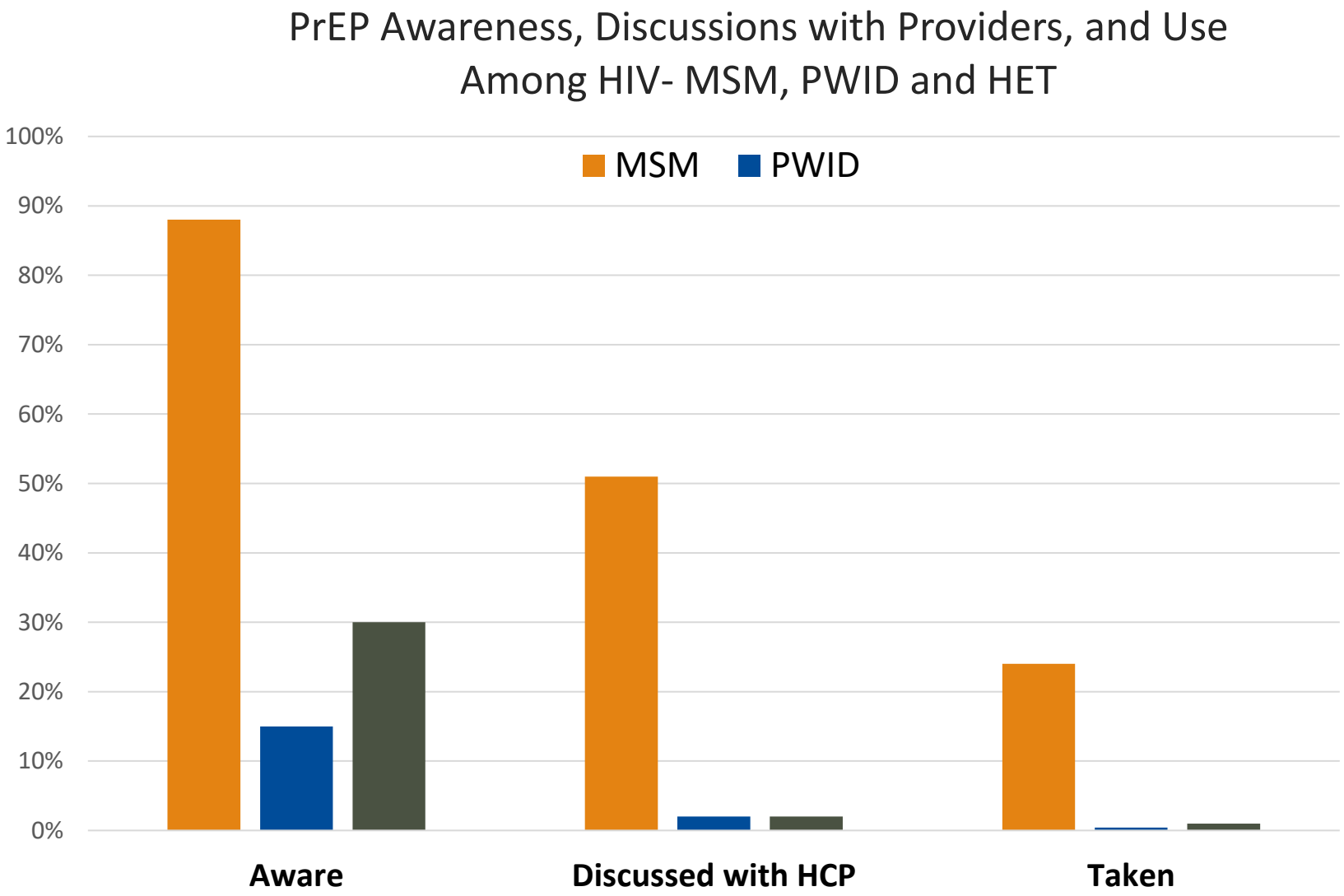
Conclusion: Accelerated efforts to diagnose, treat, and prevent HIV infection are needed to achieve the U.S. goal of at least 90% reduction in the number of new HIV infections by 2030.

Introduction

Since 2013, progress in reducing the number of new human immunodeficiency virus (HIV) infections has stalled at approximately 38,000 new infections occurring each year (*1*). Infections are preventable. Persons who are aware that they have HIV infection and maintain a suppressed viral load (<200 copies of HIV RNA per mL) have effectively no risk of sexually transmitting the virus to HIV-negative partners (*2*). Nevertheless, 38% of new HIV infections are transmitted from persons with HIV infection who are unaware of their infection. Further, 43% of new HIV infections are transmitted from persons who have received a diagnosis but are not receiving HIV medical care, and 20% of new HIV infections are transmitted from persons receiving medical care for HIV, but who are not virally suppressed (*3*). Preexposure prophylaxis

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Slide Courtesy: Josh Ferrer, OHA, PrEP Connect 2020



Slide courtesy: National HIV Behavioral Surveillance Project/ Chime In

Good News and Bad News…

- *Good news*: HIV diagnoses overall have decreased and increasing use of PrEP is likely one of the reasons[1]
- *Bad news*: Many who need PrEP are still not receiving it, and there are still drastic disparities based on race/ethnicity, age, gender, geographic region, etc.[2,3]
- *In particular*: Patients who use IV drugs are particularly underrepresented in using PrEP

1. Sullivan et al, IAS 2018, Amsterdam. 2. Beer et al, CROI 2018, Boston. 3. Siegler et al, CROI 2018, Boston.

Provider Awareness/Concerns

- May 2016 survey of >13,000 WA state providers (FM/ER/OBs)
- Of 735 respondents, ***35%*** *had never heard of it!)*
- Younger providers and those with certain training backgrounds were more likely to be aware
- Among providers aware, most frequent reported concerns were: **adherence** (46.0%), **costs** (42.9%)

Wood BR et al. Sex Transm Dis. 2018 Jul;45(7):452-458.

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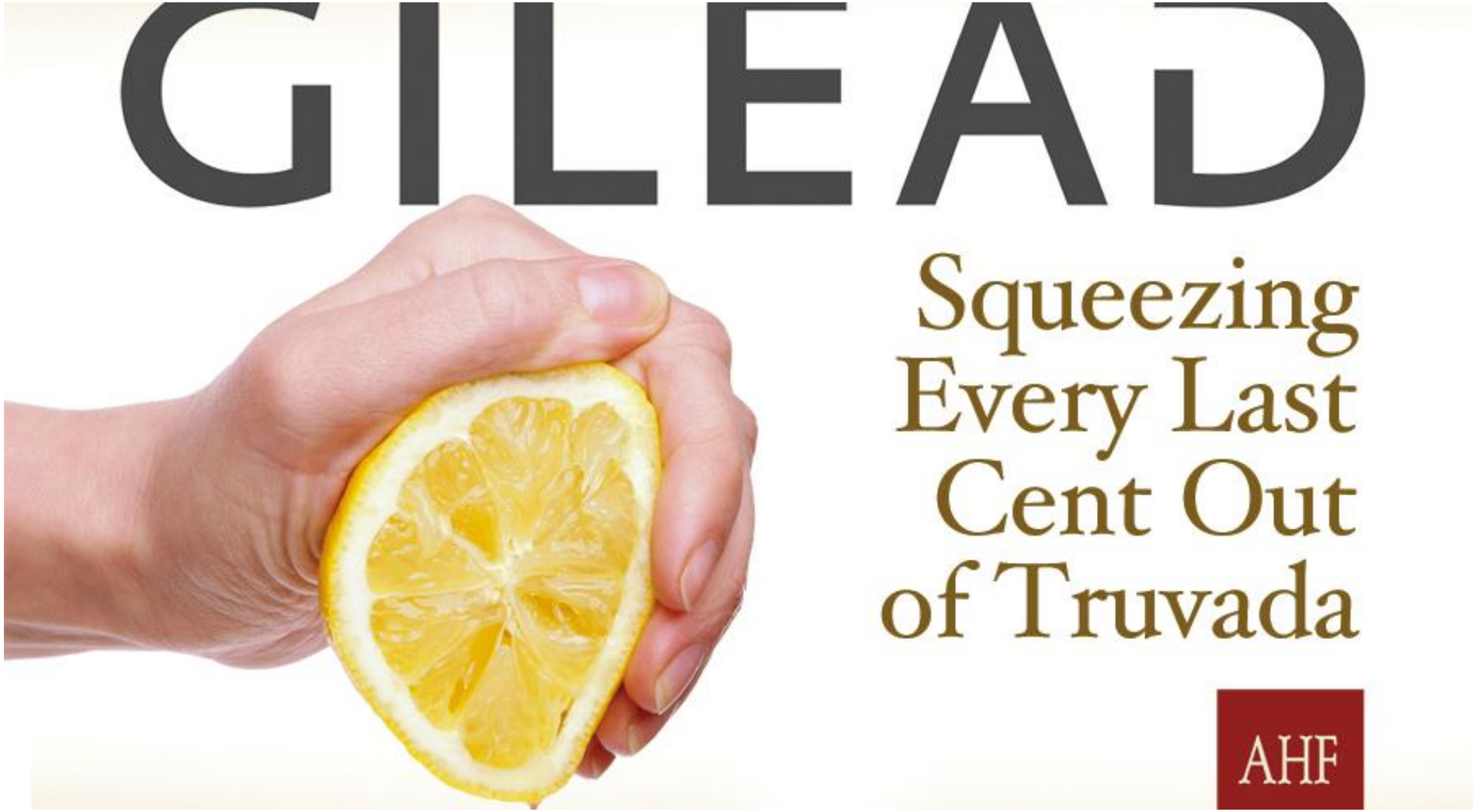
Generic Truvada now available, but…



HIVAlliance

Brief overview of our organization:

- Mission statement: Supporting individuals with HIV/AIDS & preventing new infections
- What we do: case management, behavioral health, PrEP navigation, syringe exchange services, Naloxone distribution, education, HIV/HCV testing, PrEP/STI clinic

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How we do PrEP Navigation:

- PrEP referrals
  - Physicians, health departments, in-house, testing, outreach
- Readiness Assessment
- Insurance
  - Sign-up, contact current insurance, co-payment/medication assistance programs
- Find a physician or clinic
- We do PrEP navigation for every rural county aka outside Portland metro area

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Engaging People Who Inject:

- Going to Syringe Exchanges
  - Build rapport, do not push them, empathy and understanding
- Keeping them engaged
  - Check up more frequently, help set reminders, still go to exchanges
- Being unhoused does not disqualify them
  - Yes it makes it harder but not impossible

HIVAlliance

Questions?

Contact:

hivalliance.org

Keith Mathew
kmathew@allianceor.org
C: (541) 393-4768

Donny Beer
dbeer@allianceor.org
C: (541) 729-3272

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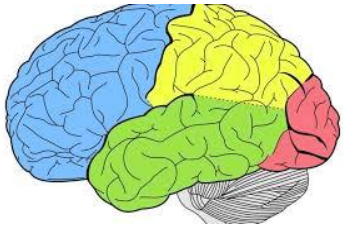
Getting comfortable with PrEP prescribing



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Who Should Consider PrEP?

- Individuals with “substantial risk” for HIV, such as:
  - In a sexual relationship with someone who has HIV*
  - MSM not in a mutually monogamous relationship & not using condoms 100%
  - Recent bacterial STI/STD
  - **People who injects drugs (PWID)**
  - Recurrent need for post-exposure prophylaxis (PEP)*
  - Serodifferent couple who wants to conceive
  - ***People who have receptive anal sex benefit the most***

Source: CDC PrEP Guidelines.

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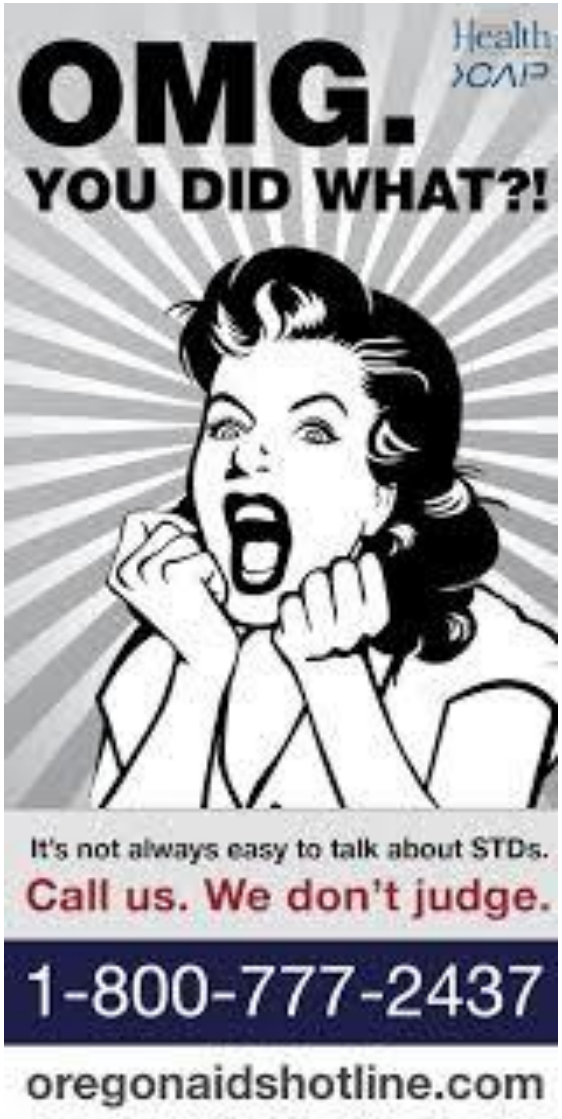
Taking a Sexual Health History



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Taking a Sexual Health History

1. Establish a good rapport
2. Make it routine for all patients
3. Make no assumptions
4. Put it in context (e.g., as part of social history)
5. Assure confidentiality

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Sexual History Taking: CDC 5 Ps

- **Partners** (Recent partners, partner's partners, gender of partners)
- **Practices** (vaginal, oral, anal receptive/insertive)
- **Protection from STIs** (what do you do to protect against STIs, condom usage)
- **Past history of STIs** (Have you or any partners been recently diagnosed with an STI?)
- **Prevention of Pregnancy** (Are you seeking to become pregnant or parent a child?)

Taking a Sexual Health History

1	2	3	4	5
Establish a good rapport	Make it routine for all patients	Make no assumptions	Put it in context (e.g., as part of social history)	Assure confidentiality

Follow with Open Ended Questions:

- **Sexual health is a part of your overall health.**
- **How would you describe your intimate relationships?**
- **Are you currently sexually active?**
- **Who are your partners?**

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Case # 1: Juan

Juan is a 27 year old monolingual Latino here for a "physical". He appears a bit anxious.

From the intake form, you see he is healthy,
(just a history of gonorrhea), uses meth at times, and is sexually active with men and women.

Gently, take a sexual history. Is PrEP right for him?

PrEP Guidelines:
Baseline Evaluation and Prescribing

A. Determine Eligibility

- Substantial ongoing risk for HIV
- Able to take a pill every day and return every 3 months
- Screen for HIV and consider need for HIV RNA (viral load)
- Check hepatitis B antibody panel and renal function

B. Prescribe PrEP

- Truvada or Descovey 1 tab PO daily
- No more than 90 days at a time
- Emphasize importance of adherence

Source: CDC PrEP Guidelines. http://www.cdc.gov/hiv/pdf/prepguidelines2017.pdf

PrEP Guidelines: Counseling and Monitoring

C. Continue Counseling

- Continue risk-reduction counseling and other preventive measures (condoms, clean needles, etc)
- Remember PrEP is not a stand-alone strategy

D. Lab Monitoring

- Every 3 month HIV test
- Every 3-6 month STI screening
- Renal function at 3 months, then every 3-6 months

Source: CDC PrEP Guidelines. http://www.cdc.gov/hiv/pdf/prepguidelines2017.pdf

Summary of Recommended Laboratory Evaluation
Baseline and Routine Monitoring for Patients taking PrEP

Recommended Laboratory Testing and Frequency for Patients Taking PrEP				
Laboratory test	**Baseline**	**Every 3 months**	**At least every 6 months**	**Notes**
HIV screening assay	✔	✔		Consider need for HIV RNA PCR
HBV antibody panel and HCV antibody	✔			Offer HBV vaccination if not immune
Serum creatinine	✔		✔	Avoid PrEP if CrCl <60 mL/min
General STI screen	✔		✔	Include oral/rectal screen for MSM if risk
Pregnancy test for women*	✔	✔		
*The safety of PrEP in pregnancy has not been established				

Source: US Public Health Service. Clinical practice guidelines for PrEP. May 2017.

At Follow-up:

Every visit:
Assess adherence
Risk reduction counseling

- HIV testing
  - Every 3 mo; document negative result
- Evaluate and support adherence
- Continued risk-reduction counseling
  - Assess for STI symptoms at each visit
  - Screen asymptomatic patients every 6 mos
- Renal safety
  - Test creatinine after 3 mos on PrEP

CDC. MMWR Morb Mortal Wkly Rep. 2011;60:65-68. Tenofovir/emtricitabine [package insert]. 2012.

Discontinue PrEP:

- If pt is no longer at high risk
  - Does pt still meet criteria for PrEP?
- If pt is HIV +
    - Do resistance testing
    - Establish linkage to HIV care
- If person has chronic hepatitis B infection
  - Check liver function tests (case reports of hepatitis flares after discontinuing PrEP)

http://www.cdc.gov/hiv/pdf/guidelines/PrEPguidelines2014.pdf

How Soon Does PrEP Reach Effective Levels?

- **CDC Guidelines**: Time to maximum intracellular concentrations with daily oral TDF/FTC dosing:
  - Rectal tissue: **7 days**; cervicovaginal tissues: **20 days**
  - If discontinuing, continue for 28 days after last sex
- **IAS-USA Guidelines:**
  - **1-week** lead-in time recommended with daily dosing for rectal, penile, and vaginal exposures
  - At discontinuation, continue for **1 week** after last sex

Sources: CDC PrEP Guidelines, IAS-USA Guidelines.

Case #2: Andrew

- Andrew is a 38 year old male.
- Chart review shows he is Hep C + & HIV negative.
- He uses heroin daily & frequently shares needles.

- **Is Andrew a good candidate for PrEP?**

The Bangkok Tenofovir Study (BTS)

- Tenofovir as PrEP for preventing HIV infection among adult men and women IVDU in Thailand.
- Population: 2,413 HIV-uninfected men and women who reported injecting drugs during the previous year.
- Meds were DOT.
- Both arms offered harm reduction, methadone, etc.

Choopanya et al. 2013. Lancet 381: 2083-2090.

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The Bangkok Tenofovir Study (BTS)

- Efficacy was 56% in the per-protocol analysis
- Efficacy was 74% when limited to participants with detectable tenofovir concentrations.

Choopanya et al. 2013. Lancet 381: 2083-2090.

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Exposure Risk (per episode, with infected source)

Percutaneous (blood)[1]	0.3%
Mucocutaneous (blood)[2]	0.09%
Receptive anal intercourse[3]	1 - 2%
Insertive anal intercourse[4]	0.06%
Receptive vaginal intercourse[5]	0.1 – 0.2%
Insertive vaginal intercourse[6]	0.03 – 0.14%
Receptive oral (male)[7]	0.06%
Female-female orogenital[8]	4 case reports
IDU needle sharing[9]	0.67%
Vertical (no prophylaxis)[10]	24%

Case #3: Sam

- Sam is a 35 yo man who has uses meth when he has sex with men (MSM). He's heard of the Truvada lawsuit. He wonders:

- **How much will PrEP decrease his risk of HIV?**
- **Is Truvada even safe?**
- **Should he take Descovy instead?**

Calculating risk with and without PrEP

1) What % of the time do you use condoms when having anal sex?

2) What % of the time are you the top partner when having anal sex?

3) How many times a month do you have anal sex?

4) Are you monogamous with a HIV+ partner?

Use this website to calculate risk:

https://ictrweb.johnshopkins.edu/ictr/utility/prep.cfm

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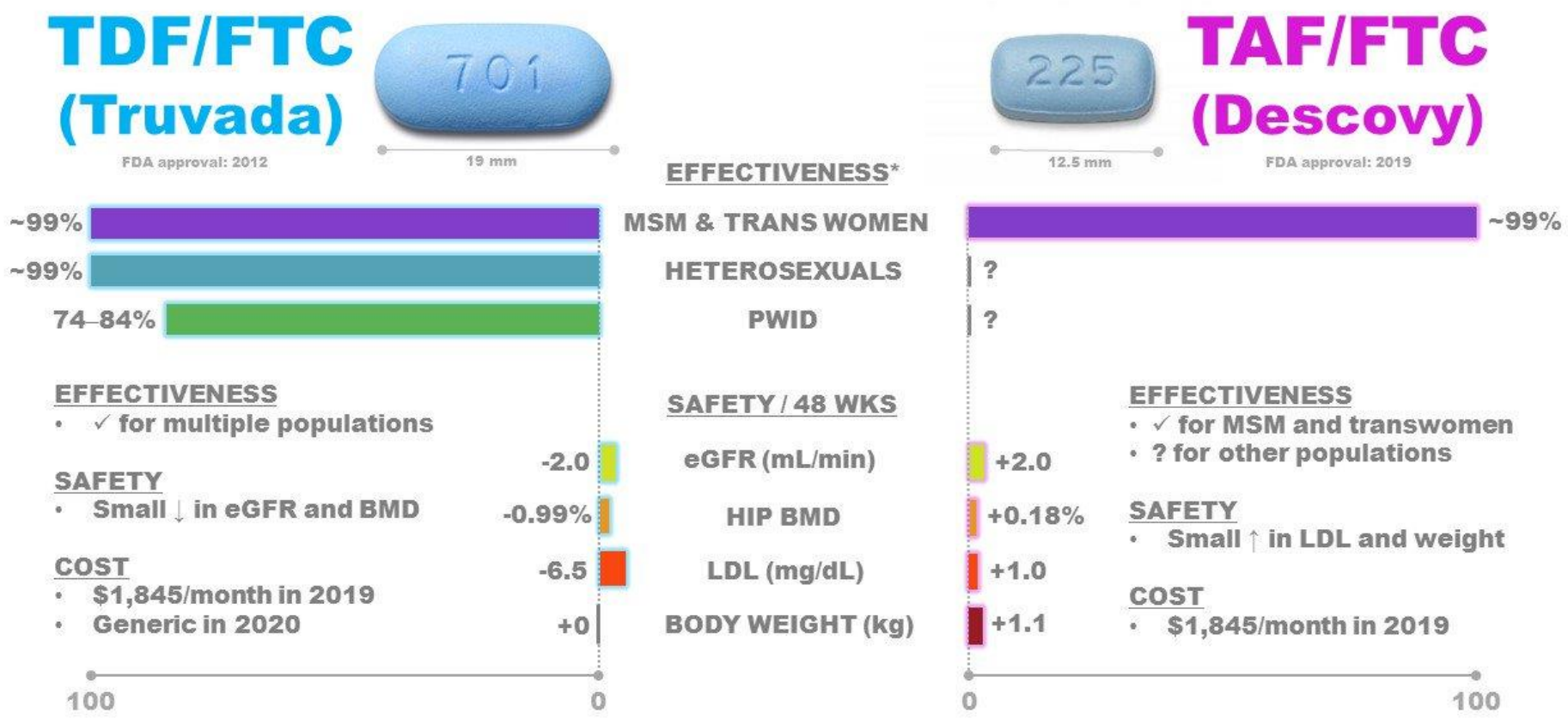
Side Effects of Truvada

- **Nausea and headache**: 10% of patients, which usually resolve within 1 month
- **Renal dysfunction**: Small risk, typically reversible if PrEP is discontinued
- **Bone mineral density decrease**: PrEP associated with 1% decrease; however, no increased risk of fractures
- **Very few significant drug-drug interactions**

TDF/FTC (Truvada) vs TAF/FTC (Decovy)

Which medication should I prescribe for daily PrEP?

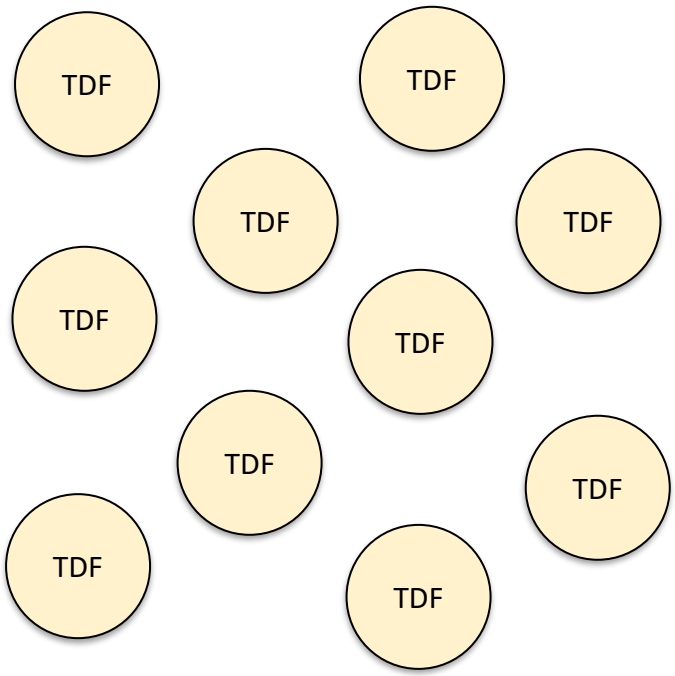


*No data available for trans men. Sources: fda.gov/media/129607/download; fda.gov/media/129609/download; cdc.gov/hiv/risk/estimates/preventionstrategies.html Created by: @JuliaLMarcus

What to prescribe?

The decision of which agent to use for PrEP then transitions from what is best for the individual patient to what is best for the community….

PrEP for the community



For the cost of putting one person on TAF/FTC for PrEP, we would be able to put many more people on generic TDF/FTC for PrEP.

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Case #4: Alejandra

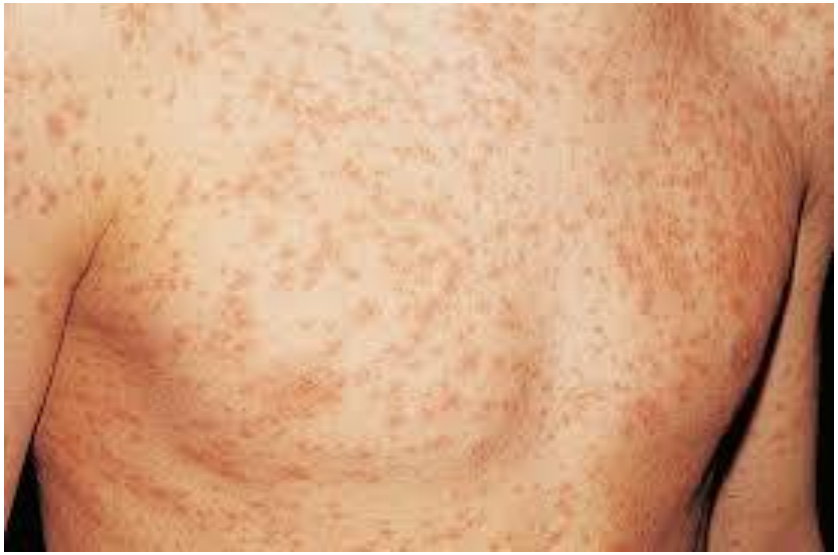
- Alejandra (previously Alejandro) is a 34 year transgender female.
- Sexually active with multiple partners & MSM.
- Scheduled visit for a “cold”. Sore-throat.
- Exam : T37.5, faint rash with mild adenopathy.
- At the start of the visit, she asks about PrEP

Are you worried about the “cold”?

Flu-like s(x)'s? Think acute HIV Infection

Symptoms begin 2-6 weeks & last 2-4 weeks.

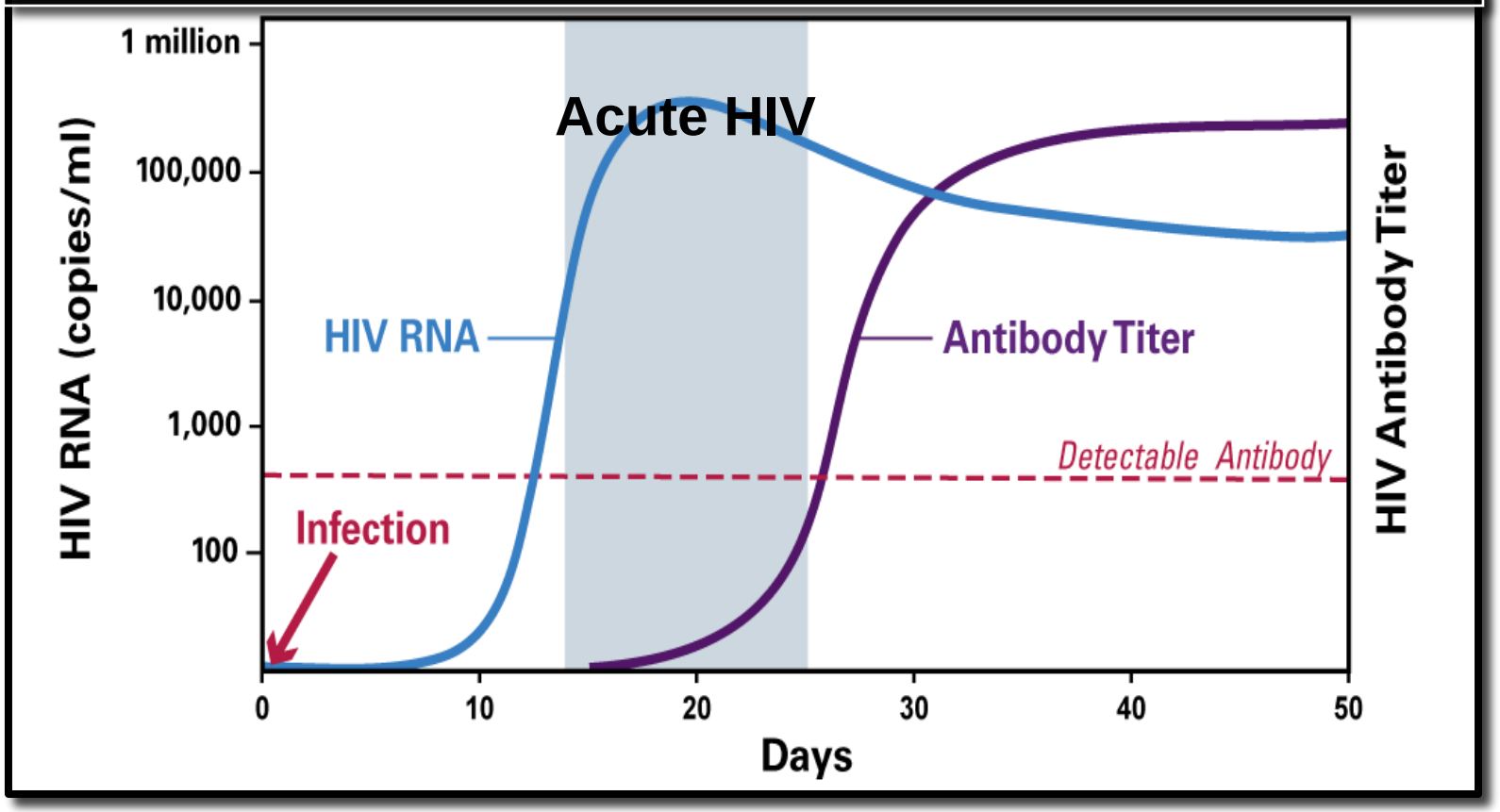
- Fever
- Fatigue
- Myalgia
- Skin rash
- Headache
- Pharyngitis
- Cervical Lymphadenopathy
- Arthralgia
- Night sweats
- Diarrhea



Daar ES, Pilcher CD, Hecht FM. Curr Opin HIV AIDS. 2008;3(1):10-15. www.depts.washington.edu

Laboratory Studies with Acute HIV

- Positive HIV-1 RNA Assay and Negative HIV Antibody Test



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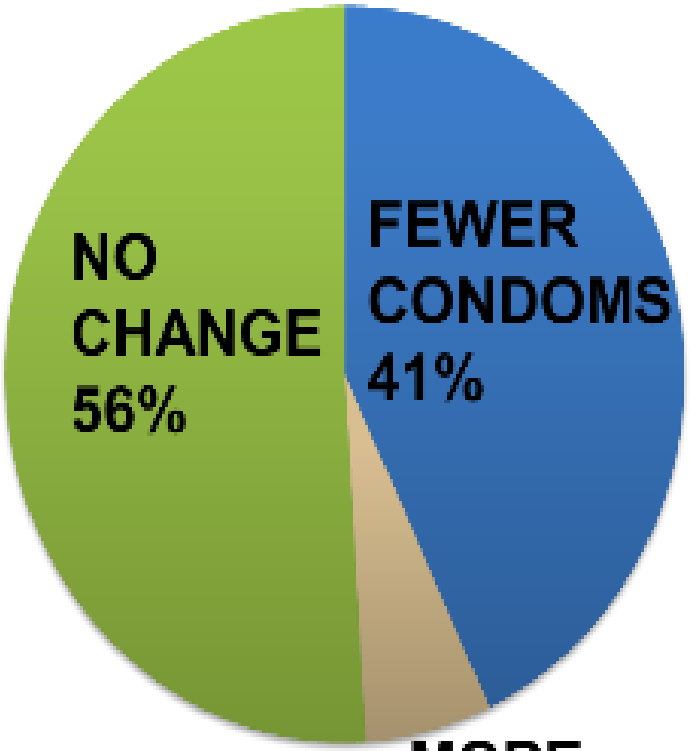
PrEP Concerns

- You are excited to have prescribed PrEP for the first time!
- Just as you are telling your colleague about it, your crotchety old colleague comes up to you and says:
- **“Won’t this just mean more VD?”**

CHANGES IN REPORTED CONDOM USE AFTER STARTING PrEP (n=143)



Volk et al. CID 2015;
Image courtesy J Volk

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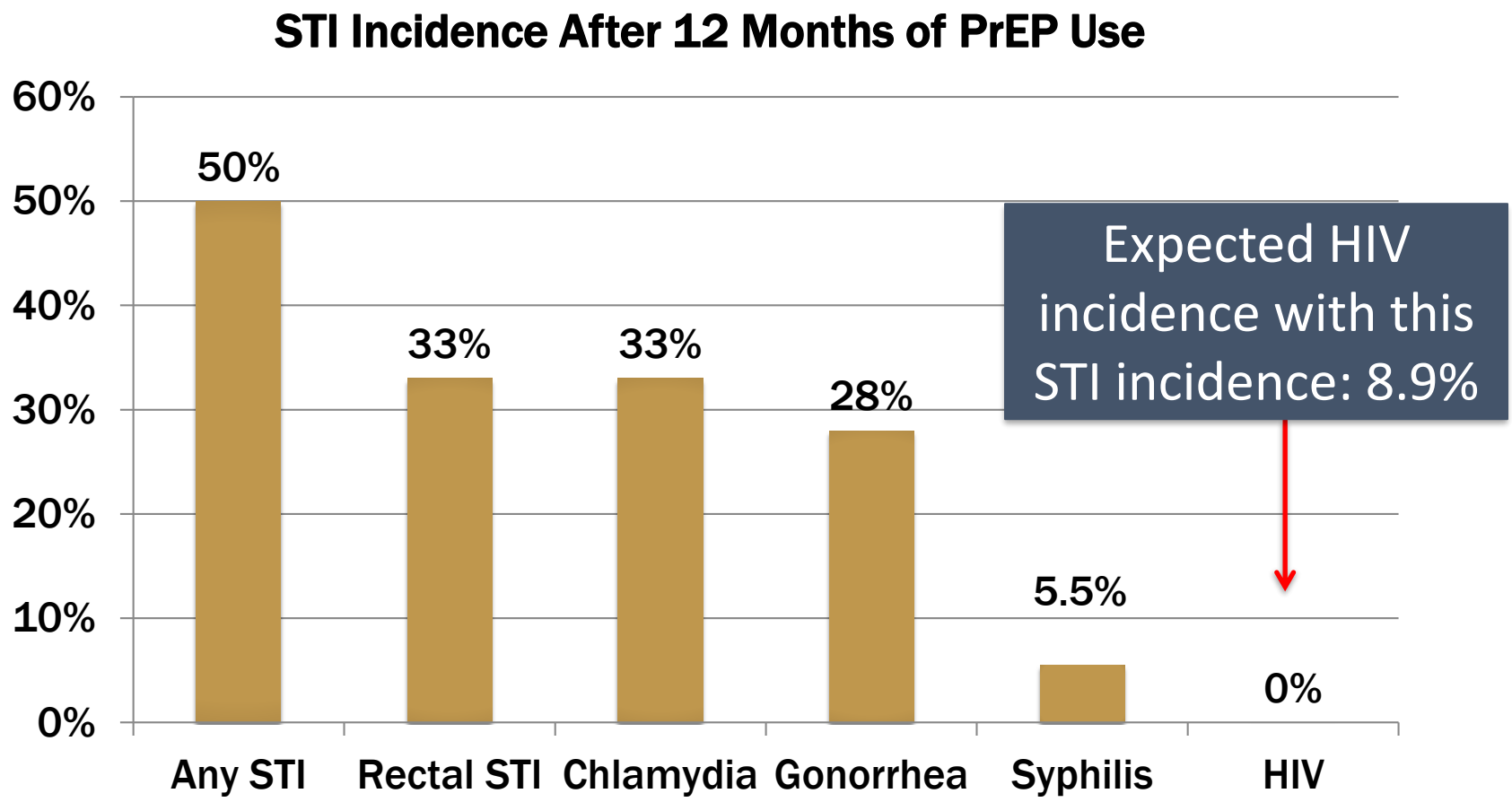
Kaiser-Permanente SF study: N=600



Volk et al. CID 2015 Slide courtesy J. Volk

Is there a risk of drug resistance to Truvada if a person acquires HIV while on PrEP?

- HIV resistance is quite rare (1 in 5000 treated)
- For every 25 HIV infections prevented, 1 case of HIV resistance was reported.
- 1 study: >50% patients had symptoms of acute HIV at enrollment.

"Fomenting fear of drug resistance is also misguided if it distracts us from fear of HIV itself, by far the greater threat to human health."

Lehman, D. A. et al. 2015. JID. 211: 1211-1218.
Grant, R. M. & Liegler, 2015. JID. 211: 1202-1204.

Is PrEP Worth the Cost?

In 2020, PrEP was about $24,000 annually

Preventing one new HIV infection will save the healthcare system an estimated **$379,668** (in 2010 dollars) in lifetime HIV care costs.

With PrEP navigators, cost is almost never an issue.

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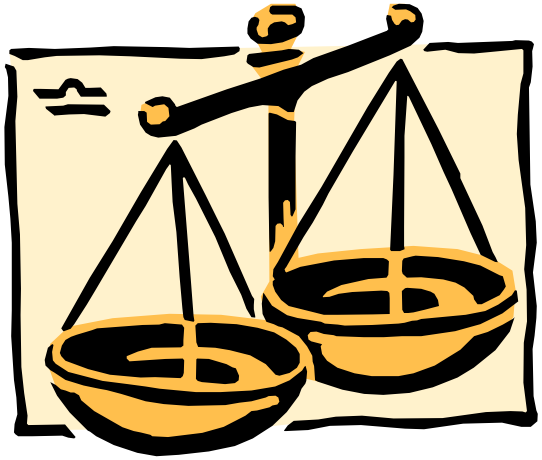
Case #5: Sally

- Sally is a 19 cis-gender female who is HIV negative.
- Her boyfriend is HIV positive, but not on HIV meds.
- Yesterday, during sex, the condom broke.
- She asks you about starting PrEP.
- **Would you start PrEP?**

Post-Exposure Prophylaxis: Core Principles

- Balance risks vs benefits
- Timing: the sooner, the better
- Make a decision
  - PEP can always be discontinued, but you can't get the 1st 24 hours back!



National Clinical Consultation Center (NCCC)

HIV/AIDS Management

Expert clinical advice on providing optimal care to your HIV-positive patients, from initiating antiretroviral regimens to managing HIV/AIDS and comorbidities.

HIV/AIDS Guidelines »

Antiretroviral Drug Tables »

Get HIV/AIDS Management Advice

Perinatal HIV/AIDS

Immediate advice on HIV management in pregnant women and their infants, including referral to care.

Perinatal ReproID HIV Listserv »

Get Perinatal HIV Advice

Hepatitis C Management

Expert clinical advice on HCV testing, staging, monitoring, and treatment including hepatitis C mono- and co-infection.

Get Hepatitis C Management Advice

Substance Use Management

PEP: Post-Exposure Prophylaxis

PrEP: Pre-Exposure Prophylaxis

Nccc.ucsf.edu

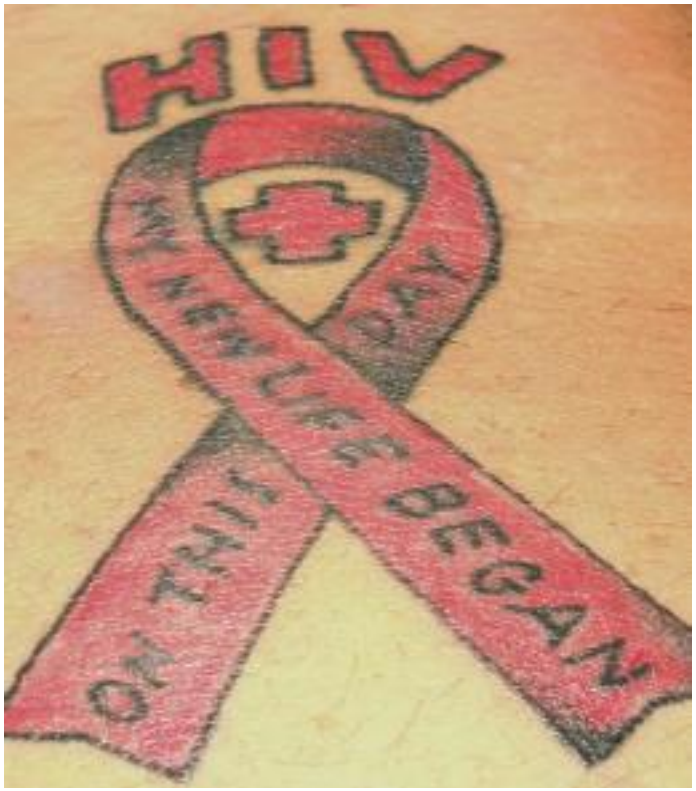
Case #6: Diana

- Diana is a 24-year-old woman who is HIV -
- Jim, her partner, is HIV+ on HAART and has an undetectable viral load.
- **Is Diana a good candidate for PrEP?**

UNDETECTABLE = UNTRANSMITTABLE

Prevention Access Campaign

Goals for today!



- Screen and treat common STIs (2020 guidelines)
- Recognize common STIs and HIV
- Describe which PrEP to offer & who benefits most
- Increase comfort in discussing & prescribing PrEP

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References

1. Celum, C., Morrow, R. A., Donnell, D., Hong, T., Hendrix, C. W., Thomas, K. K., ... & Baeten, J. M. (2014). Daily Oral Tenofovir and Emtricitabine–Tenofovir Preexposure Prophylaxis Reduces Herpes Simplex Virus Type 2 Acquisition Among Heterosexual HIV-1–Uninfected Men and Women: A Subgroup Analysis of a Randomized Trial. *Annals of internal medicine*, *161*(1), 11-19.
2. Gatanaga, H., Hayashida, T., Tanuma, J., & Oka, S. (2013). Prophylactic effect of antiretroviral therapy on hepatitis B virus infection. *Clinical infectious diseases*, *56*(12), 1812-1819.
3. Heuft, M. M., Houba, S. M., van den Berk, G. E., van de Haere, T. S., van Dam, A. P., Dijksman, L. M., ... & Brinkman, K. (2014). Protective effect of hepatitis B virus-active antiretroviral therapy against primary hepatitis B virus infection. *Aids*, *28*(7), 999-1005.
4. Liegler, T., Abdel-Mohsen, M., Bentley, L. G., Atchison, R., Schmidt, T., Javier, J., ... & Anderson, P. L. (2014). HIV-1 drug resistance in the iPrEx preexposure prophylaxis trial. *Journal of Infectious Diseases*, *210*(8), 1217-1227.
5. Grant, R. M., Lama, J. R., Anderson, P. L., McMahan, V., Liu, A. Y., Vargas, L., ... & Montoya-Herrera, O. (2010). Preexposure chemoprophylaxis for HIV prevention in men who have sex with men. *N Engl J Med*, *2010*(363), 2587-2599.
6. Baeten, J. M., Donnell, D., Ndase, P., Mugo, N. R., Campbell, J. D., Wangisi, J., ... & Ronald, A. (2012). Antiretroviral prophylaxis for HIV prevention in heterosexual men and women. *New England Journal of Medicine*, *367*(5), 399-410.
7. Lehman, D. A., Baeten, J. M., McCoy, C. O., Weis, J. F., Peterson, D., Mbara, G., ... & Frenkel, L. (2015). Risk of drug resistance among persons acquiring HIV within a randomized clinical trial of single-or dual-agent preexposure prophylaxis. *Journal of Infectious Diseases*, jiu677.
8. Thigpen, M. C., Kebaabetswe, P. M., Paxton, L. A., Smith, D. K., Rose, C. E., Segolodi, T. M., ... & Mutanhaurwa, R. (2012). Antiretroviral preexposure prophylaxis for heterosexual HIV transmission in Botswana. *New England Journal of Medicine*, *367*(5), 423-434.
9. Van Damme, L., Corneli, A., Ahmed, K., Agot, K., Lombaard, J., Kapiga, S., ... & Temu, L. (2012). Preexposure prophylaxis for HIV infection among African women. *New England Journal of Medicine*, *367*(5), 411-422.
10. Grant, R. M., Liegler, T., Defechereux, P., Kashuba, A. D., Taylor, D., Abdel-Mohsen, M., ... & Bentley, G. (2015). Drug resistance and plasma viral RNA level after ineffective use of oral pre-exposure prophylaxis in women. *Aids*, *29*(3), 331-337.
11. Marrazzo, J. M., Ramjee, G., Richardson, B. A., Gomez, K., Mgodi, N., Nair, G., ... & Hendrix, C. W. (2015). Tenofovir-based preexposure prophylaxis for HIV infection among African women. *New England Journal of Medicine*, *372*(6), 509-518.

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Acknowledgement

The Mountain West AIDS Education and Training (MWAETC) program is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $2,803,298 with 0% financed with non-governmental sources.

The content in this presentation are those of the author(s) and do not necessarily represent the official views of, or an endorsement, by HRSA, HHS, of the U.S. Government.

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Let’s end HIV in Oregon.

We can make it happen.

The time is now.

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Resources

Regional Contacts:

- *Oregon AIDS Education and Training Center (AETC)*
  - Program Manager: Dayna Morrison, dayna@oraetc.org or 971.200.5266
  - Can offer providers further education on HIV and PrEP

- *Cascade AIDS Project (Multnomah, Clackamas, Washington, Yamhill, and Columbia Counties)*
  - PrEP Coordinators: prep@cascadeaids.org or 503.223.5907
- *HIV Alliance (All other Oregon Counties)*
  - PrEP Coordinators: prevention@allianceor.org or hivalliance.org/prevent/prevention-meds/

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Resources

- *USPHS/CDC/HHS PrEP Guidelines:* http://aidsinfo.nih.gov/guidelines
- *PrEP warline:* 800-933-3413 or http://nccc.ucsf.edu/clinician-consultation
- Oregon Syphaware: www.syphaware.org

PrEP Medication Assistance Programs:

- *Gilead Financial Support:* https://start.truvada.com/paying-for-truvada
- *Patient Access Network*: www.panapply.org
- *Patient Advocate Foundation Co-Pay Relief:* https://www.copays.org
- Ready Set PrEP: www.getyourprep.com

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