



# Preventative Screening for Sexually Transmitted Infections at Health Centers

Webinar | 14-January-2026

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# Our Roots

## Fenway Health

- Independent 501(c)(3) FQHC
- Founded 1971
- Mission: To enhance the wellbeing of the LGBTQIA+ community as well as people in our neighborhoods and beyond through access to the highest quality health care, education, research, and advocacy
- Integrated primary care model, including HIV and transgender health services

## The Fenway Institute

- Research, Education, Policy



# The National LGBTQIA+ Health Education Center

- Training and Technical Assistance
- Grand Rounds
- Online Learning
  - CE and HEI Credit
- Environmental Influences On Child Health Outcomes (ECHO) Programs
- Publications and Resources



Learning Module



Publication



Toolkit



Video



Webinar

[www.lgbtqiahealtheducation.org](http://www.lgbtqiahealtheducation.org)



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- Alternatively, e-mail us at [education@fenwayhealth.org](mailto:education@fenwayhealth.org) for less urgent questions.



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<p><b>Other Health Professionals</b></p>	<p>Confirm equivalency of credits with relevant licensing body.</p>



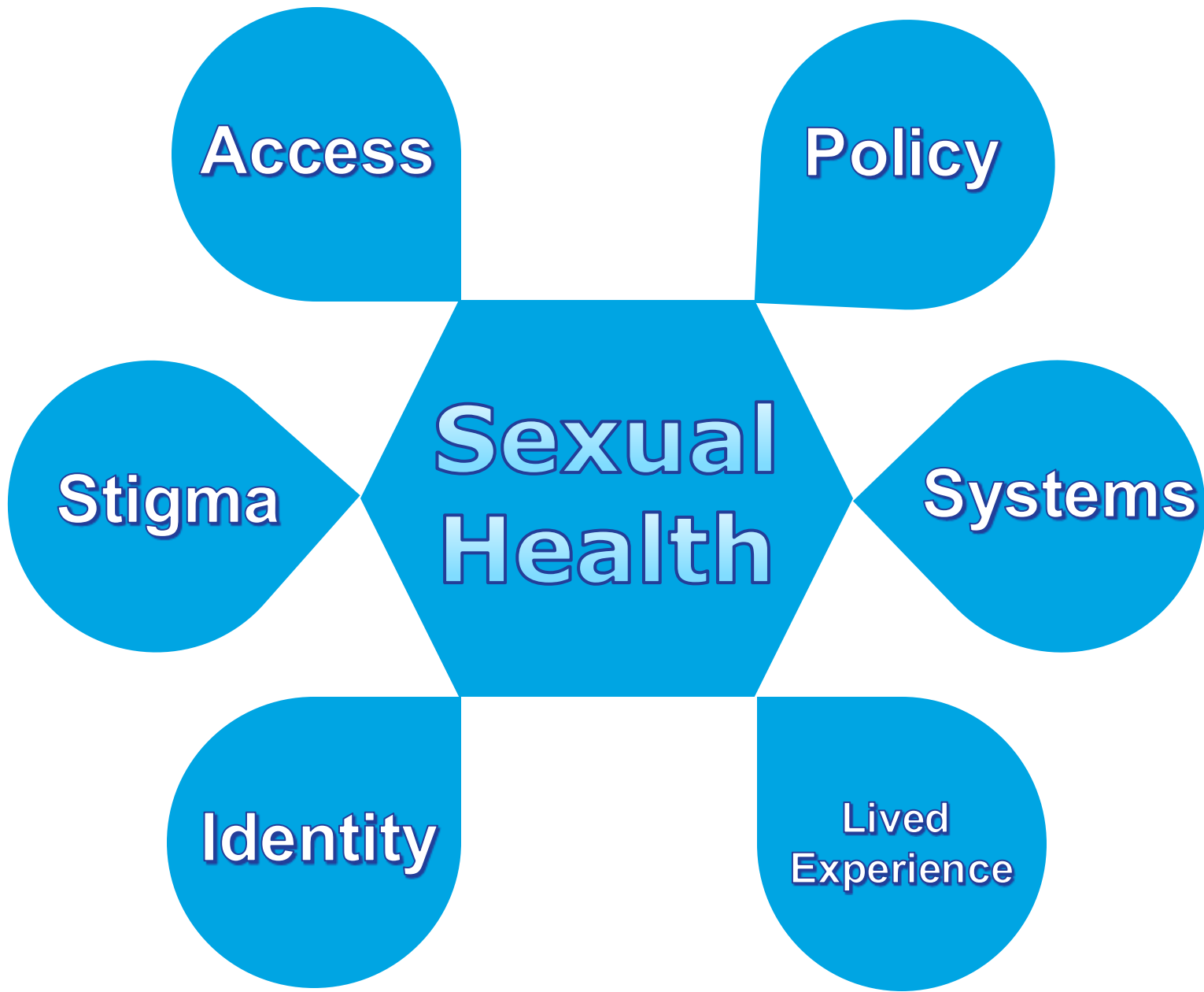
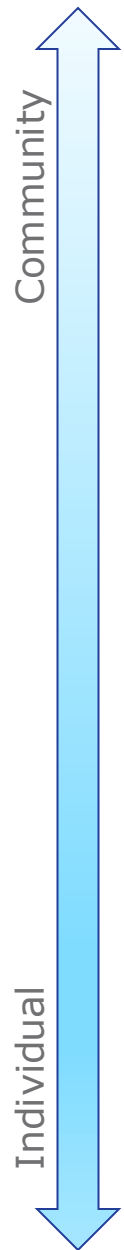
# Objectives

By the end of this webinar, participants will be able to:

- 1. Identify** risk factors for sexually transmitted infections (STIs) among health center populations.
- 2. Recognize** patient-, provider-, and system-level barriers to routine STI screening in health center settings.
- 3. Describe** current evidence-based guidelines and best practices for STI screening.
- 4. Apply** practical strategies to improve preventive STI screening uptake and integration into routine clinical care within health centers.

# Sexual Health

“...a state of **physical, emotional, mental and social well-being** in relation to sexuality; it is not merely the absence of disease, dysfunction or [weakness]. Sexual health requires a **positive and respectful approach** to sexuality and sexual relationships, as well as the possibility of having **pleasurable and safe sexual experiences**, free of coercion, ... and **violence**. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled.”  
(WHO, 2006)



# Sexual Health & Wellness: Language

- You will make lots of mistakes.
- Be willing to learn.
- Be curious.

# Sexual Health & Wellness: History Taking

## ➤ Introductions

- Patient information
  - Sex, age, medical history

## ➤ Surgical History

- Organ Inventory
- Experience / Desired outcome

# Sexual Health & Wellness: History Taking

## ➤ Sexual Activity

- Number of sexual partners
- Relationship Structures
- Sex of partner(s)
- Sexual activity
- Safety / Consent / Survival Sex [transactional sex]
- Activity-informed history taking

# Sexual Health & Wellness: History Taking

## ➤ Sexual Activity

- Number of sexual partners
- Relationship Structures
  - (Mutually Monogamous / Ethically Non-monogamous (ENM) / Open / Poly)
- Sex of partner(s)
- Sexual activity
- Safety / Consent / Survival Sex [transactional sex]
- Activity-informed history taking

*If you are unable to receive the answers with compassion, avoid asking the questions on this encounter.*

# Sexual Health & Wellness: History Taking

## ➤ Substance Use History

➤ Alcohol use

➤ Substance use

- Stimulants (cocaine, crystal methamphetamine...)
- Poppers
- THC
- Psychedelics
- Vapes
- Tobacco
- Opiates

# Sexual Health & Wellness: History Taking



fda • Follow



fda A single mistake can prove fatal. We continue to receive reports of people dying or being severely injured after consuming poppers that resemble, and often mistaken for, popular energy shots. Drinking or inhaling poppers seriously jeopardizes your health.

# Common Sexually Transmitted Infections (STIs)

- Viral STIs
- Bacterial STIs
- Emerging practices

# Common STIs

## Bacterial

Chlamydia & Lymphogranuloma Venerium (LGV)

Gonorrhea

*Mycoplasma genitalium*

Non-gonococcal urethritis

Syphilis

## Viral

Cytomegalovirus (CMV)

Human Papilloma Virus (HPV)

Hepatitis A/B/C Virus

Herpes Simplex Virus (HSV1/HSV2)

Human immunodeficiency virus (HIV)

Mononucleosis (EBV)

## Parasitic

Intestinal parasites & *Entamoeba histolytica*

Scabies /Lice

Trichomoniasis

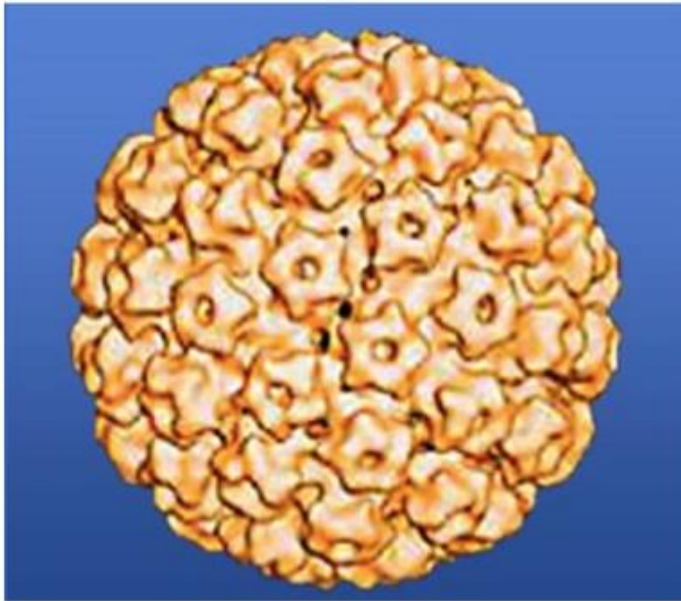
# Viral STIs

- Cytomegalovirus (CMV)
- Human Papilloma Virus (HPV)
- Hepatitis A/B/C Virus
- Herpes Simplex Virus (HSV1/HSV2)
- Human immunodeficiency virus (HIV)
- Mononucleosis (EBV)
- MPox Virus [previously known as Monkeypox]

# Viral STIs: HPV

## HUMAN PAPILLOMA VIRUS (HPV)

- Non-enveloped double stranded DNA virus
- Papilloma Virus Family



>120 types identified

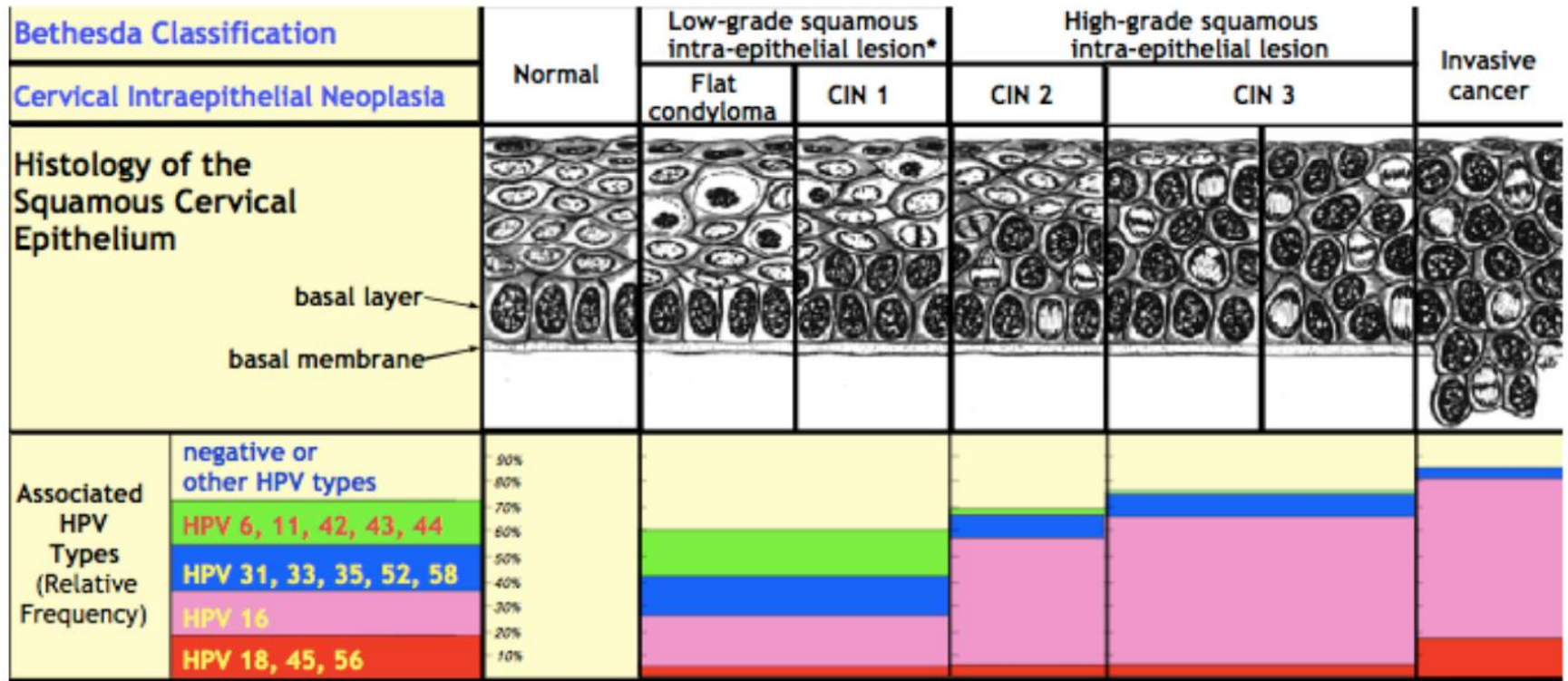
40-50 ano-genital

- 15-20 oncogenic types including 16, 18, 31, 33, 35, 39, 45, 51, 52, 58
  - HPV 16 (54%) and HPV 18 (13%) account for the majority of worldwide cervical cancers
  - High risk HPV types incorporate virus into host genome
- Non-oncogenic types include 6, 11, 40, 42, 43, 44, 54
  - HPV 6 and 11 are most often associated with external anogenital warts
  - Low risk strains remain separate from host DNA and replicate separately

Source: Dr. Ami Multani, 2024, HPV and HRA (Fenway Health)

# Viral STIs: HPV

## FROM CONDYLOMA TO CANCER



Source: Dr. Ami Multani, 2024, HPV and HRA (Fenway Health)

## Viral STIs: HPV

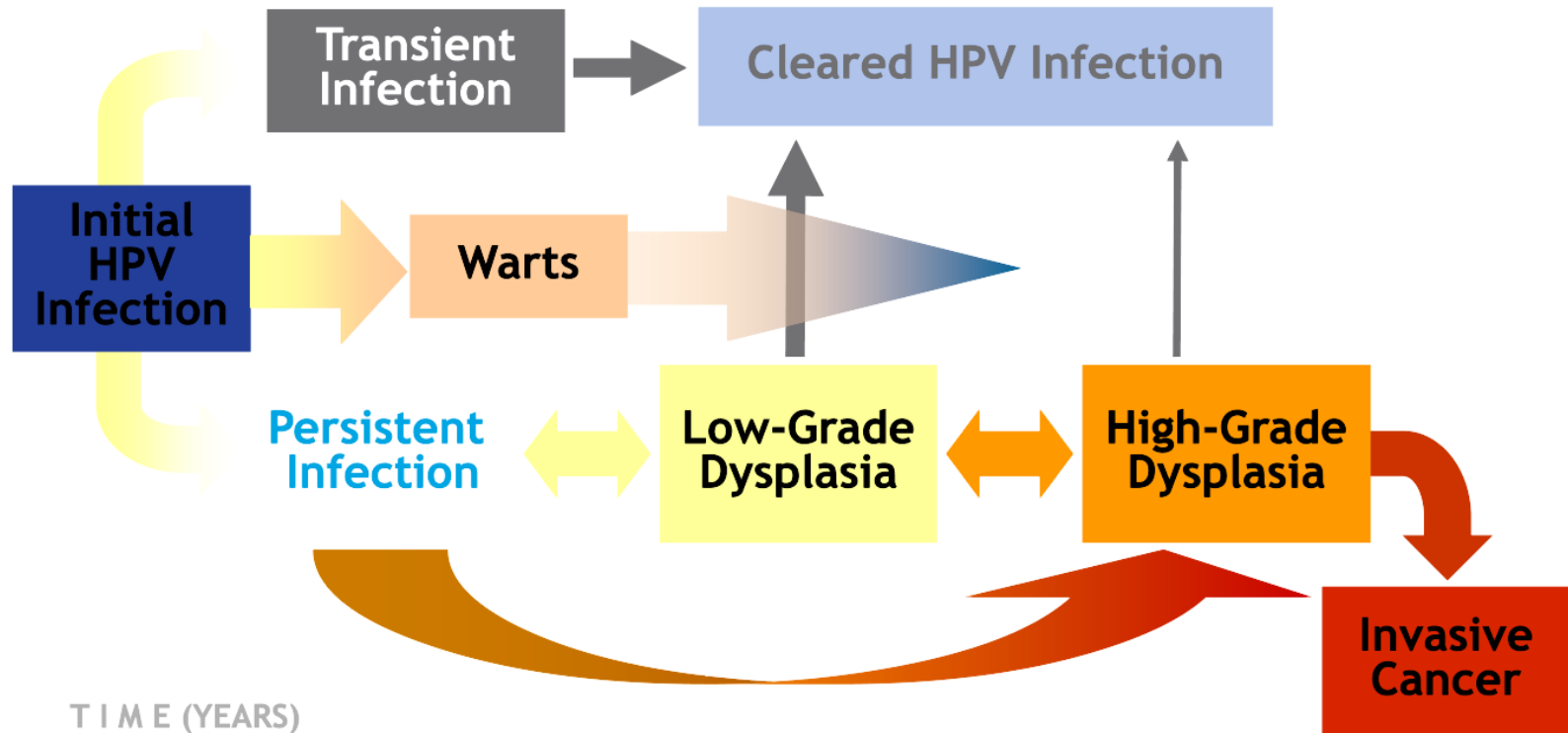
# HPV CLEARANCE AND PERSISTENCE

- >90% of HPV infections are transient
  - 70% of new HPV infections clear within 1 year, and 91% clear within 2 years
  - Median duration of infection = 8 months
- Persistence of high-risk HPV is crucial for development of high-grade dysplasia and cancer
  - Age at acquisition ( $\geq 30$  years)
  - Immunosuppression
  - Smoking

Source: Dr. Ami Multani, 2024, HPV and HRA (Fenway Health)

# Viral STIs: HPV

## NATURAL HISTORY OF HPV INFECTION



TIME (YEARS)

0-2

2-5

4-12

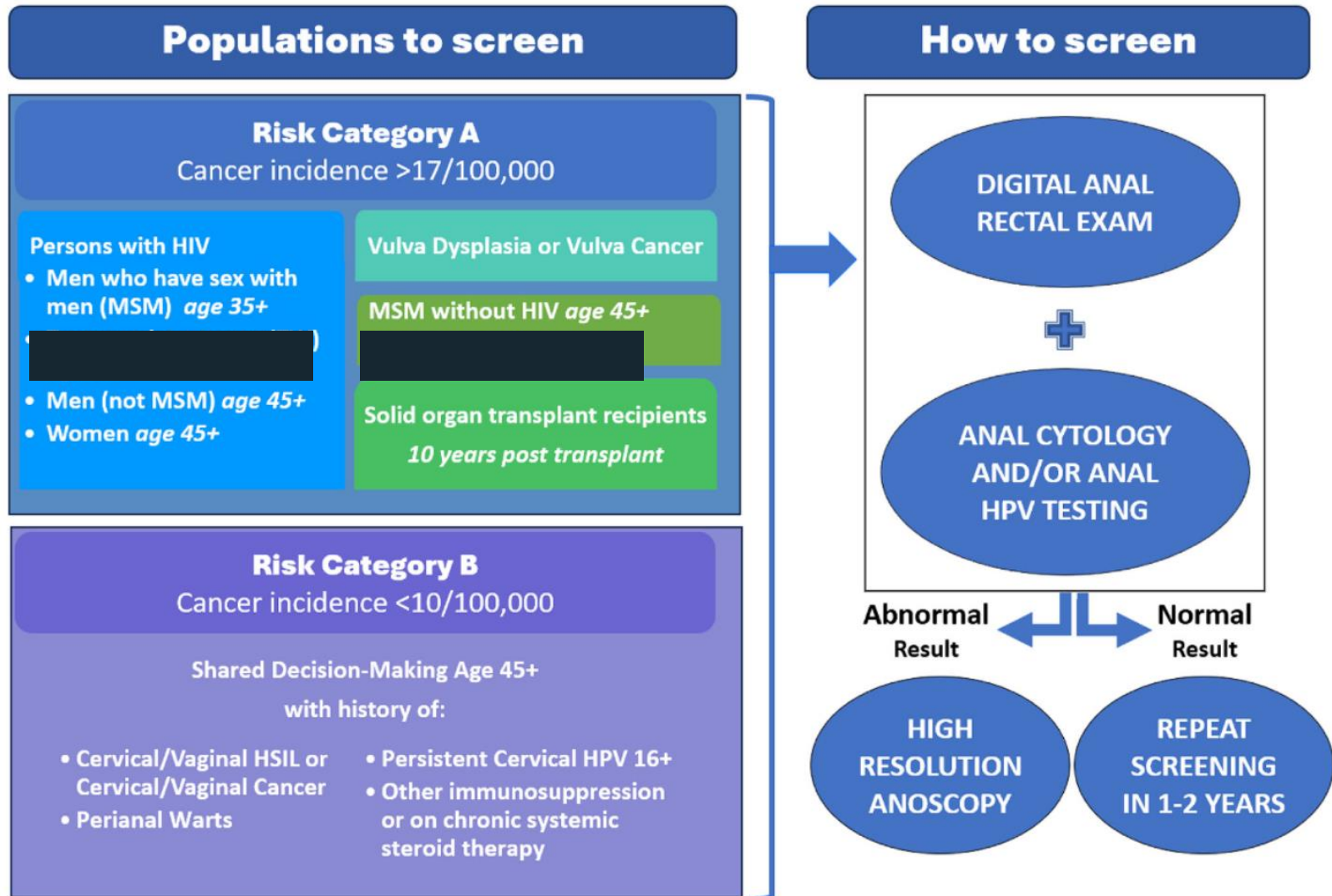
9-20

HIV INFECTION COMPRESSES THE NATURAL HISTORY OF HPV INFECTION

Source: Dr. Ami Multani, 2024, HPV and HRA (Fenway Health)

# Viral STIs: HPV

Stier EA, Clarke MA, Deshmukh AA, Wentzensen N, et al. International Anal Neoplasia Society's consensus guidelines for anal cancer screening. *Int J Cancer*. 2024 May 15;154(10):1694-1702. doi: 10.1002/ijc.34850. Epub 2024 Jan 31. PMID: 38297406.



# Viral STIs: HPV

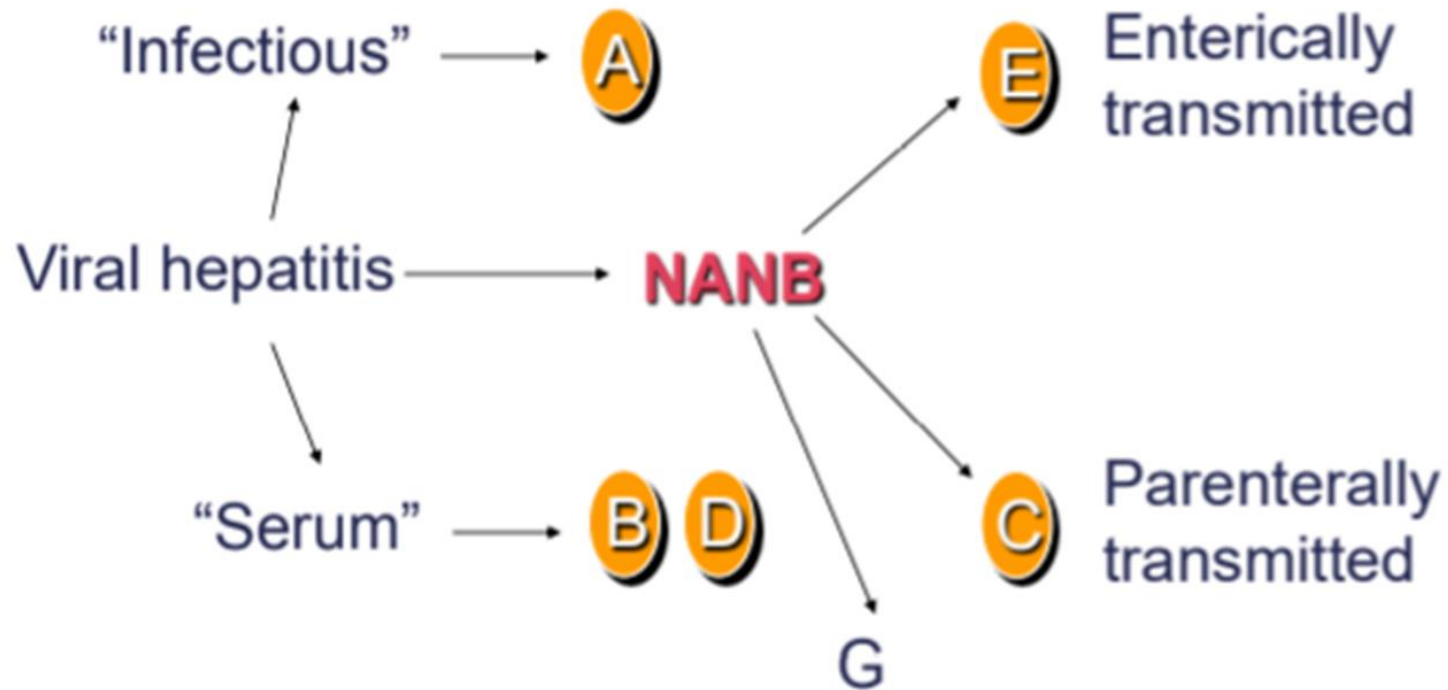
Routine vaccination	Age 11–12 years; can be started at age 9 years
Catch-up Vaccination*	Age 13–26 years, if not adequately vaccinated
Shared clinical decision-making*	Some adults age 27–45 years, if not adequately vaccinated

\*[MMWR. 2019;68\(32\):698-702](#)

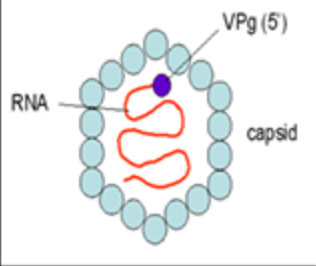
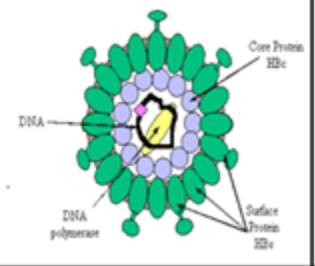
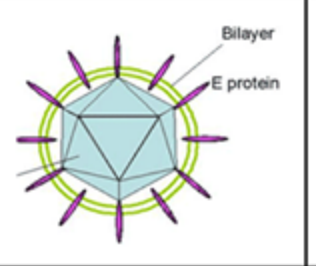
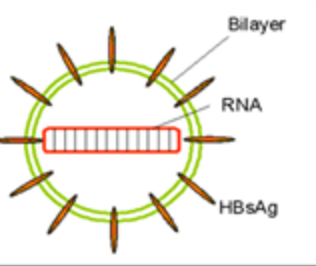

**About 85% of people will get an HPV infection in their lifetime.** Vaccinating all 11–12-year-olds can protect them long before they are ever exposed.

**CDC recommends two doses of HPV vaccine for all adolescents at age 11 or 12 years.**

# Viral STIs: Viral Hepatitis



# Viral STIs: Viral Hepatitis

					
<b>Name of Virus</b>	Hepatitis A Virus (HAV)	Hepatitis B Virus (HBV)	Hepatitis C Virus (HCV)	Hepatitis D Virus (HDV)	Hepatitis E Virus (HEV)
<b>Classification</b>	Picornavirus	Hepadnavirus	Flavivirus	Deltavirus	Hepevirus
<b>Viral genome</b>	ssRNA	dsDNA	ssRNA	-ssRNA (-ve)	ssRNA
<b>Transmission</b>	Enteric	Parental	Parental	Parental	Enteric
<b>Incubation period</b>	15-45 days	45-160 days	15-150 days	30-60 days	15-60 days
<b>Chronic Hepatitis</b>	No.	Yes. 10% chance	Yes. >50% chance	Yes. <5% of coinfectious >80% of superinfectious	No.

# Viral STIs: Hepatitis A Virus (HAV)

- Hepatitis A (formerly known as “infectious” hepatitis or epidemic jaundice) is an acute infectious disease caused by Hepatitis A virus (HAV).
- Only multiplies inside liver cells (humans are the only reservoir)
- It is resistant to heat and chemicals.
- It is inactivated by UV light and autoclaving.
  
- **Reservoir of infection:** Humans
- **Infective material:** Feces
- **Transmission:** Fecal-Oral route, usually through direct person-to-person contact or consumption of contaminated food or water. The risk of transmitting HAV is greatest from 2 weeks before to 1 week after the onset of jaundice.
  
- **At risk groups:**
  - Immunocompromised
  - MSM or persons that practice oral-anal sexual contact (rimming)
  - Intravenous Drug Use (IVDU) (rare)

# Viral STIs: Hepatitis A Virus (HAV)

## Prevention

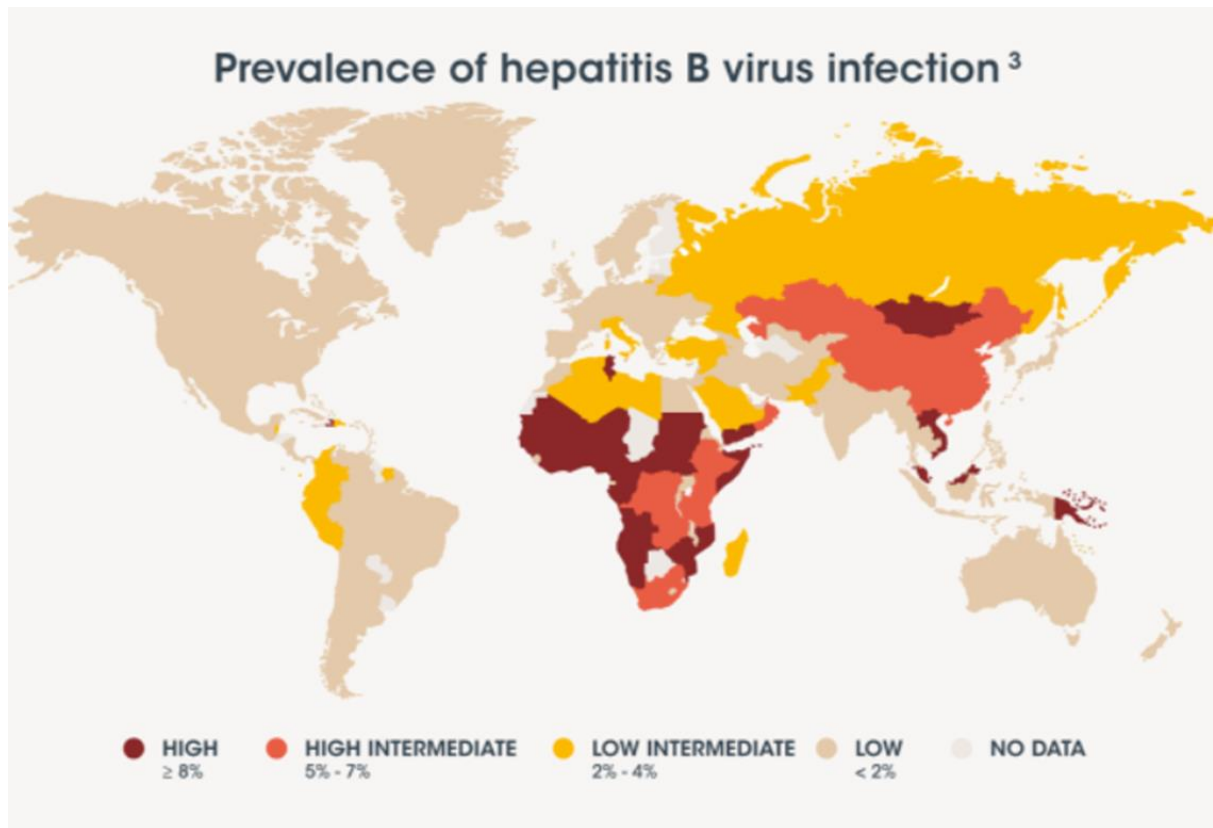
- Hygienic measures and sanitation
- Immunization

## Treatment:

- Symptomatic, non-specific

# Viral STIs: Hepatitis B Virus (HBV)

- Hepatitis B (formerly known as —serum hepatitis) is an acute systemic infection with major pathology in the liver, caused by hepatitis B virus.
- Chronic hepatitis B may eventually cause cirrhosis and liver cancer.



World Health Organization, Global Hepatitis Report 2022

# Viral STIs: Hepatitis B Virus (HBV)

- **Reservoir of infection:** Humans
- **Infective material:** Contaminated **blood** is the main source, although virus has been found in body secretion such as saliva, vaginal secretion & semen in infected material.
- **Acute hepatitis B**
  - 90% resolve by themselves;
  - <1% develop fulminant hepatic failure
- **Chronic hepatitis B:**
  - 2-10 % progress to chronic state
- **Incubation period 45-180 days (usually 60-90 days)**

# Viral STIs: Hepatitis B Virus (HBV)

- **If you want to learn labs, these are the two:**

+ Antigen [HBsAg]= likely infection

High-level of Antibody without Antigen [Anti-HBc] = likely immunity

# Viral STIs: Hepatitis B Virus (HAV)

## Prevention

- Vaccination - highly effective recombinant vaccines
- Hepatitis B Immunoglobulin (HBIG): exposed within 48 hours of the incident/ neonates whose mothers are HBsAg and HBeAg positive.
- Other measures -screening of blood donors, blood and body fluid precautions.

## Treatment:

- Antivirals (e.g., tenofovir)
- Interferon Alfa
- Liver Transplant

# Viral STIs: Hepatitis C Virus (HCV)

## How many new HCV infections occur annually in the United States?

- In 2017, a total of 3,216 cases of acute hepatitis C were reported to CDC. After adjusting for under-ascertainment and under-reporting, an estimated 44,700 acute hepatitis C cases occurred in 2017.

## What is the prevalence of chronic HCV infection in the United States?

- An estimated 2.4 million people in the United States are living with hepatitis C virus infection

## How likely is HCV infection to become chronic?

- HCV infection becomes chronic in more than 50% of cases.

# Viral STIs: Hepatitis C Virus (HCV)

- **Reservoir of infection:** Humans
- **Infective material:** Blood
- **Transmission:**
  - Intravenous drug use
  - Healthcare exposure: Blood transfusion, transfusion of Blood products, Organ transplant without HCV screening carry significant risk of infection.
  - Hemodialysis
  - Accidental injuries with needles/sharps
  - Sexual/household exposure to anti-HCV-positive contact
  - Multiple sex partners
  - Vertical transmission: Vertical transmission of hepatitis C from an infected mother to her child

# Viral STIs: Hepatitis C

- **Prevention** – No specific active or passive immunizing agent is available.
- **Treatment** – Cure!  
Acute & Chronic

**Hepatitis B (HBV)** is treated with an oral antiviral medication over the long-term. Recommendations may be different in HIV co-infection. See drug page or package insert for complete information on dosage and treatment duration requirements.



**Baraclude**  
entecavir (ETV)

**ADULTS (AGE 16 AND OLDER):** Treatment naïve with compensated liver disease, one 0.5 mg tablet once daily.

**ADULTS WITH DECOMPENSATED LIVER DISEASE:** One 1 mg tablet once per day. Dose adjustments needed for individuals with kidney disease or significant toxicity. See package insert and consult a medical provider for more detail.  
**PEDIATRIC PATIENTS (AGE 2-15) WEIGHING AT LEAST 22 POUNDS (10 KG):** Dosing based on weight and should be done in consultation with an experienced medical provider. An oral solution is also available for pediatrics.

Baraclude should always be taken on an empty stomach (no food 2 hours before or 2 hours after taking pill). Tablet and solution are interchangeable. Solution may be used for reduced doses in people with kidney disease.  
■ Generic tablet available.



**Vemlidy**  
tenofovir alafenamide (TAF)

**ADULTS AND ADOLESCENTS AGE 12 AND OLDER:** One 25 mg tablet once daily, with food.

Not recommended for individuals with kidney disease if creatinine clearance is below 15 mL per minute who are not receiving chronic hemodialysis or for individuals with decompensated cirrhosis. Not FDA approved for children.



**Viread**  
tenofovir disoproxil fumarate (TDF)

**ADULTS AND PEDIATRIC PATIENTS WEIGHING AT LEAST 77 POUNDS/35 KG:** One 300 mg tablet, once per day.  
**PEDIATRIC PATIENTS AGE 2 AND OLDER WEIGHING AT LEAST 22 POUNDS (10 KG):** Oral powder and smaller pediatric tablets available for children. Pediatric dose is based upon weight.

All doses to be taken with or without food. Dose adjustment needed for adults with kidney disease. See drug page and consult a medical provider for more information.  
■ Generic available for 300 mg tablets, not for pediatric or powder.

FDA approved HBV medications that are rarely prescribed or are not preferred:



**Epivir-HBV**  
lamivudine (3TC)



**Hepsera**  
adefovir (ADV)



**Pegasys**  
peginterferon alfa-2a (PEG-IFN)

**Hepatitis C (HCV)** is treated with either a fixed-dose combination (FDC) medication or in combination with other Direct Acting Antiviral (DAA) agents for 8-12 weeks for most patients; rarely some people need up to 24 weeks (see drug page). The majority are approved for HIV/HCV co-infection. See drug page or package insert for complete information on dosage and treatment duration requirements. These are AASLD/IDSA recommended FDA-approved medications for both treatment-naïve and treatment-experienced patients.



**Eplclusa**  
sofosbuvir/velpatasvir (SOF/VEL)  
GENOTYPE 1 2 3 4 5 6

**ADULTS AND PEDIATRIC PATIENTS WEIGHING AT LEAST 66 POUNDS (30 KG):** One 400 mg sofosbuvir/100 mg velpatasvir tablet once daily, with or without food.  
**PEDIATRIC PATIENTS AGE 3 AND OLDER WEIGHING LESS THAN 66 POUNDS (30 KG):** Dosing is weight-based, using either lower-dose tablets or FDA-approved pellets. Ribavirin may be included in patients with decompensated cirrhosis.

■ Authorized generic available for the tablets.



**Harvoni**  
ledipasvir/sofosbuvir (SOF/LDV)  
GENOTYPE 1 4 5 6

**ADULTS AND PEDIATRIC PATIENTS WEIGHING AT LEAST 77 POUNDS (35 KG):** One 90 mg ledipasvir / 400 mg sofosbuvir tablet once daily, with or without food.  
**PEDIATRIC PATIENTS 3 YEARS OF AGE AND OLDER, WEIGHING LESS THAN 77 POUNDS (35 KG):** Dosing is weight-based; lower-dose tablets and FDA-approved pellets are available for pediatrics.

Ribavirin may be added in people with decompensated cirrhosis or liver transplant recipients with cirrhosis (compensated or decompensated).

■ Authorized generic tablets available.



**Mavyret**  
glecaprevir/pibrentasvir (GLE/PIB)  
GENOTYPE 1 2 3 4 5 6

**ADULTS AND PEDIATRIC PATIENTS AT LEAST 12 YEARS OF AGE AND WEIGHING AT LEAST 99 POUNDS (45 KG):** Three 100 mg glecaprevir/40 mg pibrentasvir tablets taken together once daily with food; may be taken by those with compensated cirrhosis.  
**PEDIATRIC PATIENTS AGE 3 AND OLDER AND WEIGHING LESS THAN 99 POUNDS (45 KG):** Dosing is weight-based, using lower-dose pellets. Lower dose pellets are available for pediatric patients up to 3 years of age and weighing less than 99 lbs. (45 kg).  
Contraindicated in decompensated cirrhosis.



**Vosevi**  
sofosbuvir/velpatasvir/voxilaprevir (SOF/VEL/VOX)  
GENOTYPE 1 2 3 4 5 6

Each tablet contains 400 mg sofosbuvir, 100 mg velpatasvir, 100 mg voxilaprevir. One tablet once daily, with food; may be taken by those with compensated cirrhosis. Not recommended in people with moderate or severe liver impairment. Not FDA approved for use in co-infection, but may be considered.

FDA approved HCV medications that are rarely prescribed or are not preferred:



**Sovaldi**  
sofosbuvir (SOF, or SOV)  
(Sofosbuvir is used in FDCs.)



**ribavirin**  
(RBV)



**Zepatier**  
grazoprevir/elbasvir (GZR/EBR)

# Viral STIs: HIV

## ENDING THE HIV EPIDEMIC

- Announced 2019
- Goal to end epidemic by 2030
- **Reduce new infections by 90% by 2030**







Ending  
the  
HIV  
Epidemic

**Overall Goal: Decrease the number of new HIV diagnoses to 9,588 by 2025 and 3,000 by 2030.**





# Viral STIs: HIV Pre-Exposure Prophylaxis (PrEP)

	TDF/FTC	TAF/FTC	Cabotegravir	Lenacapavir
Brand name	Truvada	Descovy	Apretude	Yeztugo
Type	Oral Tablet	Oral Tablet	Injection	Injection
Formulation				
Dosing	Daily On-Demand	Daily On-Demand	IM Injection q2 months	SubQ injection q6 months
Population	All	MSM [REDACTED] (not receptive vaginal sex)	All	All

# Viral STIs: Overview of Biomedical PrEP Pipeline




## In development: Preclinical and clinical

-  Long-acting implants
-  Preventive vaccines
-  Multipurpose vaginal ring
-  Long-acting vaginal ring
-  Patches
-  Douche
-  Vaginal Film
-  Vaginal Gel
-  Monthly oral PrEP
-  Vaginal/Mucosal Inserts
-  Broadly neutralizing antibodies
-  Injectable

## In development: Efficacy trials under way

-  Daily oral PrEP <sup>1</sup>
  -  Combo oral PrEP/OC
- Possible dual pill to market by 2025 <sup>2</sup>*







## Newly Approved and Recommended

-  Dapivirine vaginal ring
-  Injectable cabotegravir
-  Injectable lenacapavir

And in implementation science projects:

[www.prepwatch.org/resources/implementation-study-tracker/](http://www.prepwatch.org/resources/implementation-study-tracker/)

## Currently available

-  HIV treatment for people living with HIV/U=U
  -  Male & female condoms
  -  Voluntary medical male circumcision
  -  Syringe exchange programs
  -  Daily oral PrEP
  -  PEP
- Event-driven for some populations*

# Viral STIs: HIV PrEP

## ON DEMAND PREP (2-1-1)

- Event driven, intermittent, or on demand PreP
- Nondaily oral PreP regimen (only TDF/FTC (Truvada) dosed in relation to sexual intercourse events (for those who have reliable to predict, less frequent sex (on vacation, etc.) for whom daily oral PrEP may not be most reasonable)
- NOT FDA approved however two trials (IPERGAY and Prevenir) have demonstrated efficacy of TDF/FTC only in MSM
- Approved by WHO Guidance on PrEP
- Only for use in MSM, Not for use in [REDACTED] heterosexual men/women
- Directions for use:
  - 2 pills in the 2-24 hours before sex (closer to 24 hrs preferred)
  - 1 pill 24 hours after the initial 2 pill dose
  - 1 pill 48 hours after the initial 2 pill dose
- Take additional doses if:
  - Sex occurs on the consecutive day after completing 2-1-1 dose, take 1 pill per day for the 48 hours after the last sexual event
  - If a gap of <7 days occurs between the last pill and the next sexual event, resume 1 pill daily
  - If a gap of  $\geq 7$  days occurs between the last pill and the next sexual event, start again with 2 pills

# Viral STIs: HIV nPEP

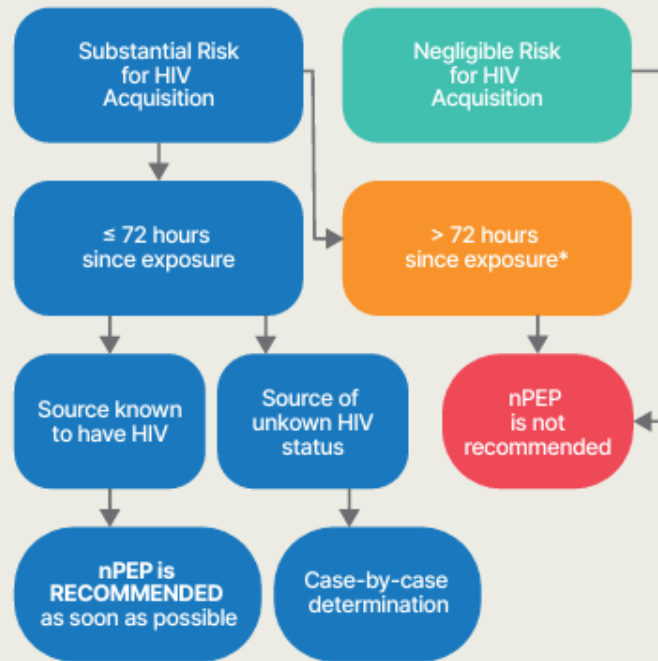
## nPEP

Non-Occupational Post-Exposure HIV Prevention

Assessment, treatment, and follow-up recommendations for people with known or potential exposures to HIV and other infections. Health care providers should evaluate persons rapidly for nPEP when care is sought  $\leq 72$  hours after an exposure that presents a substantial risk for HIV acquisition.



### Risk Assessment



\*Some clinicians would offer nPEP on a case-by-case basis.

### Substantial Risk for HIV Acquisition

**Exposure of:** vagina, penis, rectum, eye, mouth or other mucous membrane, non-intact skin, or percutaneous contact

**With:** blood, semen, vaginal secretions, rectal secretions, breast milk, any body fluid that is visibly contaminated with blood

**When:** the source is known to have HIV

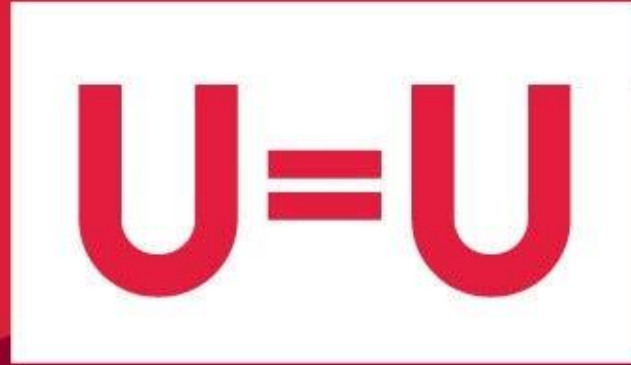
### Negligible Risk for HIV Acquisition

**Exposure of:** vagina, penis, rectum, eye, mouth or other mucous membrane, non-intact skin, or percutaneous contact

**With:** urine, nasal secretions, saliva, sweat, tears (if visible blood, see "Substantial Risk for HIV Acquisition")

**When:** regardless of the known or suspected HIV status of the source

# Viral STIs: U=U



UNDETECTABLE = UNTRANSMITTABLE

# Viral STIs: HIV Treatment



# 2025 HIV DRUG CHART

This quick-reference chart compares antiretroviral (ARV) options for the treatment of HIV, including adult dosing and dietary restrictions. Visit [poz.com/drugchart](http://poz.com/drugchart) for more info.

\*Generic version available in the U.S. (Pills not shown actual size)

Complete Regimens



**ATRIPLA\***  
**efavirenz + tenofovir disoproxil fumarate + emtricitabine**  
 One tablet once a day. Each tablet contains 600 mg efavirenz + 300 mg tenofovir disoproxil fumarate + 200 mg emtricitabine. Take on an empty stomach. Dose should be taken at bedtime to minimize dizziness, drowsiness and impaired concentration.



**BIKTARVY**  
**bictegravir + tenofovir alafenamide + emtricitabine**  
 One tablet once a day. Each tablet contains 50 mg bictegravir + 25 mg tenofovir alafenamide + 200 mg emtricitabine. Take with or without food.



**CABENUVA**  
**cabotegravir + rilpivirine**  
 A long-acting injectable regimen administered as two intramuscular injections every four weeks or eight weeks. A one-month lead-in period with vocabria (cabotegravir) + Edurant (rilpivirine) pills is optional. Take with food.



**COMPLERA**  
**rilpivirine + tenofovir disoproxil fumarate + emtricitabine**  
 One tablet once a day. Each tablet contains 25 mg rilpivirine + 300 mg tenofovir disoproxil fumarate + 200 mg emtricitabine. Take with a meal.



**DELSTRIGO**  
**doravirine + tenofovir disoproxil fumarate + lamivudine**  
 One tablet once a day. Each tablet contains 100 mg doravirine + 300 mg tenofovir disoproxil fumarate + 300 mg lamivudine. Take with or without food.



**DOVATO**  
**dolutegravir + lamivudine**  
 One tablet once a day. Each tablet contains 50 mg dolutegravir + 300 mg lamivudine. Take with or without food.



**GENVOYA**  
**elvitegravir + cobicistat + tenofovir alafenamide + emtricitabine**  
 One tablet once a day. Each tablet contains 150 mg elvitegravir + 150 mg cobicistat + 10 mg tenofovir alafenamide + 200 mg emtricitabine. Take with food.

Nucleoside/Nucleotide Reverse Transcriptase Inhibitors (NRTIs, or nukes)



**CIMDUO**  
**tenofovir disoproxil fumarate + lamivudine**  
 One tablet once a day. Each tablet contains 300 mg tenofovir disoproxil fumarate + 300 mg lamivudine. Take with or without food.



**DESCOVO**  
**tenofovir alafenamide + emtricitabine**  
 One tablet once a day. Each tablet contains 25 mg tenofovir alafenamide + 200 mg emtricitabine. Take with or without food.



**EMTRIVA\***  
**emtricitabine (also known as FTC)**  
 One 200 mg capsule once a day. Take with or without food.



**EPIVIR\***  
**lamivudine (also known as 3TC)**  
 One 300 mg tablet once a day, or one 150 mg tablet twice a day. Take with or without food. Also approved for the treatment of hepatitis B virus but at a lower dose. People living with both viruses should use the HIV dose.



**EPZICOM\***  
**abacavir + lamivudine**  
 One tablet once a day. Each tablet contains 600 mg abacavir + 300 mg lamivudine. Take with or without food. Should be used only by individuals who are HLA-B\*5701 negative.



**TEMIXYS**  
**tenofovir disoproxil fumarate + lamivudine**  
 One tablet once a day. Each tablet contains 300 mg tenofovir disoproxil fumarate + 300 mg lamivudine. Take with or without food.



**TRUVADA\***  
**tenofovir disoproxil fumarate + emtricitabine**  
 One tablet once a day. Each tablet contains 300 mg tenofovir disoproxil fumarate + 200 mg emtricitabine. Take with or without food.



**VIREAD\***  
**tenofovir disoproxil fumarate**  
 One 300 mg tablet once a day. Take with or without food.



**ZIAGEN\***  
**abacavir**  
 One 300 mg tablet twice a day, or two 300 mg tablets once a day. Take with or without food. Should be used only by individuals who are HLA-B\*5701 negative.

Protease Inhibitors (PIs)



**EVOTAZ**  
**atazanavir + cobicistat**  
 One tablet once a day. Each tablet contains 300 mg atazanavir + 150 mg cobicistat. Take with food.



**KALETRA\***  
**lopinavir + ritonavir**  
 Two tablets twice a day, or four tablets once a day, depending on HIV drug resistance. Each tablet contains 200 mg lopinavir + 50 mg ritonavir. Take with or without food.



**PREZCOBIX**  
**darunavir + cobicistat**  
 One tablet once a day. Each tablet contains 800 mg darunavir + 150 mg cobicistat. Take with food.



**PREZISTA**  
**darunavir**  
 One 800 mg tablet, or two 400 mg tablets plus one 100 mg Norvir tablet once a day, or one 600 mg tablet plus one 100 mg Norvir tablet twice a day, depending on drug resistance. Take with food.



**REYATAZ\***  
**atazanavir**  
 Two 200 mg capsules once a day, or one 300 mg capsule plus one 100 mg Norvir tablet once a day. Take with food.

Integrase Inhibitors



**ISENRESS**  
**raltegravir**  
 Two 600 mg Isentress HD tablets (shown) once a day for those who are treatment naive or whose virus has been suppressed on an initial regimen of Isentress. One 400 mg Isentress tablet twice daily for people with HIV treatment experience. Take with or without food.



**TIVICAY**  
**dolutegravir**  
 One 50 mg tablet once a day for those first starting ARV therapy or for those who have not used an integrase inhibitor in the past. One 50 mg tablet twice a day for people with treatment experience who have HIV that is resistant to other integrase inhibitors and when taken with certain ARVs. Take with or without food.



**VOCABRIA**  
**cabotegravir**  
 One 30 mg tablet taken once a day with once-daily Edurant for a month as an optional lead-in regimen before switching to Cabenuva injections or for short-term treatment. Take with food.

# Viral STIs: HIV Treatment

## Complete Regimens



**JULUCA**  
dolutegravir + rilpivirine  
One tablet once a day. Each tablet contains 50 mg dolutegravir + 25 mg rilpivirine. Take with a meal.



**ODEFSEY**  
rilpivirine + tenofovir alafenamide + emtricitabine  
One tablet once a day. Each tablet contains 25 mg rilpivirine + 25 mg tenofovir alafenamide + 200 mg emtricitabine. Take with a meal.



**STRIBILD**  
elvitegravir + cobicistat + tenofovir disoproxil fumarate + emtricitabine  
One tablet once a day. Each tablet contains 150 mg elvitegravir + 150 mg cobicistat + 300 mg tenofovir disoproxil fumarate + 200 mg emtricitabine. Take with food.



**SYMFI AND SYMFI LO**  
efavirenz + tenofovir disoproxil fumarate + lamivudine  
One tablet of either Symfi or Symfi Lo once a day. Each tablet of Symfi contains 600 mg efavirenz + 300 mg tenofovir disoproxil fumarate + 300 mg lamivudine. Each tablet of Symfi Lo (shown) contains 400 mg efavirenz + 300 mg tenofovir disoproxil fumarate + 300 mg lamivudine. Take on an empty stomach. Dose should be taken at bedtime to minimize dizziness, drowsiness and impaired concentration.



**SYMITUZA**  
darunavir + cobicistat + tenofovir alafenamide + emtricitabine  
One tablet once a day. Each tablet contains 800 mg darunavir + 150 mg cobicistat + 10 mg tenofovir alafenamide + 200 mg emtricitabine. Take with food.



**TRIUMEQ**  
dolutegravir + abacavir + lamivudine  
One tablet once a day. Each tablet contains 50 mg dolutegravir + 600 mg abacavir + 300 mg lamivudine. Take with or without food. Should be used only by individuals who are HLA-B\*5701 negative.

## Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTIs, or non-nukes)



**EDURANT**  
rilpivirine  
One 25 mg tablet once a day. Take with food.



**INTELENCE**  
etravirine  
One 200 mg tablet twice a day. Take with food.



**PIFELTRO**  
doravirine  
One 100 mg tablet once a day. Take with or without food.



**SUSTIVA \***  
efavirenz  
One 600 mg tablet (shown) once a day, or three 200 mg capsules once a day. Take on an empty stomach or with a low-fat snack. Dose should be taken at bedtime to minimize dizziness, drowsiness and impaired concentration.



**RUKOBIA**  
fostemsavir  
One 600 mg tablet twice a day for people with HIV treatment experience. Take with or without food.



**SELZENTRY**  
maraviroc  
One 150 mg, 300 mg (shown) or 600 mg tablet twice a day, depending on other meds used, for people with HIV treatment experience. Take with or without food.



**TROGARZO**  
ibalizumab  
A long-acting injectable administered intravenously as a single loading dose of 2,000 mg followed by a maintenance dose of 800 mg every two weeks for people with HIV treatment experience.

## Entry Inhibitors

## PK Boosters



**NORVIR \***  
ritonavir  
Norvir is usually taken to boost the levels of other ARVs in the blood. Take with food.



**TYBOST**  
cobicistat  
One 150 mg tablet once a day in combination with ARVs that require boosting. Used only to boost other drugs. Take with food.

## Capsid Inhibitors



**SUNLENCA**  
lenacapavir  
Sunlenca tablets are taken as a loading dose, with injections once every six months thereafter. Take with or without food.

These antiretroviral medications are rarely prescribed and no longer recommended:



**APTIVUS**  
tipranavir



**COMBIVIR \***  
zidovudine + lamivudine



**CRIXIVAN**  
indinavir



**FUZEON**  
enfuvirtide



**INVIRASE**  
saquinavir



**LEXIVA**  
fosamprenavir



**RETROVIR \***  
zidovudine (AZT)



**TRIZIVIR**  
abacavir + zidovudine + lamivudine



**VIRACEPT**  
nelfinavir



**VIRAMUNE**  
nevirapine



**ZERIT**  
stavudine (d4T)

Visit [poz.com/drugchart-prevention](http://poz.com/drugchart-prevention) for a list of ARV options to prevent HIV.

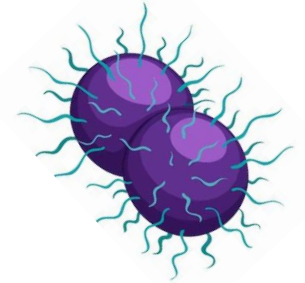
# Viral STIs: Multi-Level Drivers of HIV Transmissions

<b>Biology</b>	<ul style="list-style-type: none"><li>• Enhanced efficiency of anal intercourse</li><li>• STI inflammation and ulceration</li><li>• Role versatility (being able to be receptive and insertive)</li></ul>
<b>Individual behavior</b>	<ul style="list-style-type: none"><li>• Depression, and other affective disorders</li><li>• Substance use</li><li>• Avoidant health-related behavior delays engagement in care</li><li>• Condomless sex</li></ul>
<b>Social networks</b>	<ul style="list-style-type: none"><li>• Number of partners/time</li><li>• Assortative mixing in high prevalence subgroups</li><li>• Sexualized venues (e.g. bath houses, apps)</li></ul>
<b>Structural/Institutional</b>	<ul style="list-style-type: none"><li>• Societal impacts</li><li>• Health system impacts</li><li>• Punitive laws and criminalization</li><li>• Poverty</li><li>• Violence/victimization</li></ul>

# Bacterial STIs: The Players

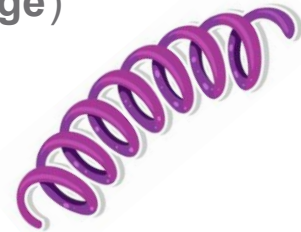
## Gonorrhea

- Causative agent: *Neisseria gonorrhoeae* (bacterium)
- Infection site: **Genitourinary tract, throat, rectum**
- Symptoms: **Painful urination, discharge, asymptomatic in many cases**
- Complications: **PID, infertility, increased risk of HIV**



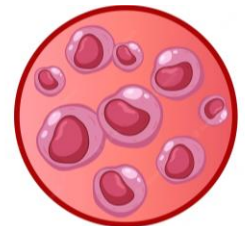
## Syphilis

- Causative agent: *Treponema pallidum* (spirochete bacterium)
- Stages: **Primary (ulcers), Secondary (rash), Latent, Tertiary (organ damage)**
- Symptoms: **Varies by stage, can be asymptomatic**
- Complications: **Neurological, cardiovascular issues, congenital syphilis**



## Chlamydia

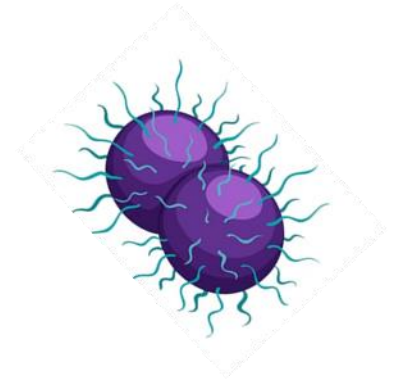
- Causative agent: *Chlamydia trachomatis* (bacterium)
- Infection site: **Genitourinary tract**
- Symptoms: **Often asymptomatic, may have discharge or painful urination**
- Complications: **PID, ectopic pregnancy, infertility**



# Bacterial STIs: The Trends & The Impact

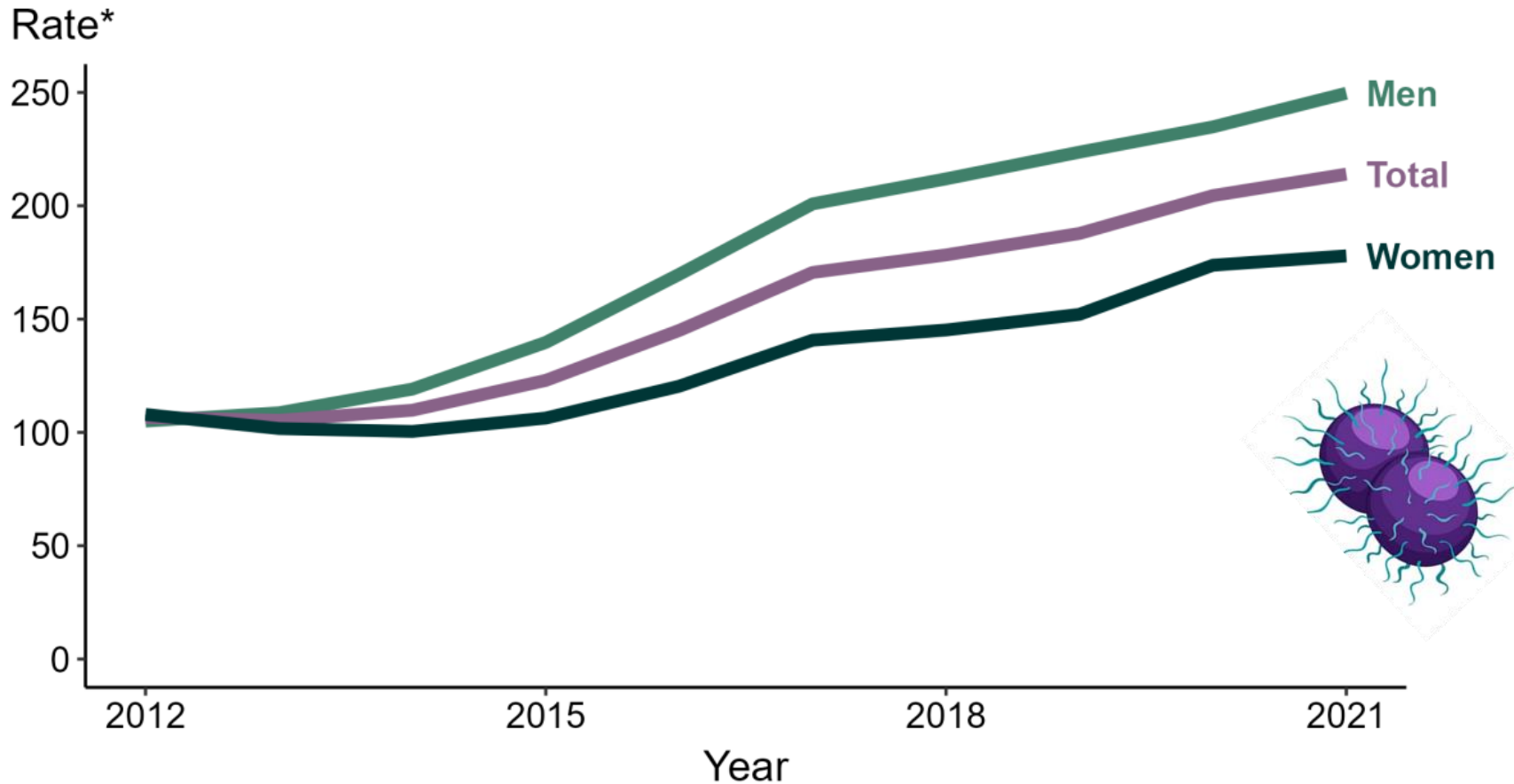
## Gonorrhea

- Incidence: **Rising, especially among young adults**
- **Antibiotic resistance:** Growing concern



# Bacterial STIs

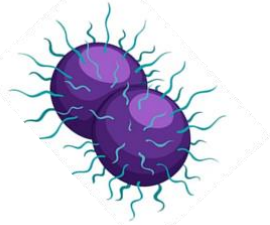
## Gonorrhea — Rates of Reported Cases by Sex, United States, 2012–2021



\* Per 100,000

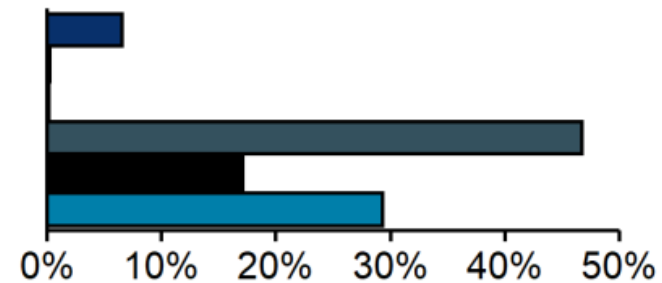
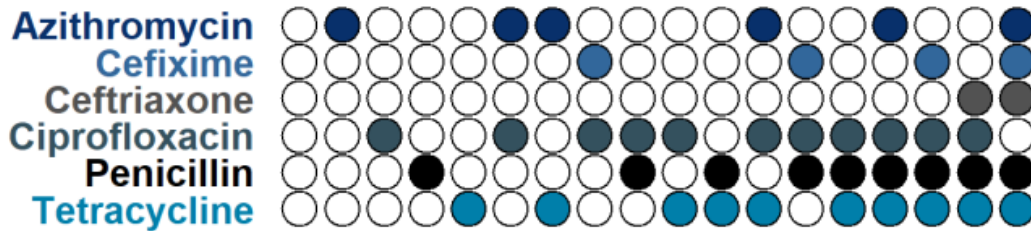
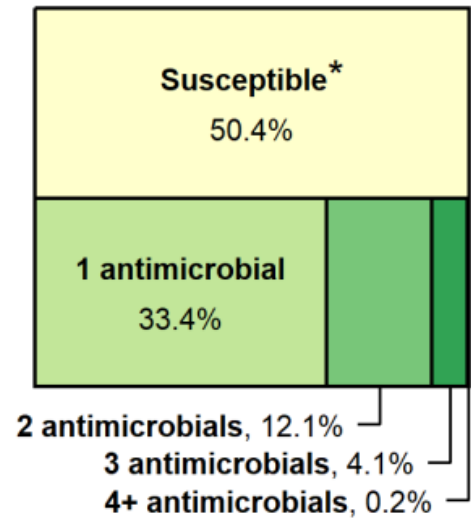
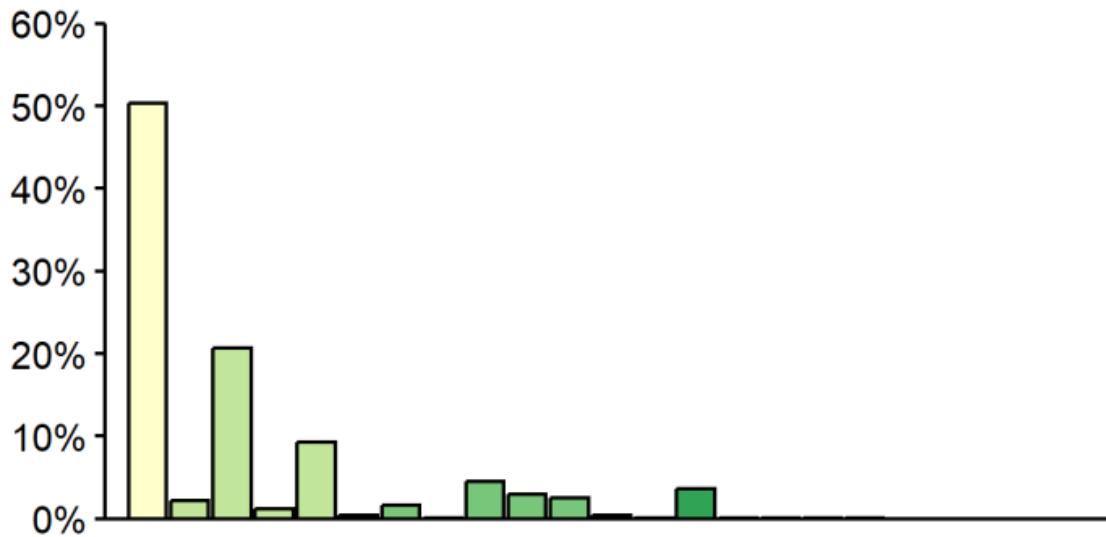
CDC, STI Surveillance 2022 Report

# Bacterial STIs



Resistance or Elevated Minimum Inhibitory Concentration (MIC) Patterns of *Neisseria gonorrhoeae* Isolates to Antimicrobials, Gonococcal Isolate Surveillance Project (GISP), 2021

Percentage by Antimicrobial Combination

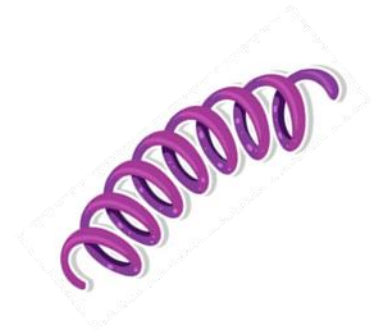


Percentage by Antimicrobial (Alone or in Combination)

# Bacterial STIs: The Trends & The Impact

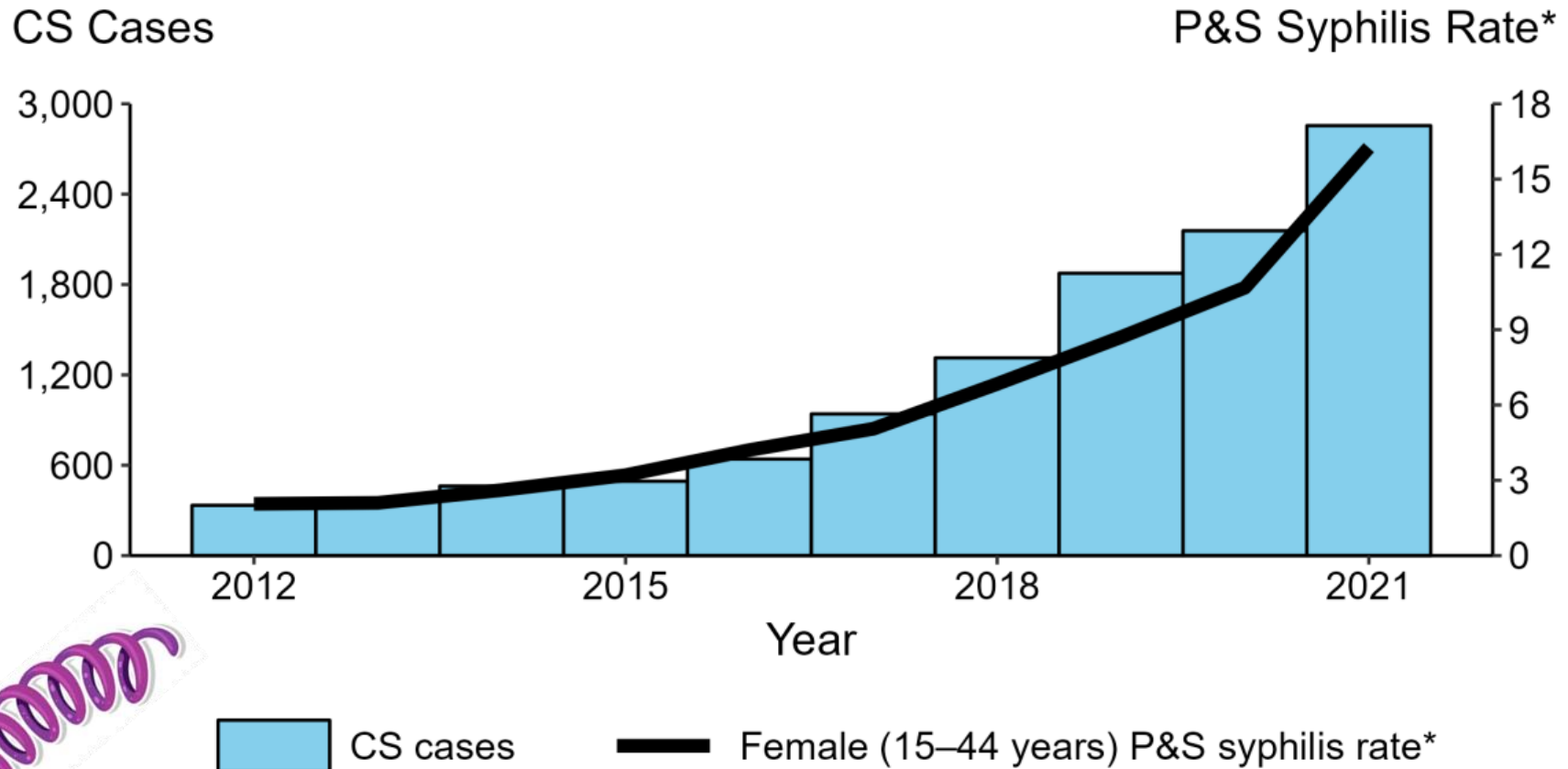
## Syphilis

- Incidence: **Increasing, particularly among men who have sex with men**
- **Congenital syphilis:** Rising numbers, significant public health concern



# Bacterial STIs

## Congenital Syphilis — Reported Cases by Year of Birth and Rates of Reported Cases of Primary and Secondary Syphilis Among Women Aged 15–44 Years, United States, 2012–2021



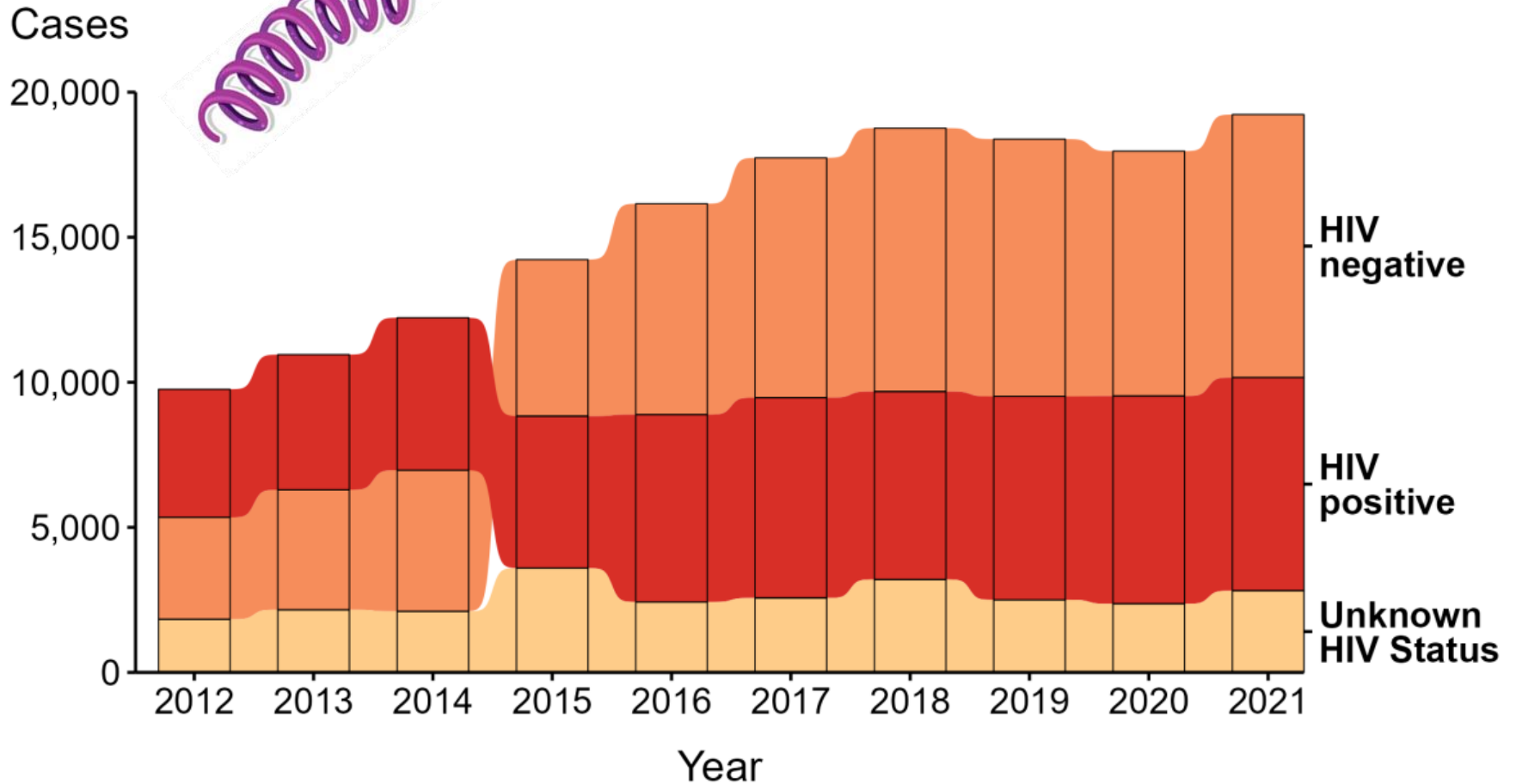
\* Per 100,000

**ACRONYMS:** CS = Congenital syphilis; P&S Syphilis = Primary and secondary syphilis

CDC, STI Surveillance 2022 Report

# Bacterial STIs

Primary and Secondary Syphilis — Reported Cases Among Men Who Have Sex with Men by HIV Status, United States, 2012–2021

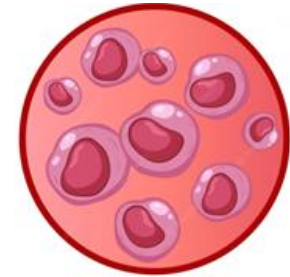


CDC, STI Surveillance 2022 Report

# Bacterial STIs: The Trends & The Impact

## Chlamydia:

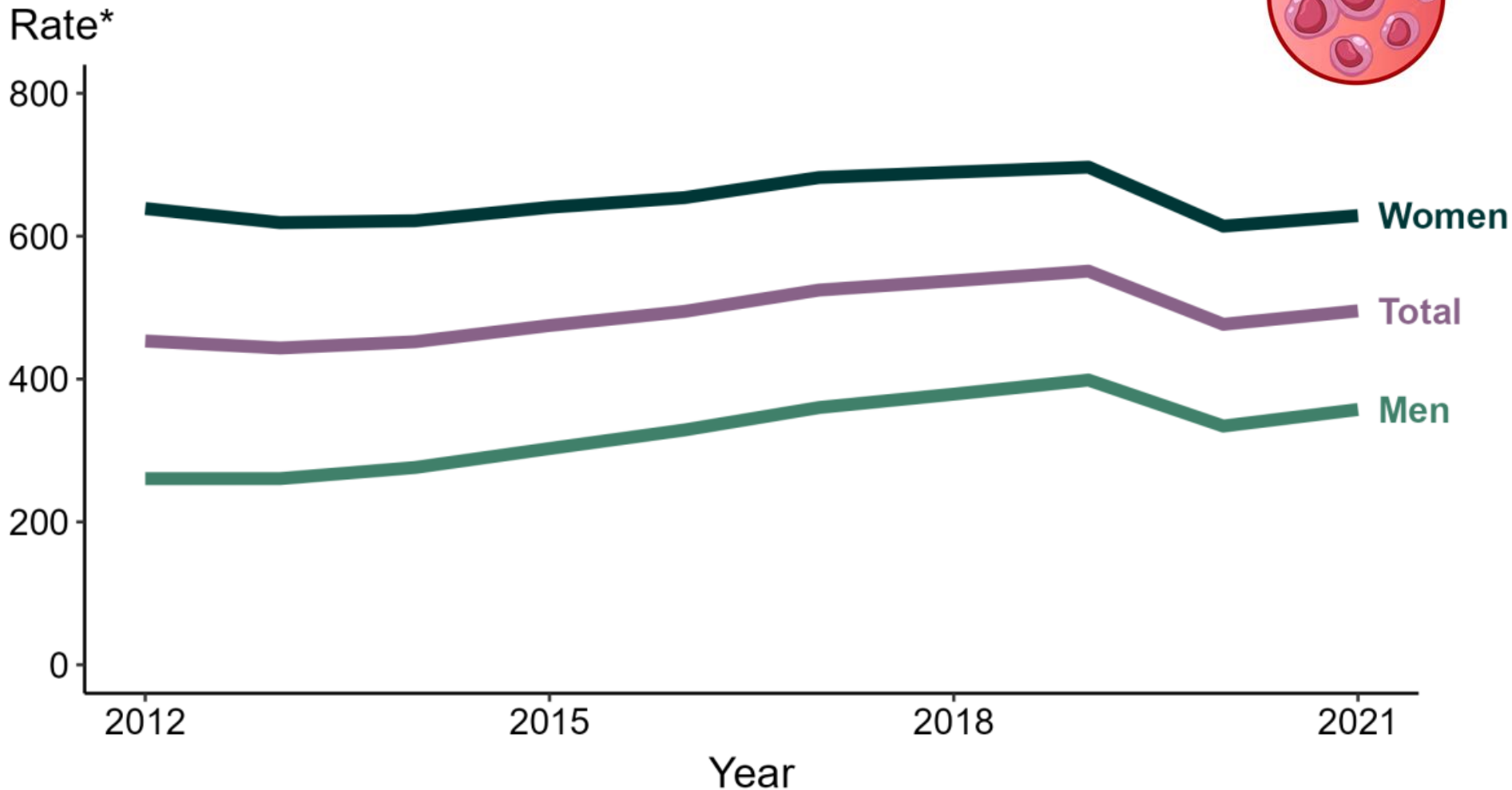
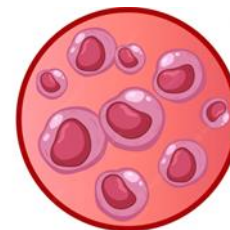
- Incidence: **Most commonly reported STI in the U.S.**
- Screening: Recommended for sexually active women under 25



# Bacterial STIs

Chlamydia — Rates of Reported Cases by Sex,  
United States, 2012–2021

\*Per 100,000

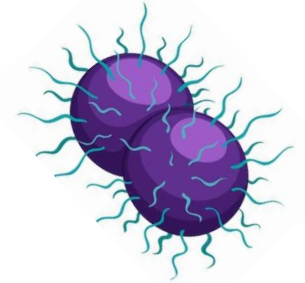


CDC, STI Surveillance 2022 Report

# Antimicrobials: The Classes & The Resistance

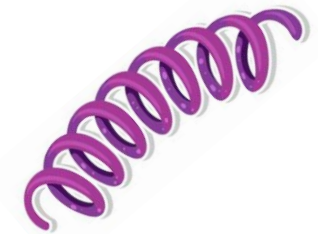
## Gonorrhea

- Ceftriaxone (Cephalosporin, beta-Lactam)
- Recent Update: Increase to 500mg IM dose



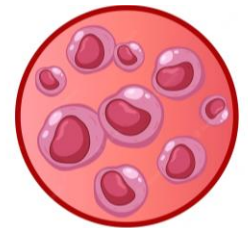
## Syphilis

- Benzathine penicillin G (beta-Lactam), varies by stage
- Doxycycline (tetracycline)



## Chlamydia

- Doxycycline (Tetracycline)
- Recent Update: Provide doxycycline as first-line, no longer single dose Azithromycin

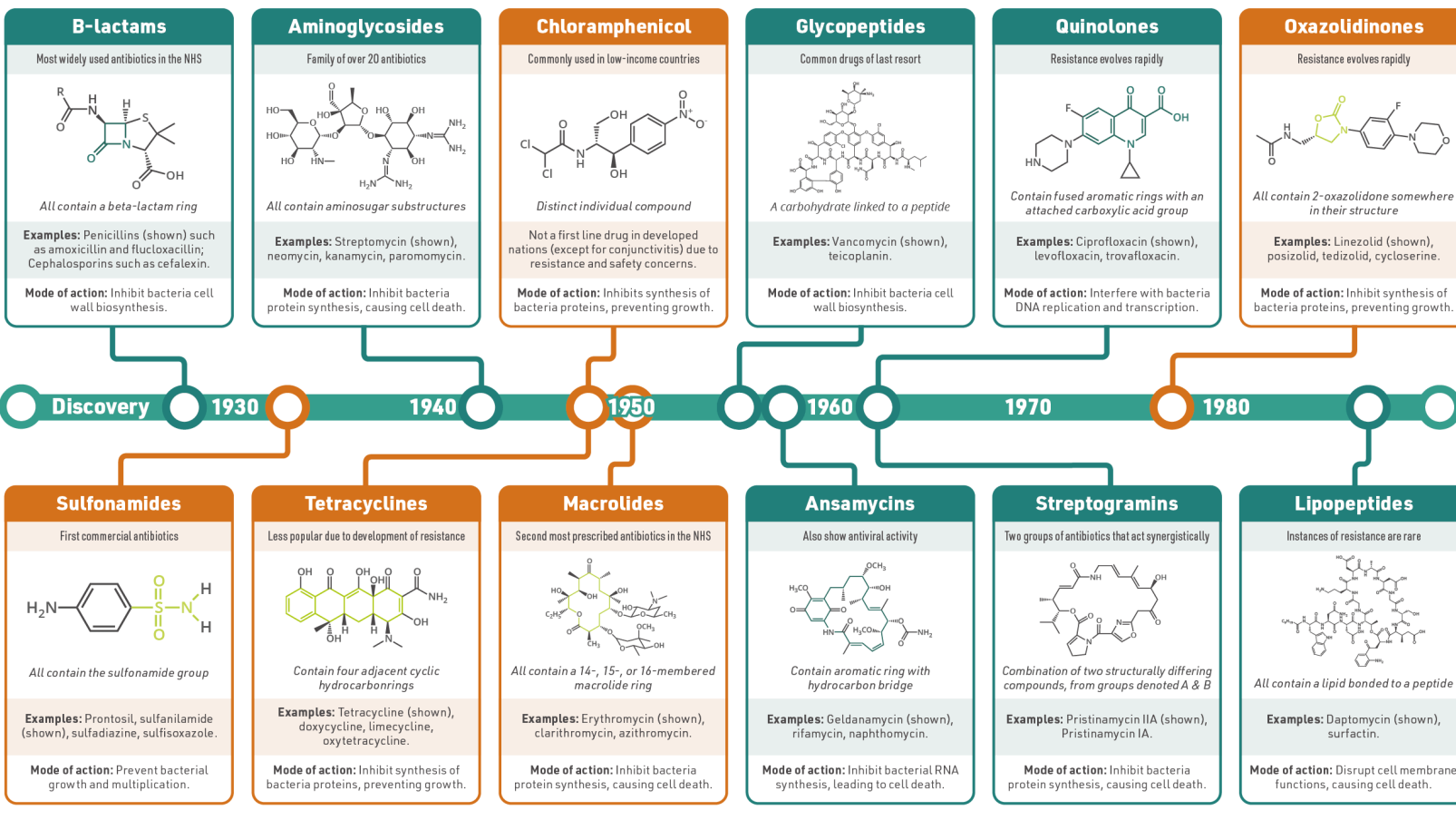


# Antimicrobials: The Classes

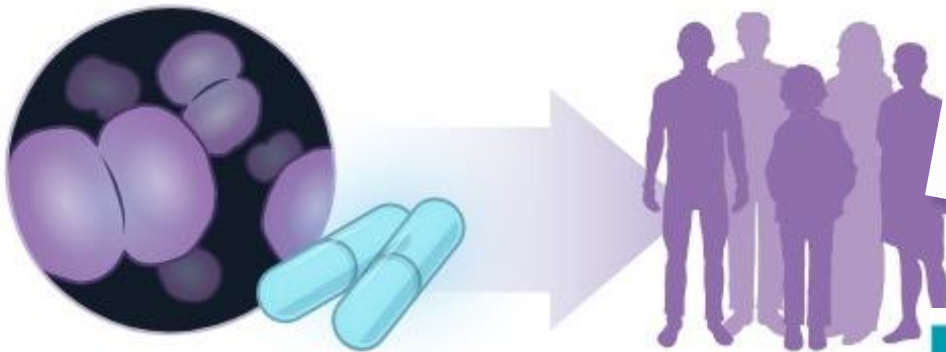


## An overview of classes of antibiotics

**Key:** ● Commonly act as **bacteriostatic agents**, restricting growth and reproduction ● Commonly act as **bactericidal agents**, causing bacterial cell death



# DoxyPEP: Doxycycline Post-Exposure Prophylaxis



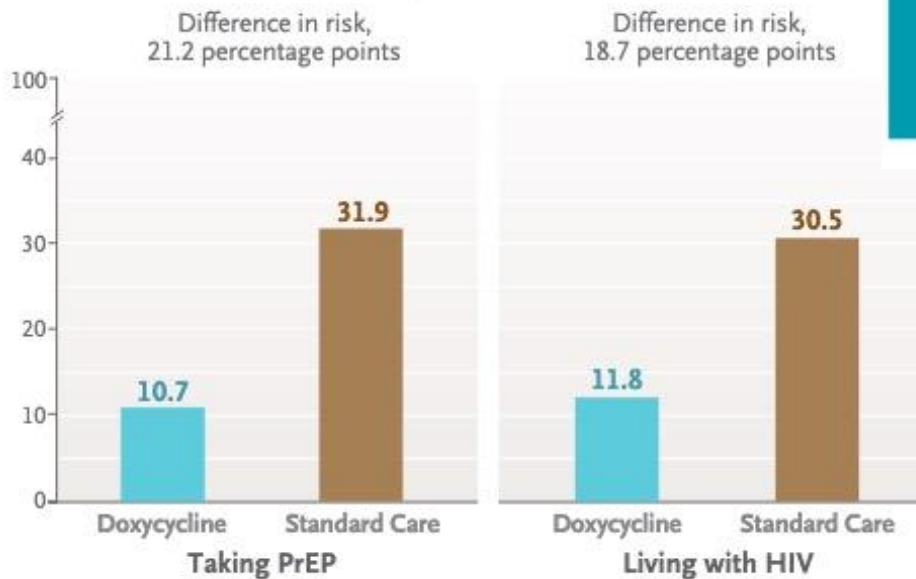
## Postexposure Doxycycline to Prevent Bacterial Sexually Transmitted Infections

Anne F. Luetkemeyer, M.D., Deborah Donnell, Ph.D., Julia C. Dombrowski, M.D., M.P.H.,  
Stephanie Cohen, M.D., M.P.H., *et al.*, for the DoxyPEP Study Team\*

### CONCLUSIONS

Among MSM and [REDACTED] who had recently had a bacterial STI, doxycycline postexposure prophylaxis was associated with a lower risk of bacterial STIs than standard care.

### Quarterly Visits with $\geq 1$ STI



# DoxyPEP: Doxycycline Post-Exposure Prophylaxis

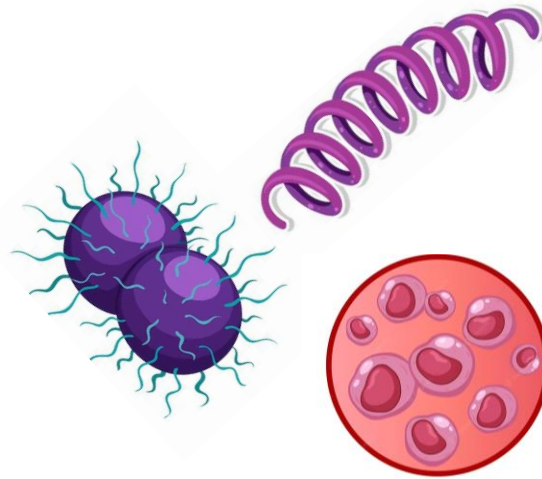
**Doxycycline 100mg take two tabs  
by mouth within 72 hours after  
condomless sexual activity (#50, RF1)**



# The Future of Bacterial STI Management

**DoxyPEP**

**Screening**



**Education**

**GC Vaccine**

# The Future of Sexual Health: Syndemic Approach

## Emerging infections

**DoxyPEP**

**Screening**

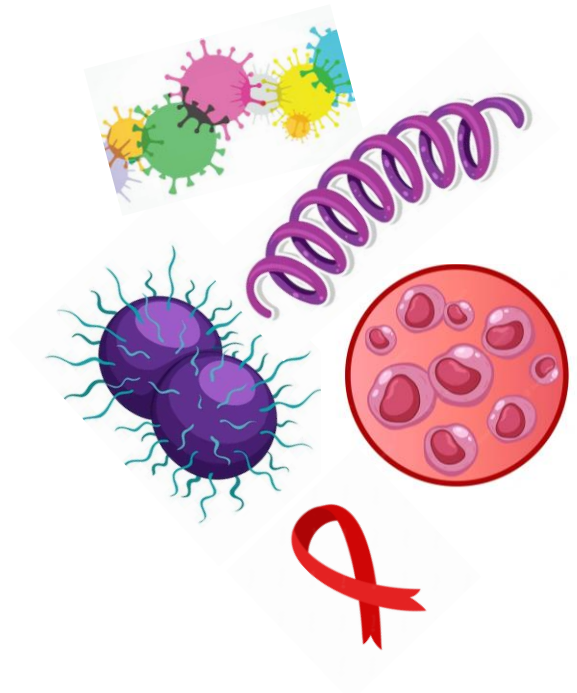
**HPV  
vaccines**

**Mental health  
Substance use  
Access to care**

**Education**

**GC vaccine**

**HIV Management**



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FENWAY **FI** HEALTH



**Thank you!**

Questions / Comments?

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# HRSA DISCLAIMER

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