

# **Women's Sexual Health: STI and HIV Screening**

Barbara E. Wilgus, MSN, CRNP

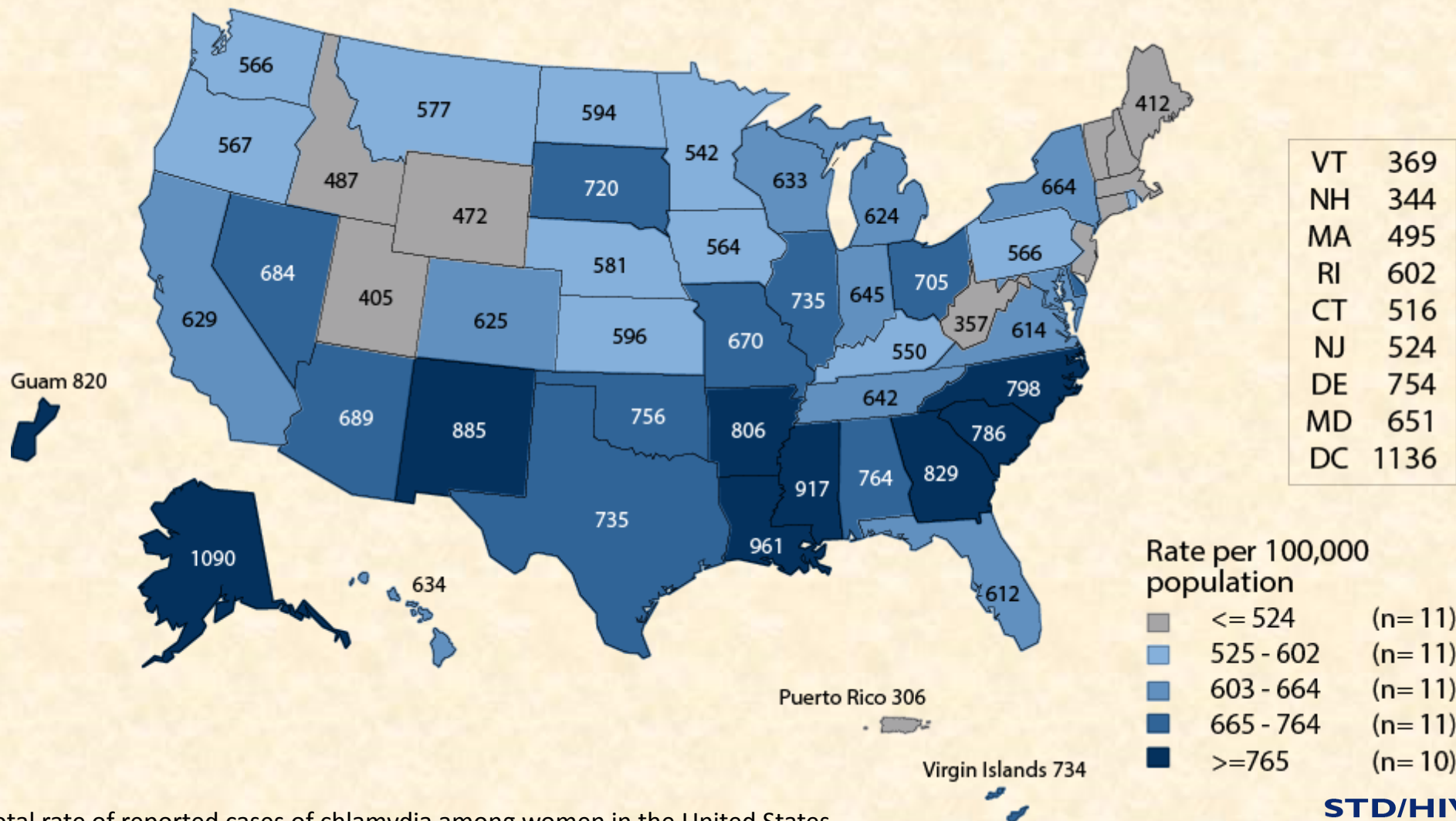
STD/HIV Prevention Training Center at Johns Hopkins

## I have no disclosures!

- Review most recent rates of STIs and HIV across the US
- Discuss CDC's STD Screening Guidelines for women
- Provide information about resources for creating your own sexual health protocol [even to advocate for yourself as a patient!]

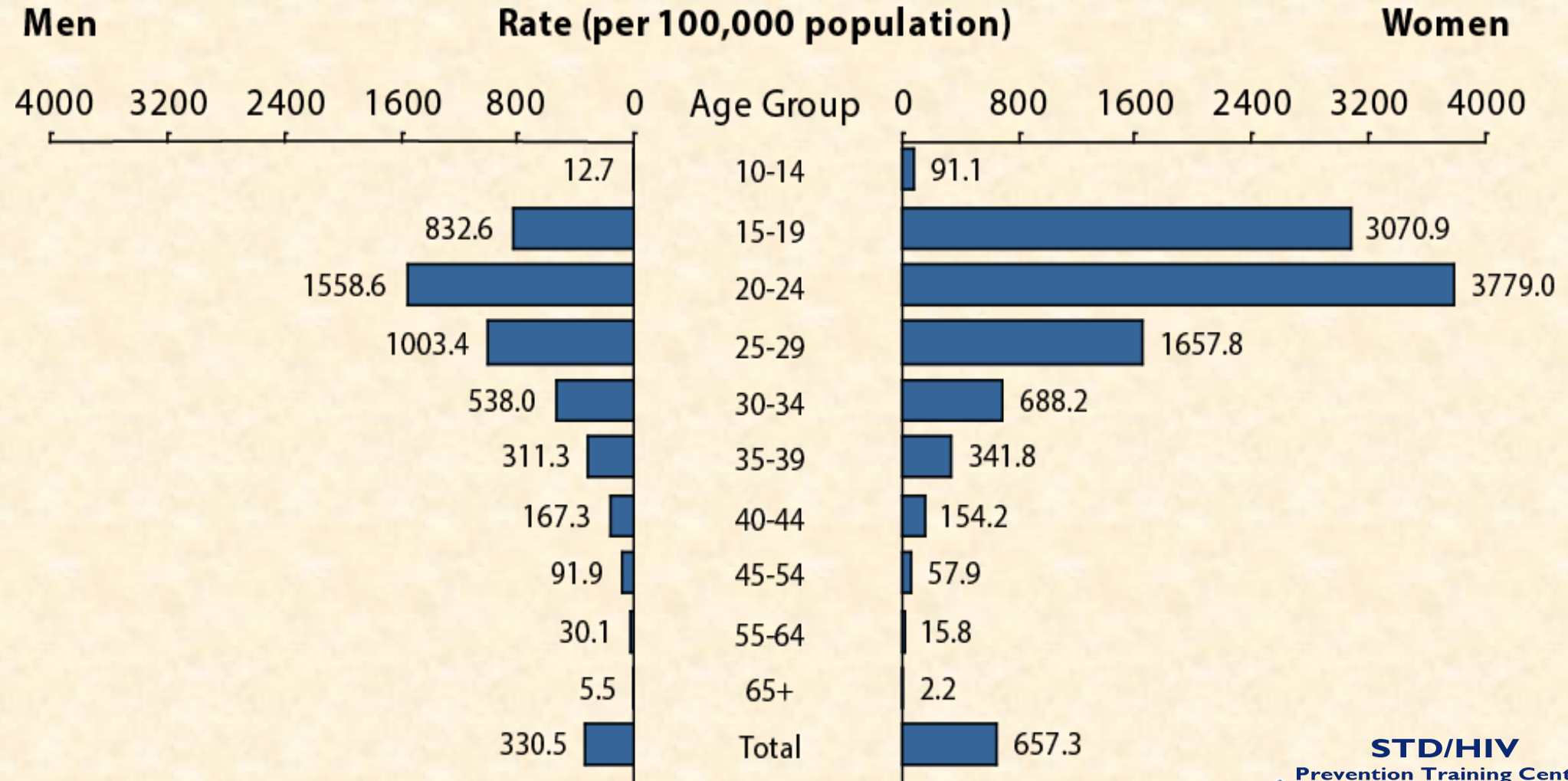
# **STIs and HIV: What's Happening with Women?**

# Chlamydia — Rates of Reported Cases Among Women by State, United States and Outlying Areas, 2016



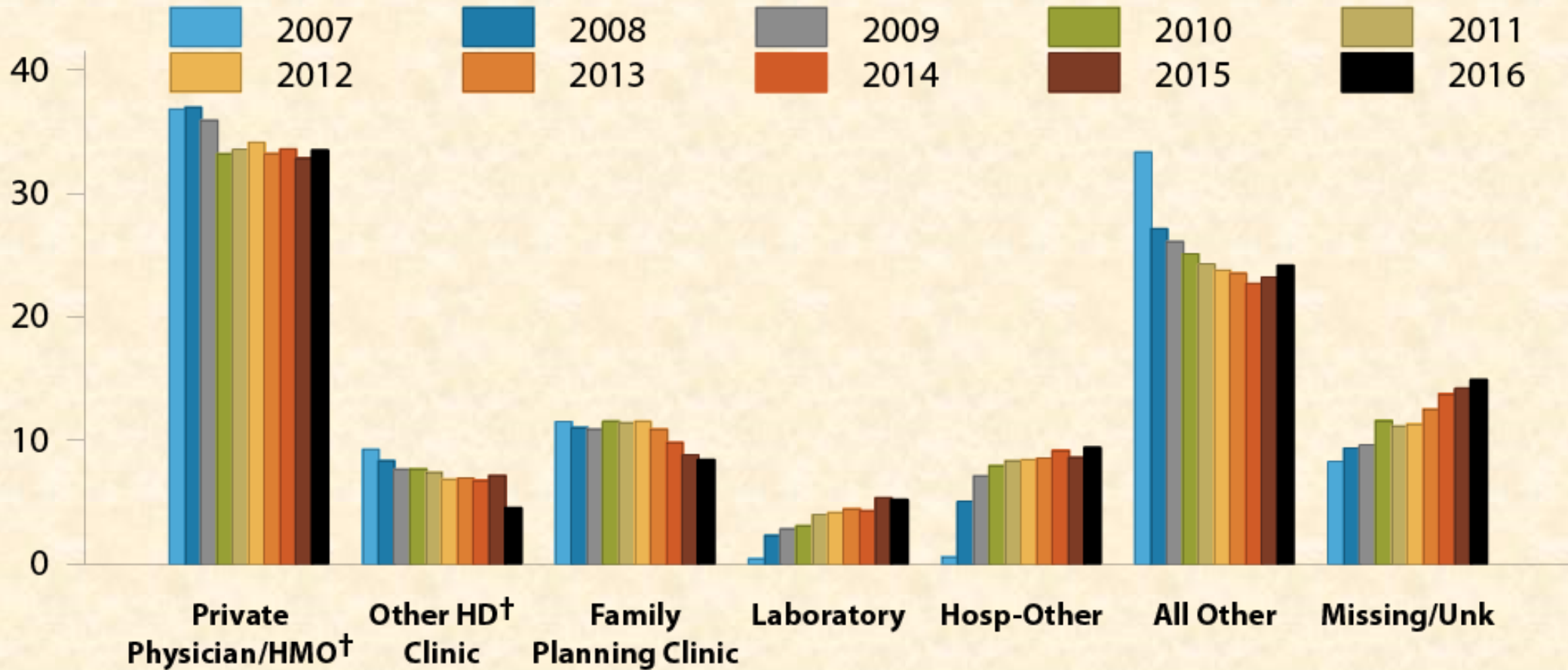
**NOTE:** The total rate of reported cases of chlamydia among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 653.6 per 100,000 females.

# Chlamydia — Rates of Reported Cases by Age Group and Sex, United States, 2016



# Chlamydia — Percentage of Reported Cases Among Women by Reporting Source\*, United States, 2007–2016

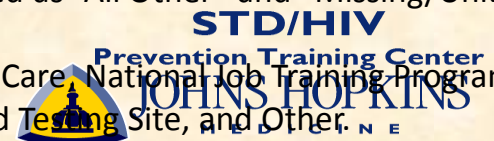
Percentage



\* Includes the top five reporting sources for chlamydia cases reported among women, plus those with reporting sources listed as “All Other” and “Missing/Unknown”.

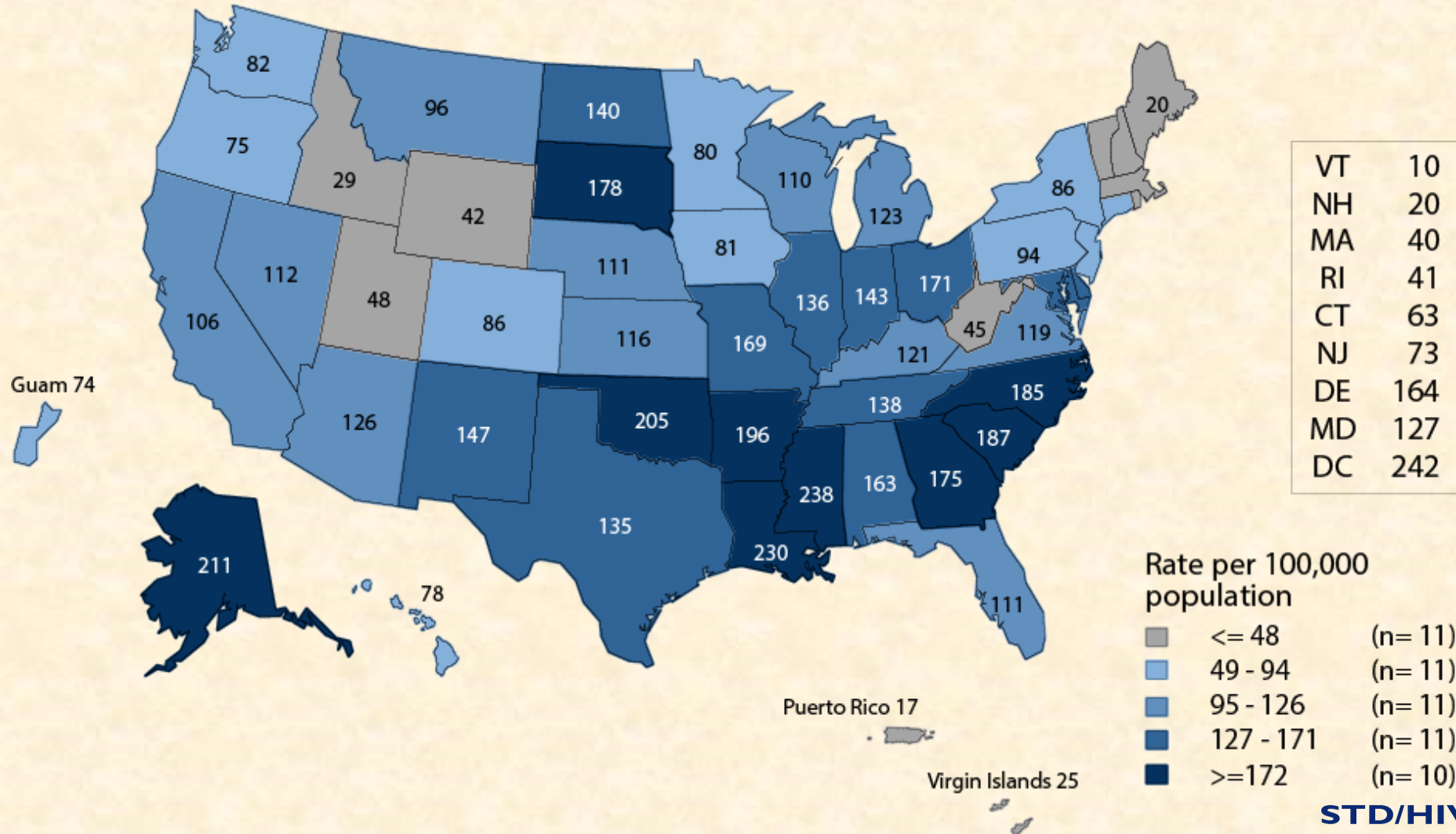
† HMO = health maintenance organization; HD = health department.

**NOTE:** All Other includes: Drug Treatment, Tuberculosis Clinic, Correctional Facility, Blood Bank, Labor and Delivery, Prenatal Care, National Job Training Program, School-based Clinic, Mental Health Provider, Indian Health Service, Military, Emergency Room, STD Clinic, HIV Counseling and Testing Site, and Other.



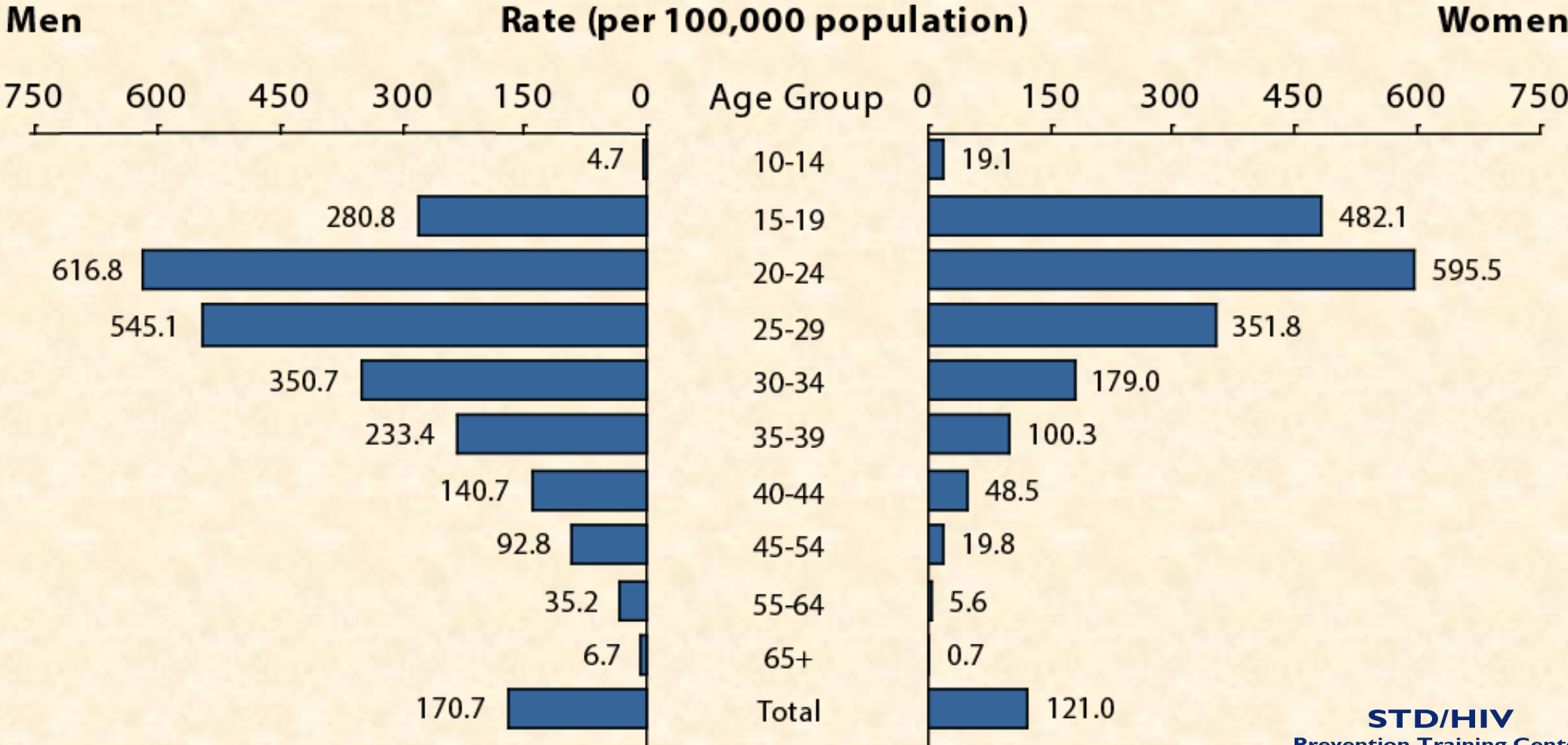


# Gonorrhea — Rates of Reported Cases Among Women by State, United States and Outlying Areas, 2016



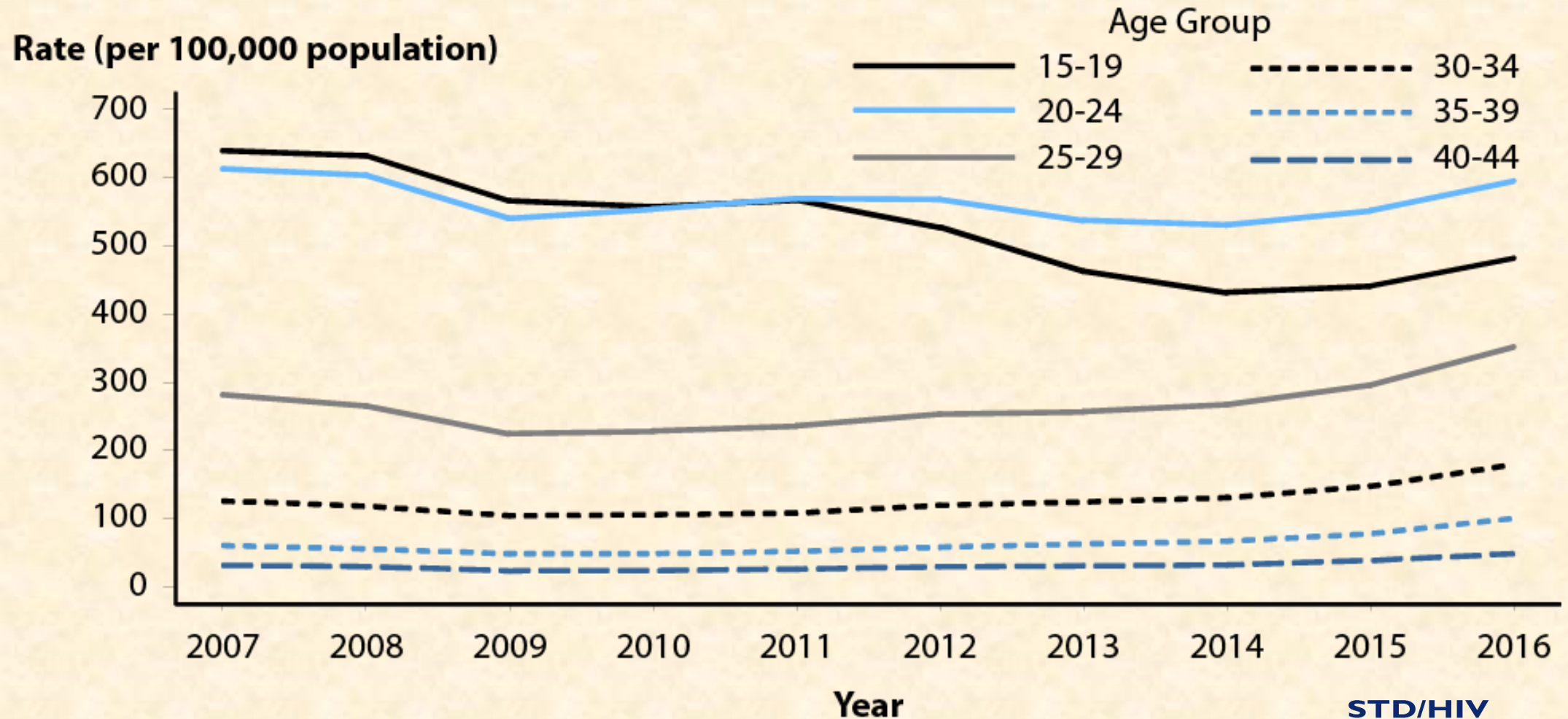
**NOTE:** The total rate of reported cases of gonorrhea among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 119.8 per 100,000 females.

# Gonorrhea — Rates of Reported Cases by Age Group and Sex, United States, 2016



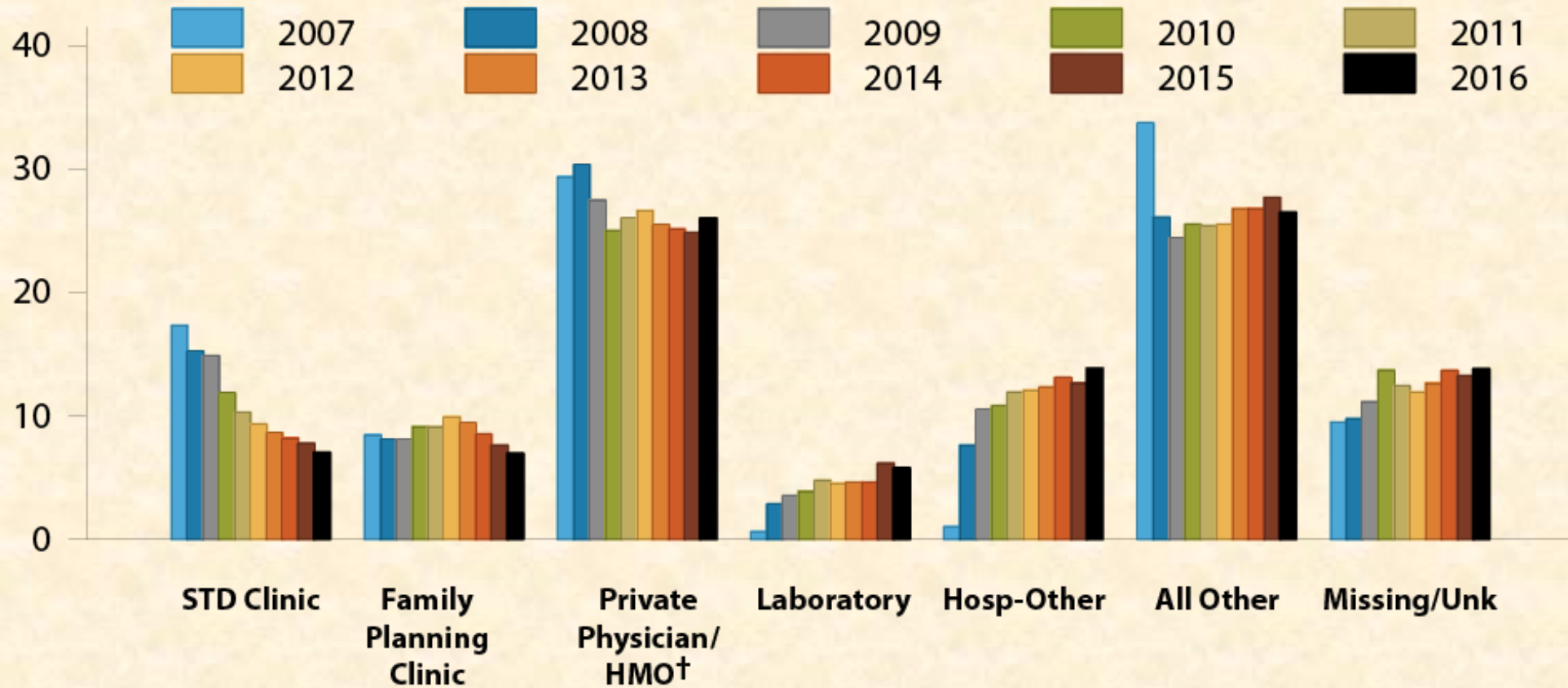


# Gonorrhea — Rates of Reported Cases Among Women Aged 15–44 Years by Age Group, United States, 2007–2016



# Gonorrhea — Percentage of Reported Cases Among Women by Reporting Source\*, United States, 2007-2016

Percentage

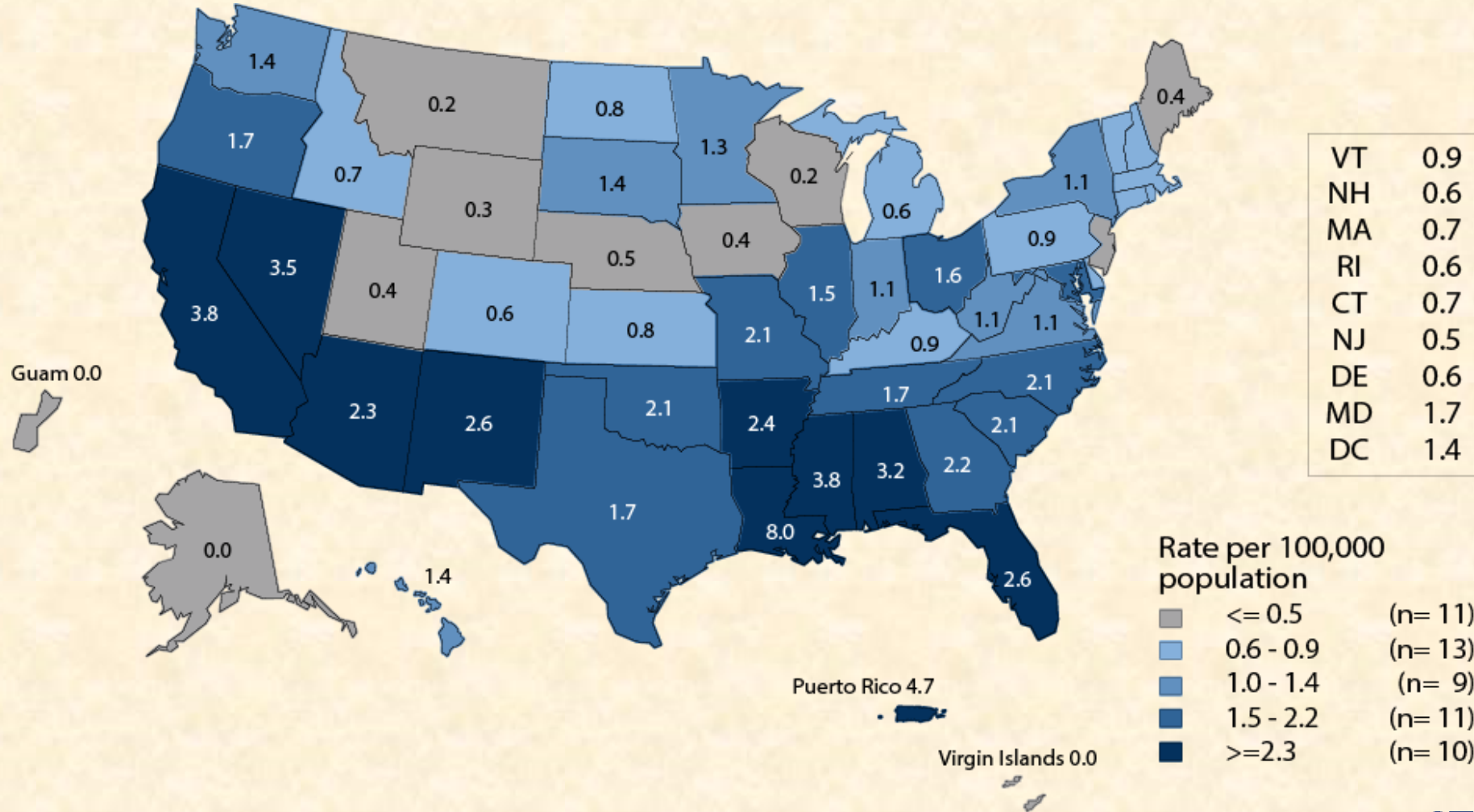


\* Includes the top five reporting sources for gonorrhea cases reported among women, plus those with reporting sources listed as “All Other” and “Missing/Unknown”.

† HMO = health maintenance organization.

**NOTE:** All Other includes: Drug Treatment, Tuberculosis Clinic, Correctional Facility, Blood Bank, Labor and Delivery, Prenatal Care, National Job Training Program, School-based Clinic, Mental Health Provider, Indian Health Service, Military, Emergency Room, Other Health Department Clinic, HIV Counseling and Testing Site, and Other.

# Primary and Secondary Syphilis — Rates of Reported Cases Among Women by State, United States and Outlying Areas, 2016

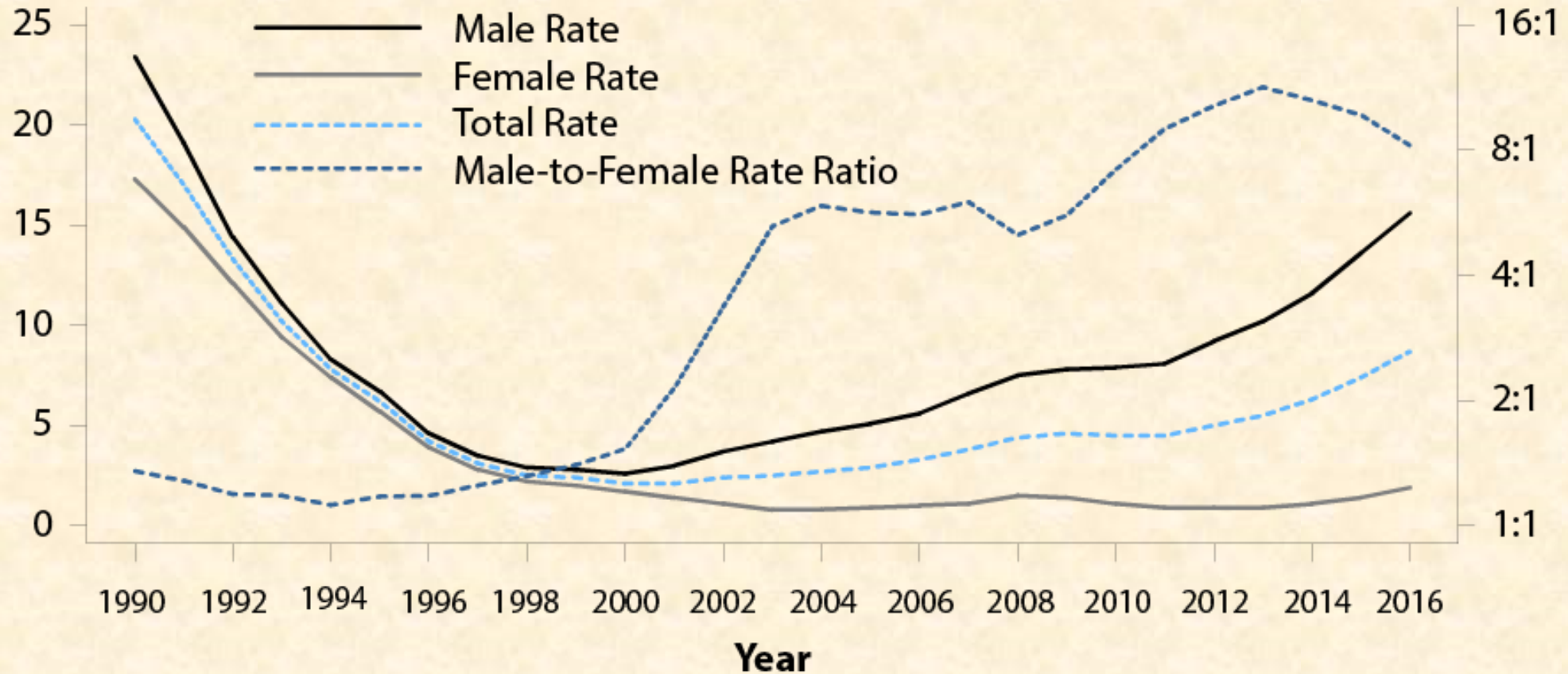


**NOTE:** The total rate of reported cases of primary and secondary syphilis among women in the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 1.9 per 100,000 females.

# Primary and Secondary Syphilis — Rates of Reported Cases by Sex and Male-to-Female Rate Ratios, United States, 1990–2016

Rate (per 100,000 population)

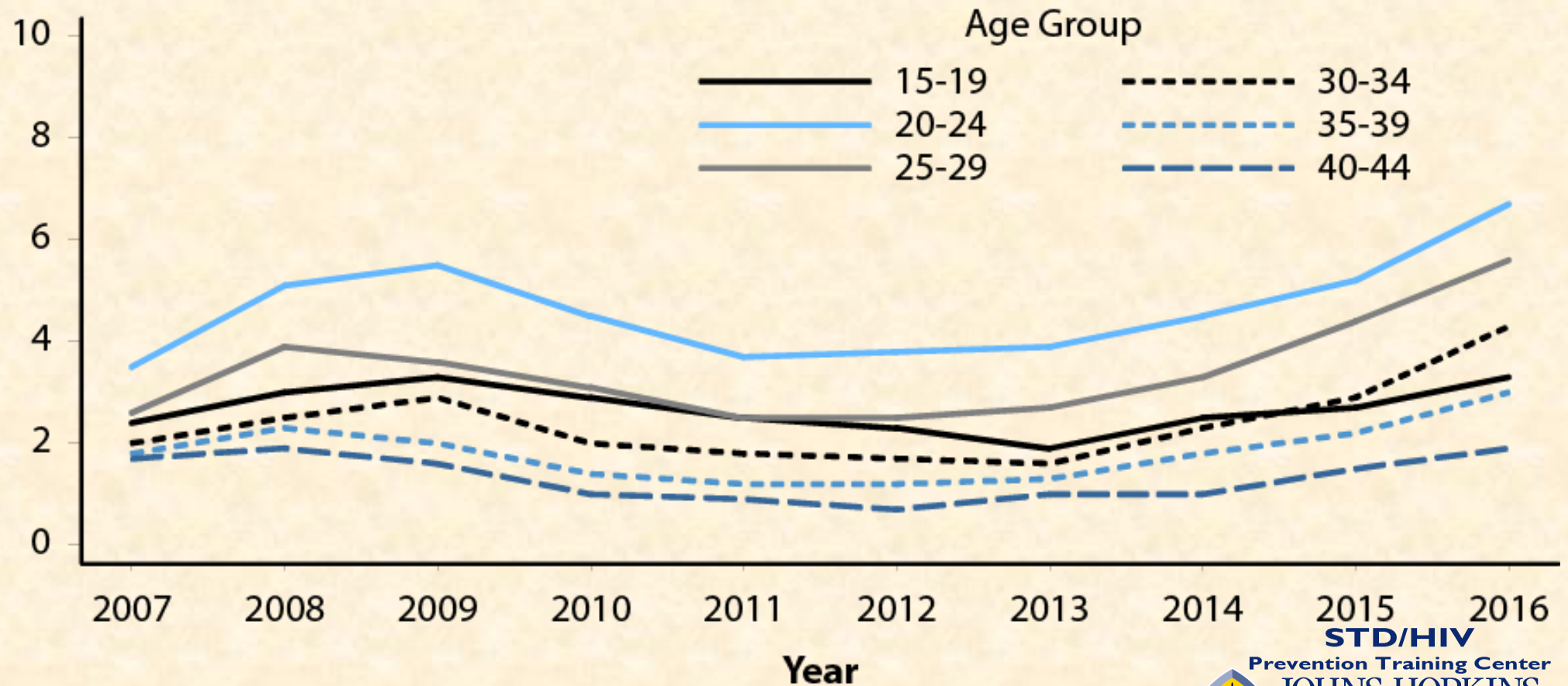
Rate Ratio (log scale)





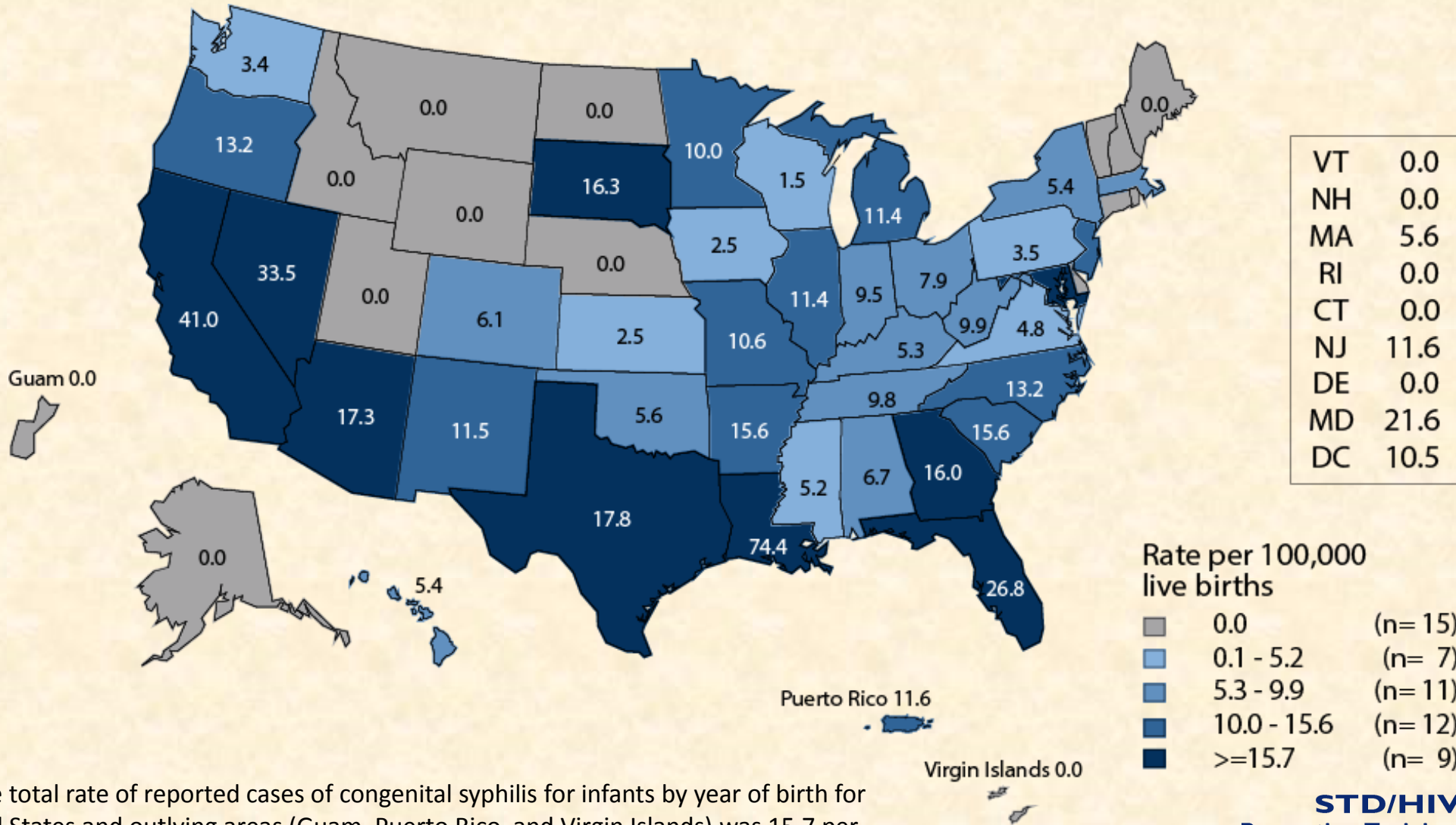
# Primary and Secondary Syphilis — Rates of Reported Cases Among Women Aged 15–44 Years by Age Group, United States, 2007–2016

Rate (per 100,000 population)





# Congenital Syphilis — Rates of Reported Cases Among Infants by Year of Birth and State, United States and Outlying Areas, 2016

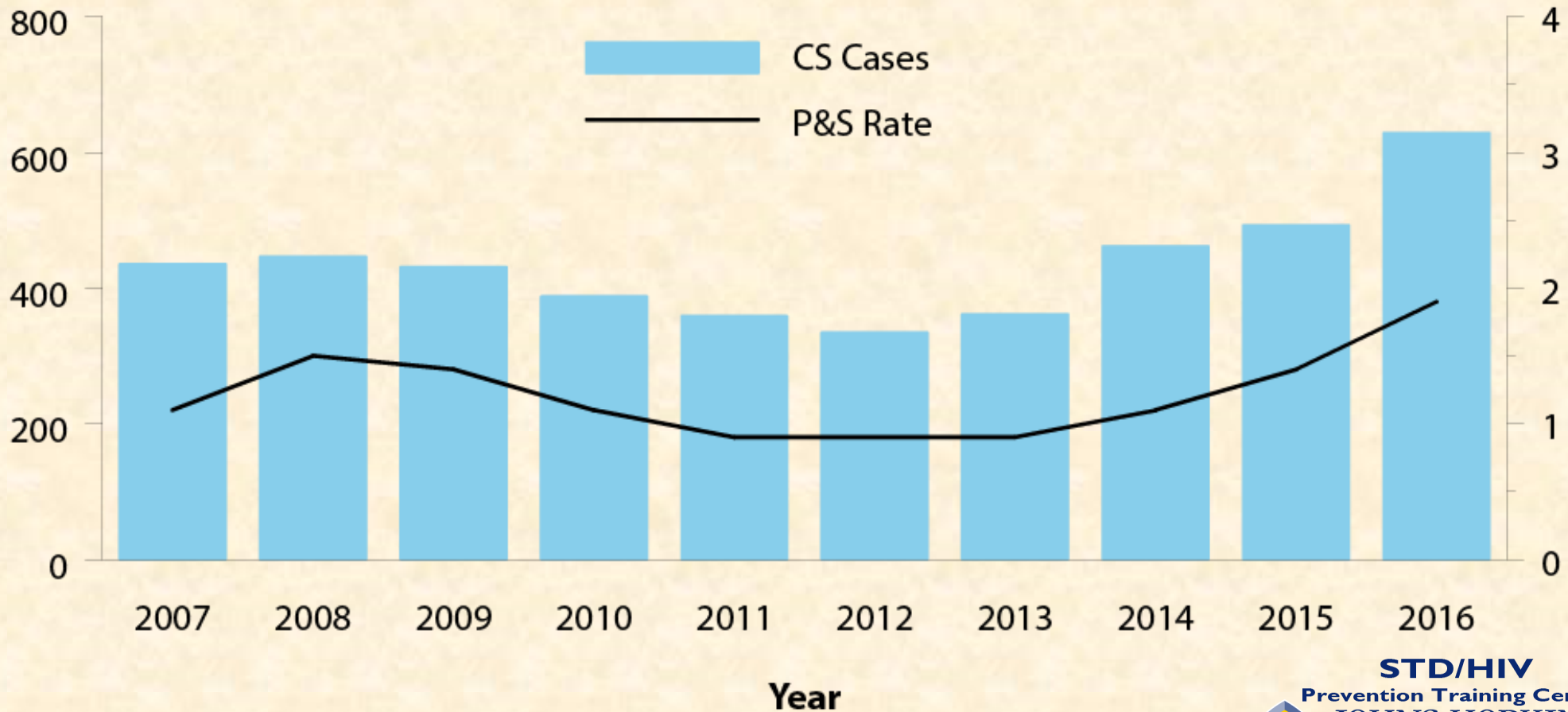


**NOTE:** The total rate of reported cases of congenital syphilis for infants by year of birth for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 15.7 per 100,000 live births.

# Congenital Syphilis — Reported Cases by Year of Birth and Rates of Reported Cases of Primary and Secondary Syphilis Among Women, United States, 2007–2016

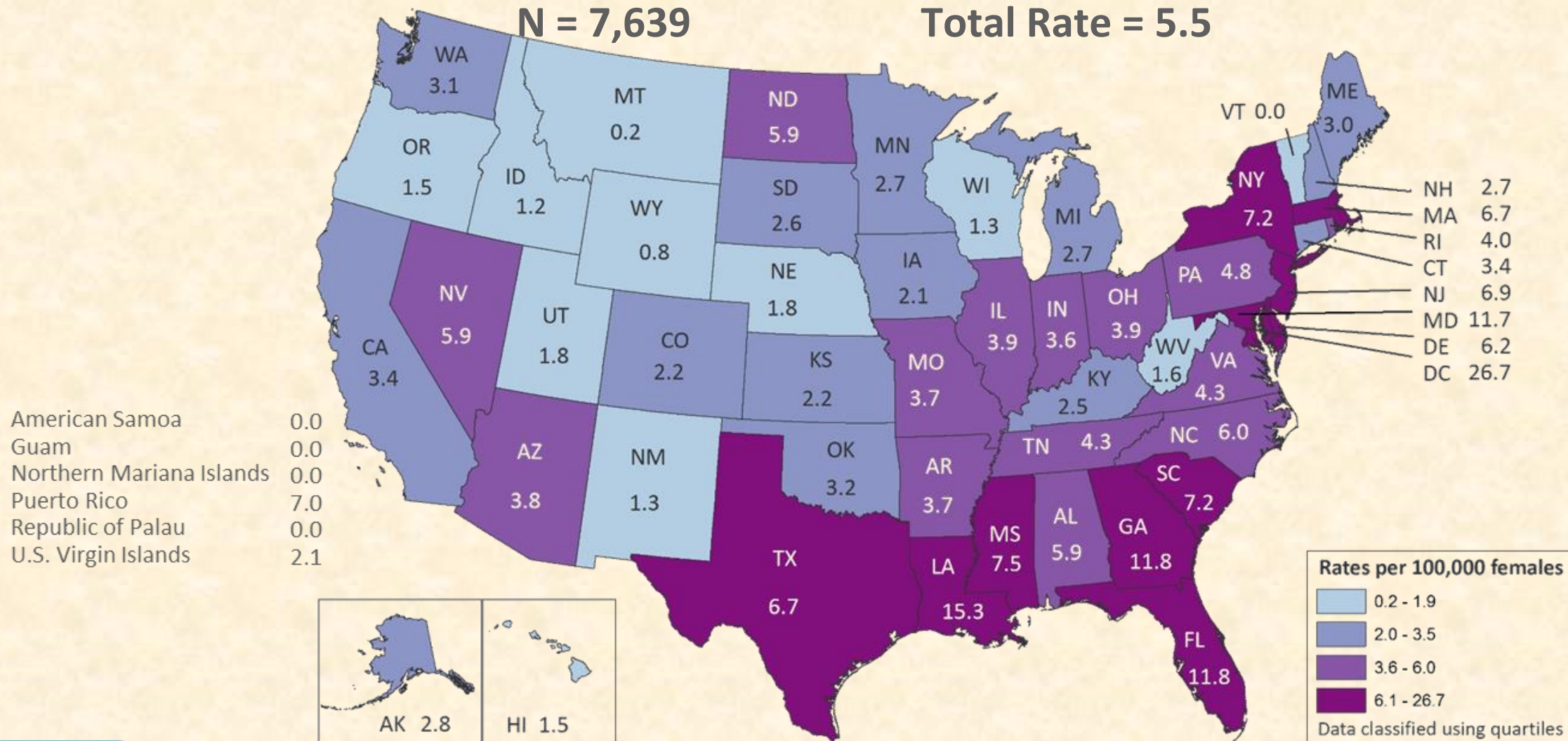
CS\* Cases

P&S\* Rate (per 100,000 women)



\* CS = Congenital syphilis; P&S = Primary and secondary syphilis.

# Rates of Diagnoses of HIV Infection among Female Adults and Adolescents 2016—United States and 6 Dependent Areas



Note. Data for the year 2016 are preliminary and based on 6 months reporting delay.





# Diagnoses of HIV Infection among Female Adults and Adolescents by Transmission Category and Age at Diagnosis 2016—United States and 6 Dependent Areas

Transmission category	Age group (years), %				
	13–19 N=264	20–24 N=737	25–34 N=2,133	35–44 N=1,805	≥45 N=2,700
Injection drug use	6.5	10.4	13.5	11.6	13.3
Heterosexual contact <sup>a</sup>	84.2	88.2	86.2	88.2	86.5
Other <sup>b</sup>	9.4	1.4	0.3	0.1	0.2
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

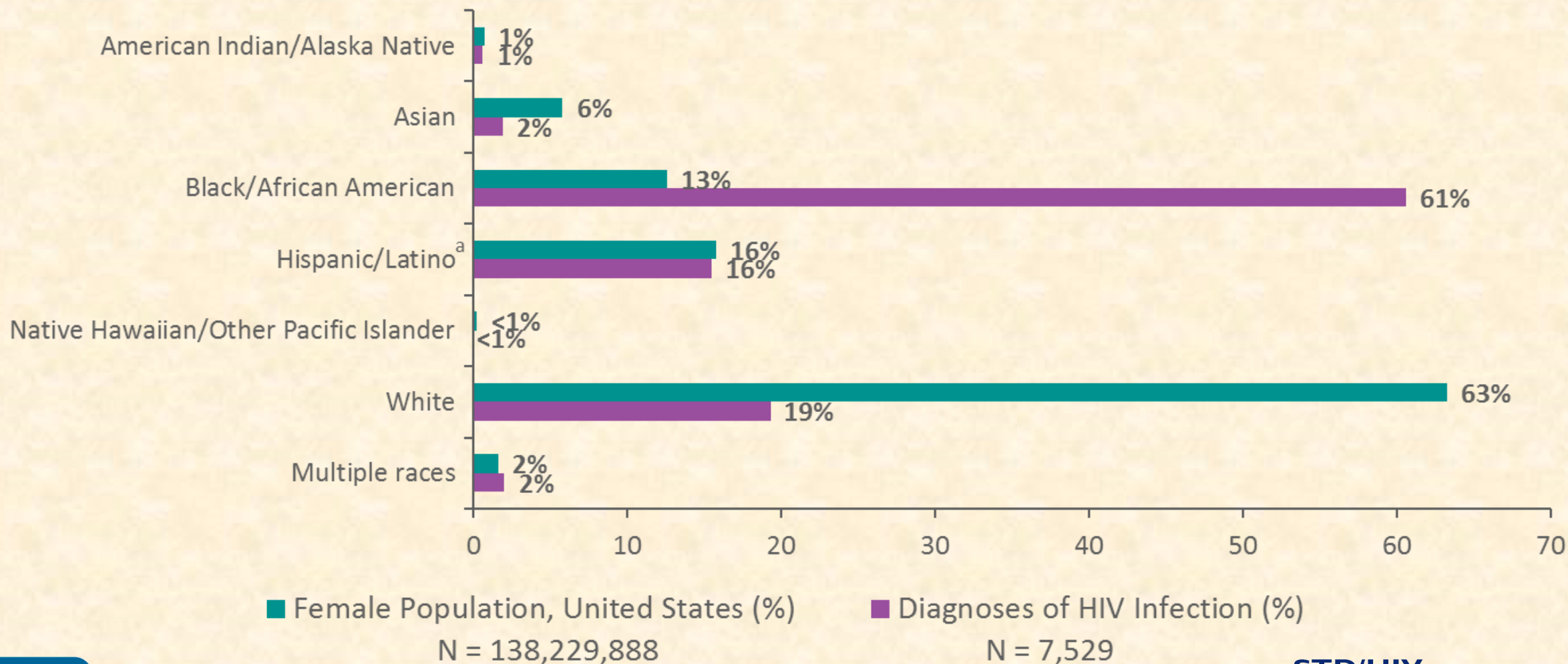
*Note.* Data for the year 2016 are preliminary and based on 6 months reporting delay. Data have been statistically adjusted to account for missing transmission category.

<sup>a</sup> Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

<sup>b</sup> Includes blood transfusion, perinatal exposure, and risk factor not reported or not identified.



# Diagnoses of HIV Infection and Population among Female Adults and Adolescents, by Race/Ethnicity, 2016—United States



Note. Data for the year 2016 are preliminary and based on 6 months reporting delay.  
<sup>a</sup> Hispanics/Latinos can be of any race.





# Deaths of Female Adults and Adolescents with Diagnosed HIV Infection by Race/Ethnicity, 2015—United States

Race/ethnicity	No.	Rate	%
American Indian/Alaska Native	17	1.7	0.4
Asian <sup>a</sup>	6	0.1	0.2
Black/African American	2,335	13.5	61.2
Hispanic/Latino <sup>b</sup>	501	2.4	13.1
Native Hawaiian/other Pacific Islander	0	0	0.0
White	724	0.8	19.0
Multiple races	233	10.6	6.1
<b>Total</b>	<b>3,816</b>	<b>2.8</b>	<b>100</b>

Note. Deaths of persons with diagnosed HIV infection may be due to any cause. Rates are per 100,000 population.

<sup>a</sup> Includes Asian/Pacific Islander legacy cases.







<sup>b</sup> Hispanics/Latinos can be of any race.



# Creating Your Own Sexual Health Protocol

## Sexual Health Protocol At-A-Glance

Culturally Competent Staff & LGBT-friendly Environment

	Comprehensive sexual history	Mental health assessment and referrals	Counseling about condoms, lubrication, enemas, and douches	Discussion about sexual satisfaction and pleasure
	Visual exam to check for signs of HPV, syphilis, or other STDs			
	Urethral swab or urine-based chlamydia and gonorrhea screening	Rectal and pharyngeal chlamydia and gonorrhea screening		
	Syphilis screening	HIV screening	Hepatitis C screening	
	Hepatitis A vaccine	Hepatitis B vaccine	HPV vaccine	
	Post-exposure prophylaxis, as indicated	Pre-exposure prophylaxis, as indicated	Expedited Partner Therapy for chlamydia or gonorrhea infection	

From MSM Sexual Health Standards of Care: Addressing the Sexual Health Crisis among Gay, Bisexual, and Other Men who have Sex with Men (MSM). NCSDD, NASTAD, NNPTC.  
<http://www.ncsddc.org/resource/msm-sexual-health-standards-of-care/>

## Recommended Preventive Sexual Health Services for Adults

Service	Females			Males			Transgender Individuals
	18-64	65+	Pregnant	18-64	65+	MSM	
STI Counseling	✓ <sup>a</sup>	✓ <sup>a</sup>	✓ <sup>a</sup>	✓ <sup>a</sup>	✓ <sup>a</sup>	✓ <sup>a</sup>	✓ <sup>a</sup>
Contraceptive Counseling	✓		✓	✓	✓		✓
Cervical Cancer Screening	✓ <sup>b</sup>	✓ <sup>b</sup>	✓ <sup>b</sup>				✓ <sup>c</sup>
Chlamydia Screening	✓ <sup>d</sup>	✓ <sup>d</sup>	✓ <sup>d</sup>	✓ <sup>e</sup>		✓ <sup>f</sup>	✓ <sup>a</sup>
Gonorrhea Screening	✓ <sup>d</sup>	✓ <sup>d</sup>	✓ <sup>d</sup>			✓ <sup>g</sup>	✓ <sup>a</sup>
HIV Testing	✓	✓ <sup>a</sup>	✓	✓	✓ <sup>a</sup>	✓	✓
Syphilis Screening	✓ <sup>h</sup>	✓ <sup>h</sup>	✓	✓ <sup>h</sup>	✓ <sup>h</sup>	✓	✓ <sup>h</sup>
Hepatitis B Screening	✓ <sup>i</sup>	✓ <sup>i</sup>	✓	✓ <sup>i</sup>	✓ <sup>i</sup>	✓	✓ <sup>i</sup>
Hepatitis C Screening	✓ <sup>jk</sup>	✓ <sup>jk</sup>	✓ <sup>j</sup>	✓ <sup>jk</sup>	✓ <sup>jk</sup>	✓ <sup>jk</sup>	✓ <sup>jk</sup>
Hepatitis A Vaccine	✓ <sup>l</sup>	✓ <sup>l</sup>	✓ <sup>l</sup>	✓ <sup>l</sup>	✓ <sup>l</sup>	✓	✓ <sup>l</sup>
Hepatitis B Vaccine	✓ <sup>m</sup>	✓ <sup>m</sup>	✓ <sup>m</sup>	✓ <sup>m</sup>	✓ <sup>m</sup>	✓	✓ <sup>m</sup>
HPV Vaccine	✓ <sup>n</sup>			✓ <sup>n</sup>		✓ <sup>n</sup>	✓ <sup>n</sup>

**a** = At increased risk: inconsistent condom use, multiple partners, partner with concurrent partners, current STI, or history of STI within a year

**b** = Aged 21 to 65 or when adequate screening history has been established

**c** = FTM transgender patients who still have a cervix according to guidelines for non-transgender women

**d** = Sexually-active women aged <25; women aged ≥25 at increased risk

**e** = Young adult males in high prevalence communities or settings

**f** = Screen for urethral infection if insertive anal sex in preceding year; rectal infection if receptive anal sex in preceding year

**g** = Screen for urethral infection if insertive anal sex in preceding year; rectal infection if receptive anal sex in preceding year; pharyngeal infection if receptive oral sex in preceding year

**h** = HIV-positive; at increased risk: exchange sex for drugs or money; in high prevalence communities

**i** = At risk: HIV-positive, unprotected sex, share needles, family member or sexual partner infected with HBV; born in a HBV-endemic country; born to parents from a HBV-endemic country

**j** = HIV-positive, history of injection or intranasal drug use or incarceration; blood transfusion prior to 1992

**k** = Born between 1945 and 1965 (at least once)

**l** = Use illicit drugs; have chronic liver disease; receive clotting factors; travel to HAV-endemic countries; wish to be vaccinated

**m** = At risk: multiple partners, share needles, family member or sexual partner infected with HBV

**n** = Young adult women and men aged ≤26

For more information, visit: [nationalcoalitionforsexualhealth.org](http://nationalcoalitionforsexualhealth.org)

## Recommended Preventive Sexual Health Services for Adolescents

Service	Females (Aged 13-17)	Males (Aged 13-17)
STI Counseling	✓ <sup>a</sup>	✓ <sup>a</sup>
Contraceptive Counseling	✓	✓
Cervical Cancer Screening		
Chlamydia Screening	✓ <sup>b</sup>	✓ <sup>c</sup>
Gonorrhea Screening	✓ <sup>b</sup>	✓ <sup>d</sup>
HIV Testing	✓	✓
Syphilis Screening	✓ <sup>e</sup>	✓ <sup>e</sup>
Hepatitis B Screening	✓ <sup>f</sup>	✓ <sup>f</sup>
Hepatitis C Screening	✓ <sup>g</sup>	✓ <sup>g</sup>
Hepatitis A Vaccine	✓	✓
Hepatitis B Vaccine	✓	✓
HPV Vaccine	✓	✓

### If the Adolescent Identifies as Lesbian, Gay, Bisexual, Transgender, Questioning (LGBTQ)

- ✓ Ask whether they have a trusted adult to talk to.
- ✓ Assess safety at home and school and whether they are being bullied or harassed.
- ✓ Link your patient to community or national organizations such as [pflag.org](http://pflag.org) or [thetrevorproject.org](http://thetrevorproject.org) for education and support.
- ✓ Counsel about using condoms and contraception. Adolescents who identify as lesbian or gay may also have sex with members of the opposite sex, which increases the risk for unintended pregnancy.

**a** = All sexually-active adolescents

**b** = Sexually-active women aged  $\leq 24$ ; women aged  $\geq 25$  at increased risk

**c** = Consider screening young adult males in high prevalence communities or settings

**d** = At least annually for sexually-active MSM at sites of contact

**e** = HIV-positive; at increased risk: exchange sex for drugs or money; in high prevalence communities

**f** = At risk: unprotected sex, had a prior STI, share needles, family member or sexual partner infected with HBV; born in a HBV-endemic country; born to parents from a HBV-endemic country

**g** = At risk: past/current injection or intranasal drug use, long-term hemodialysis, born to mother with Hepatitis C, unregulated tattoo

For more information, visit: [nationalcoalitionforsexualhealth.org](http://nationalcoalitionforsexualhealth.org)

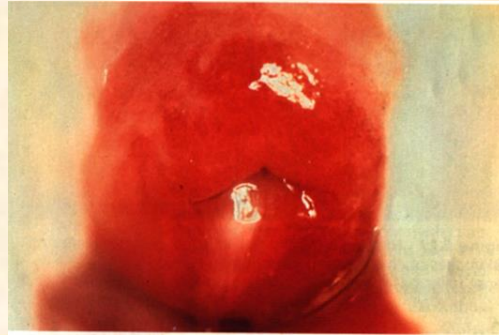


# Sexual Health Protocol: History

- Partners
- Practices
- Protection from STIs
- Past history of STIs
- Prevention of pregnancy
- And, a bonus “P”: PLEASURE

# STI Screening: Physical exam

- Visual inspection: Skin and mucous membranes [rashes, lesions, warts]
- Is discharge present? Note location [urethral, vaginal, cervical, rectal] and consistency [purulent, clear, “cottage cheese”, frothy, etc]
- For ASYMPTOMATIC screening: consider “express testing” for self collection of swabs



# CDC Screening Guidelines: Chlamydia

## Women

- Sexually active women under 25 years of age<sup>1</sup>
- Sexually active women aged 25 years and older if at increased risk<sup>2</sup>
- Retest approximately 3 months after treatment<sup>3</sup>

## Pregnant Women

- All pregnant women under 25 years of age<sup>1</sup>
- Pregnant women, aged 25 and older if at increased risk<sup>2</sup>
- Retest during the 3rd trimester for women under 25 years of age or at risk<sup>3,4</sup>
- Pregnant women with chlamydial infection should have a test-of-cure 3-4 weeks after treatment and be retested within 3 months<sup>1</sup>

## Men

- \*Consider screening young men in high prevalence clinical settings<sup>5</sup> or in populations with high burden of infection (e.g. MSM)<sup>6</sup>

## Men Who have Sex With Men (MSM)

- At least annually for sexually active MSM at sites of contact (urethra, rectum) regardless of condom use<sup>6</sup>
- Every 3 to 6 months if at increased risk<sup>7</sup>

## Persons with HIV

- For sexually active individuals, screen at first HIV evaluation, and at least annually thereafter<sup>8</sup>
- More frequent screening for might be appropriate depending on individual risk behaviors and the local epidemiology<sup>8</sup>



# CDC Screening Guidelines: Gonorrhea

- Women**
- Sexually active women under 25 years of age<sup>1</sup>
  - Sexually active women age 25 years and older if at increased risk<sup>9</sup>
  - Retest 3 months after treatment<sup>10</sup>
- Pregnant Women**
- All pregnant women under 25 years of age and older women if at increased risk<sup>11</sup>
  - Retest 3 months after treatment<sup>10</sup>
- Men Who have Sex With Men (MSM)**
- At least annually for sexually active MSM at sites of contact (urethra, rectum, pharynx) regardless of condom use<sup>10</sup>
  - Every 3 to 6 months if at increased risk<sup>7</sup>
- Persons with HIV**
- For sexually active individuals, screen at first HIV evaluation, and at least annually thereafter<sup>10</sup>
  - More frequent screening for might be appropriate depending on individual risk behaviors and the local epidemiology<sup>10</sup>

# Why do extragenital testing (GC and CT)?

- From July 2003 until February 2007, 441 rectal test sets were collected from individuals attending a sexually transmitted disease clinic and three HIV clinics who gave a history of anal intercourse or were women at high risk for *Neisseria gonorrhoeae* or *Chlamydia trachomatis* infections.
  - Over **60%** and **80%** of gonococcal and chlamydial infections, respectively, among men who have sex with men and over **20%** of chlamydial infections in women would have been missed if the rectal site had not been tested.\*
- Baltimore STD clinics: among women endorsing extragenital exposures, **30.3%** of GC infections and **13.8%** of CT infections would have been missed with urogenital-only testing.\*\*

\*Bachmann LH et al. J Clin Micro 2010:1827-1832; \*\*Trebach et al. STD 2015.



# CDC Screening Guidelines: Syphilis

- Pregnant Women**
- All pregnant women at the first prenatal visit<sup>11</sup>
  - Retest early in the third trimester and at delivery if at high risk<sup>12</sup>
- Men Who have Sex With Men (MSM)**
- At least annually for sexually active MSM<sup>13</sup>
  - Every 3 to 6 months if at increased risk<sup>7</sup>
- Persons with HIV**
- For sexually active individuals, screen at first HIV evaluation, and at least annually thereafter<sup>14,15,16</sup>
  - More frequent screening might be appropriate depending on individual risk behaviors and the local epidemiology<sup>13</sup>

# CDC Screening Guidelines: HIV

## **Women**

- All women aged 13-64 years (opt-out)\*\*<sup>18</sup>
- All women who seek evaluation and treatment for STDs<sup>19</sup>

## **Pregnant Women**

- All pregnant women should be screened at first prenatal visit (opt-out)<sup>20</sup>
- Retest in the third trimester if at high risk<sup>21</sup>

## **Men**

- All men aged 13-64 (opt-out)\*\*<sup>18</sup>
- All men who seek evaluation and treatment for STDs<sup>19</sup>

**Men Who have Sex With Men (MSM)** •At least annually for sexually active MSM if HIV status is unknown or negative and the patient himself or his sex partner(s) have had more than one sex partner since most recent HIV test<sup>22</sup>

# CDC guidelines: STIs and PrEP

	Men Who Have Sex with Men	Heterosexual Women and Men	Injection Drug Users
Detecting substantial risk of acquiring HIV infection	HIV-positive sexual partner Recent bacterial STI High number of sex partners History of inconsistent or no condom use Commercial sex work	HIV-positive sexual partner Recent bacterial STI High number of sex partners History of inconsistent or no condom use Commercial sex work  In high-prevalence area or network	HIV-positive injecting partner Sharing injection equipment Recent drug treatment (but currently injecting)
Clinically eligible	Documented negative HIV test result before prescribing PrEP No signs/symptoms of acute HIV infection Normal renal function; no contraindicated medications Documented hepatitis B virus infection and vaccination status		
Prescription	Daily, continuing, oral doses of TDF/FTC (Truvada), ≤90-day supply		
Other services	Follow-up visits at least every 3 months to provide the following: HIV test, medication adherence counseling, behavioral risk reduction support, side effect assessment, STI symptom assessment At 3 months and every 6 months thereafter, assess renal function Every 6 months, test for bacterial STIs		
	Do oral/rectal STI testing	Assess pregnancy intent Pregnancy test every 3 months	Access to clean needles/syringes and drug treatment services

- **Assess for STIs at baseline!**  
[http://www.cdc.gov/hiv/pdf/PrEP\\_fact\\_sheet\\_final.pdf](http://www.cdc.gov/hiv/pdf/PrEP_fact_sheet_final.pdf)
- **CDC guidelines: screen MSM for STIs every 3-6 mos if at increased risk.**
- “Bacterial STDs”= Gonorrhea, Chlamydia and Syphilis

## **In Summary:**

- Rates of STIs are at an all time high, **INCLUDING FOR WOMEN**
- Rates of HIV in women, particularly women of color, should not be discounted
- Advocate for, and implement, a sexual health protocol that includes comprehensive history, screening, treatment, and prevention

Thank you!

Barbara Wilgus, MSN, CRNP

410-550-6251

[bwegwei1@jhmi.edu](mailto:bwegwei1@jhmi.edu)