A Quality Improvement Initiative Addressing STI Services Provided in Rural South Carolina Primary Care Clinics

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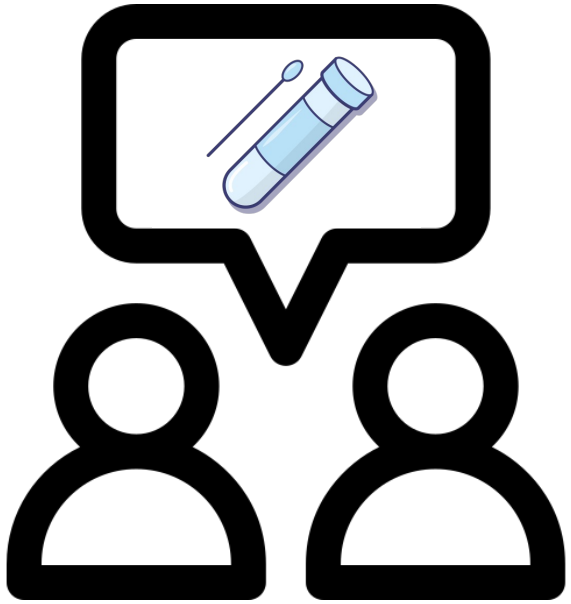


Disclosures

I receive research funding from NIH, HRSA, and ViiV Healthcare.

Mission

The mission of the Healthy Futures Lab at the University of South Carolina is to engage in innovative, community-engaged research to help people—particularly those from marginalized communities—to achieve optimal health and wellbeing. This lab is committed to engaging in anti-racist dialogue and actions; to advocating for equity for lesbian, gay, bisexual, and transgender (LGBT) individuals; and to recognizing and honoring the humanity of individuals from all creeds, religions, and nations. A major focus of our work is to improve outcomes for those living with or affected by human immunodeficiency virus (HIV)—and we are strongly committed to ending stigma associated with HIV and HIV criminalization.

Meet the faculty, staff, and students involved in Healthy Futures.

PEOPLE

Learn more about our current research projects.

RESEARCH

Stay updated on recent news involving our team.

NEWS

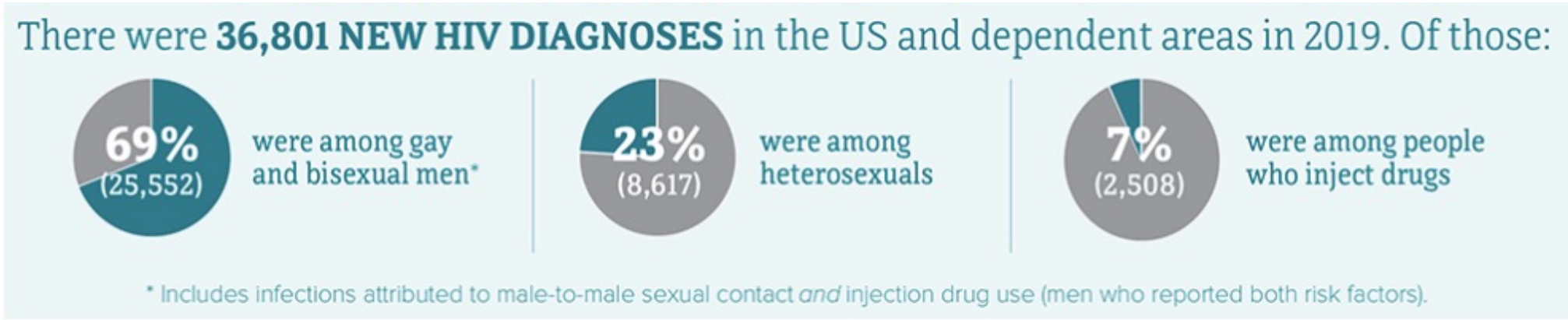
About me…

- Health psychologist
- Overcome “gaps” in prevention and treatment frameworks for infectious diseases (HIV, HPV, STIs, etc.)
- Director of ***Healthy Futures Lab*** http://www.healthyfutureslab.com
- Director of ***Supporting Substance Use Disorder Services in South Carolina (SSUDS-SC) Center***

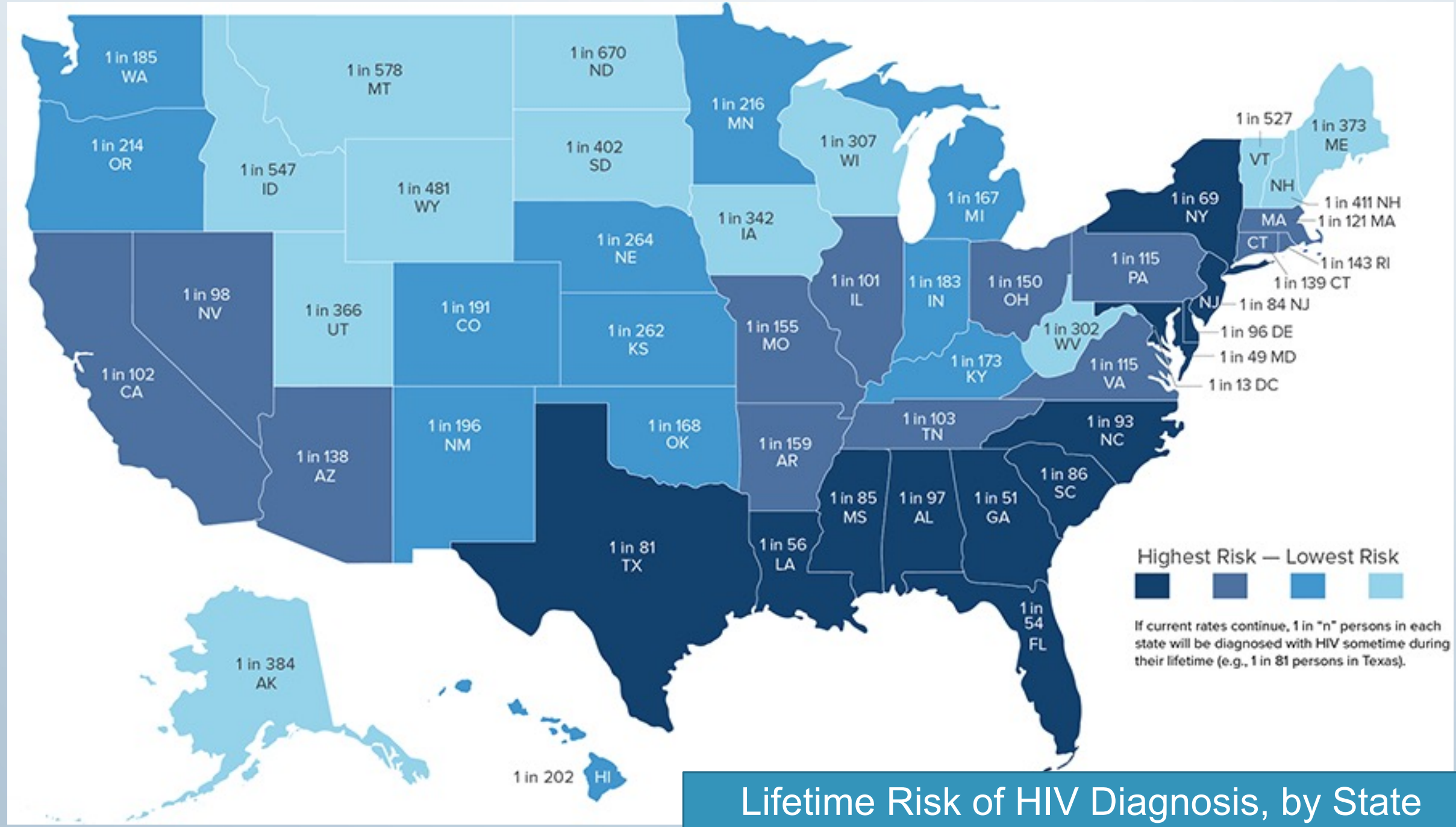
Objectives

- Review trends in HIV and STIs in South Carolina
- Learn best practices in HIV and STI testing, including recommendations for multi-site extragenital STI testing
- Review basics of Pre-exposure Prophylaxis (PrEP) for HIV prevention
- Understand barriers to HIV and STI prevention and treatment in rural communities
- Learn about a pilot project to increase extragenital STI testing among PrEP patients in rural communities in South Carolina

Current State of the US HIV Epidemic

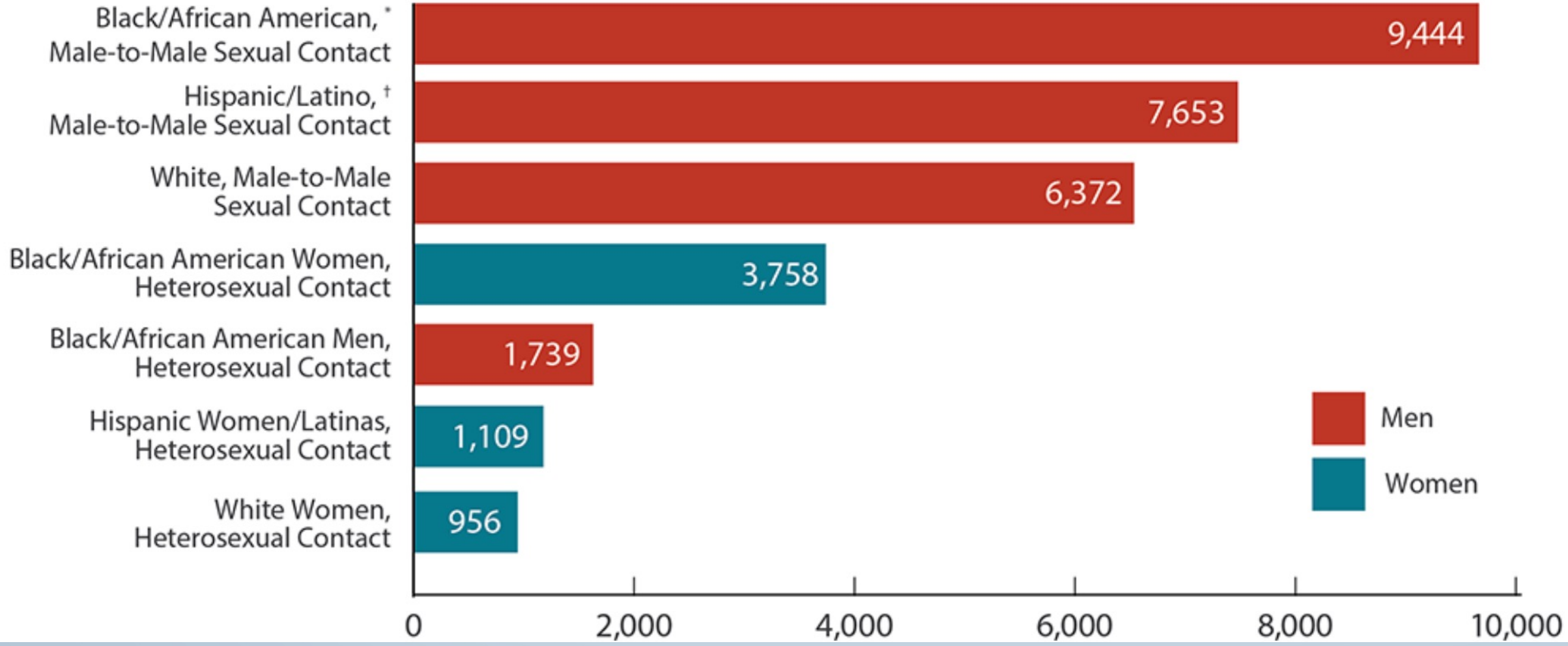


- ~1.2 million people in the US are living with HIV
- Around 15% of those are undiagnosed
- Annual number of new HIV infections has remained steady for many years ☹
- New infections have increased among some groups, including individuals from Hispanic and Latinx backgrounds



Lifetime Risk of HIV Diagnosis, by State

New HIV Diagnoses in the US and Dependent Areas for the Most-Affected Subpopulations, 2018



If current rates persist, **1 in 2 Black men who have sex with men** and **1 in 4 Latino men who have sex with men** in the US will be diagnosed with HIV during their lifetime.

-Centers for Disease Control & Prevention

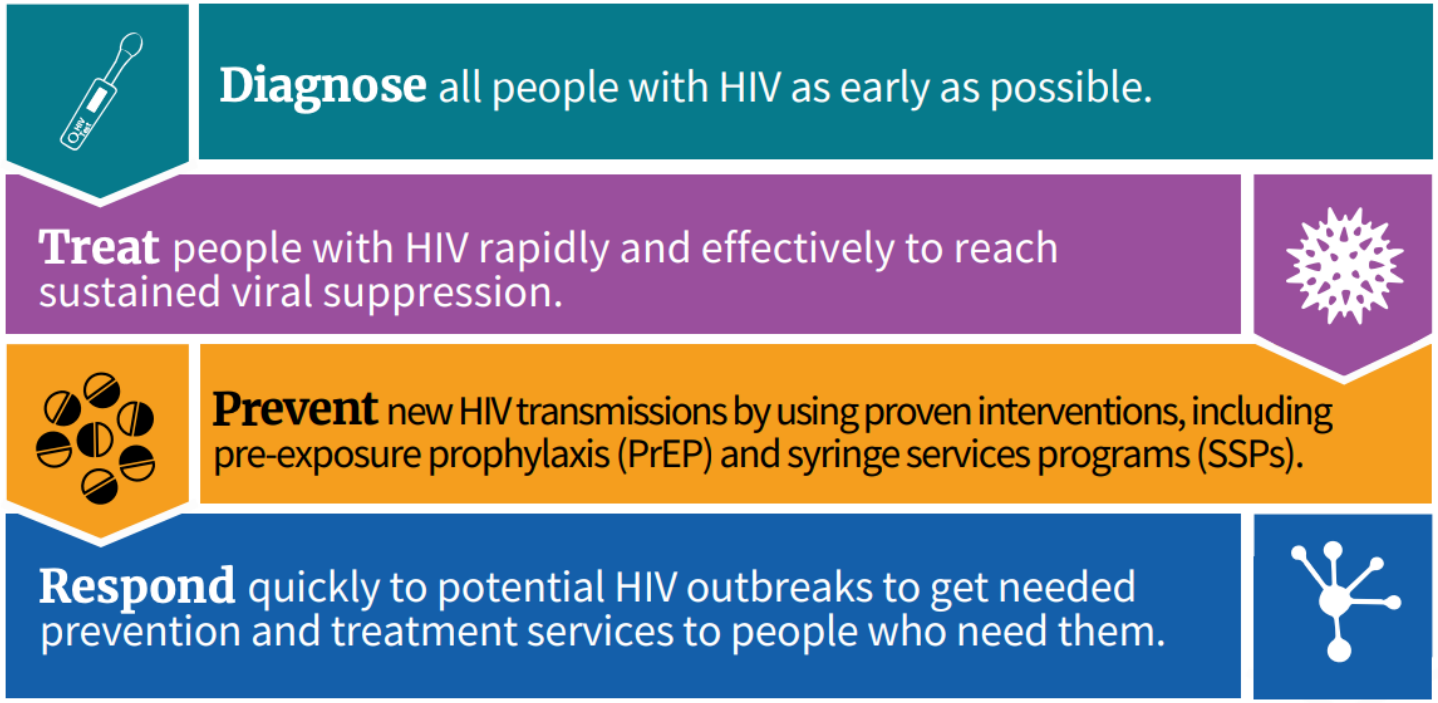
https://www.cdc.gov/nchhstp/newsroom/2016/croi-press-release-risk.html

Ending the HIV Epidemic: A Plan for the United States

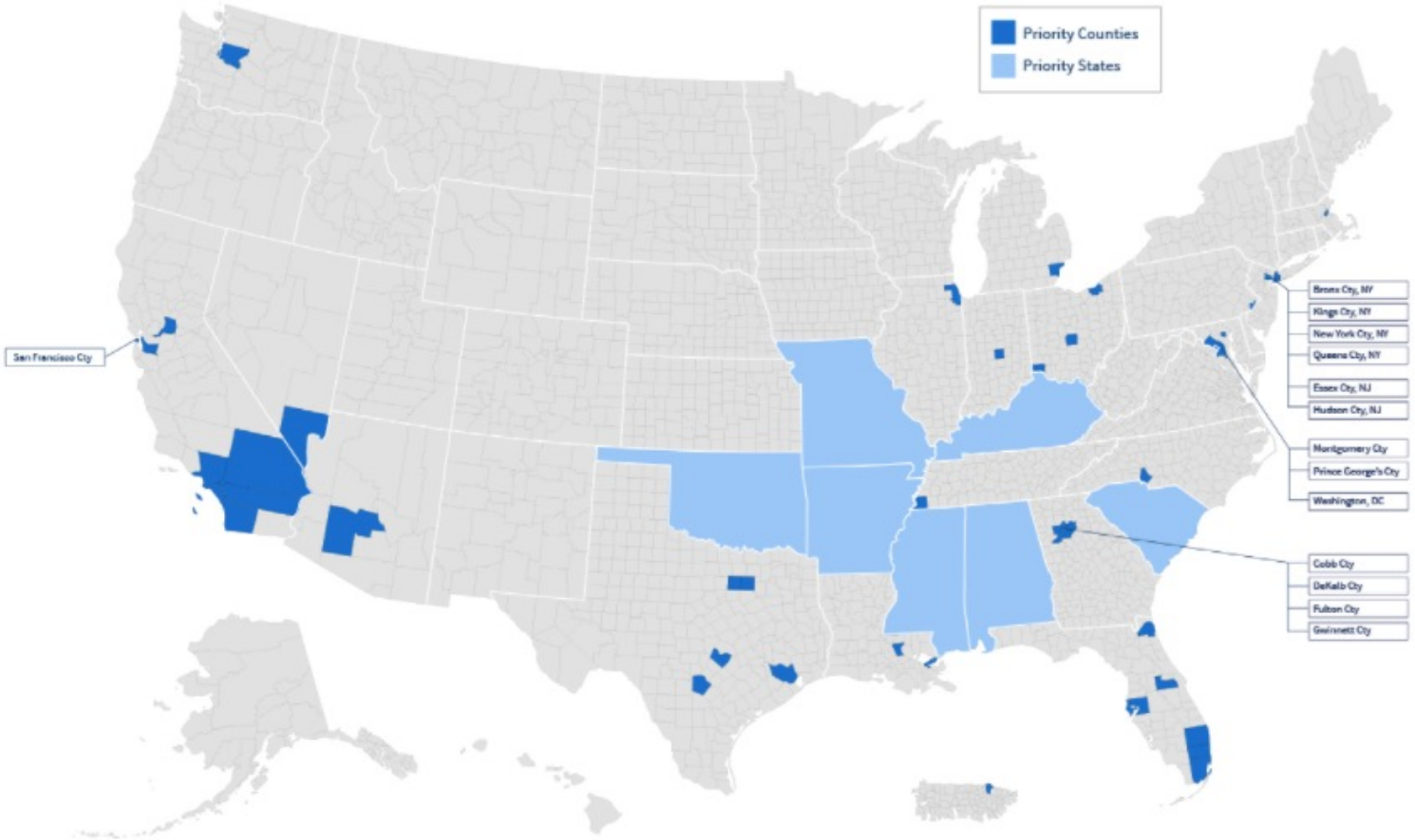
GOAL:

75% reduction in new HIV infections in 5 years and at least **90%** reduction in 10 years.

HHS will work with each community to establish local teams on the ground to tailor and implement strategies to:

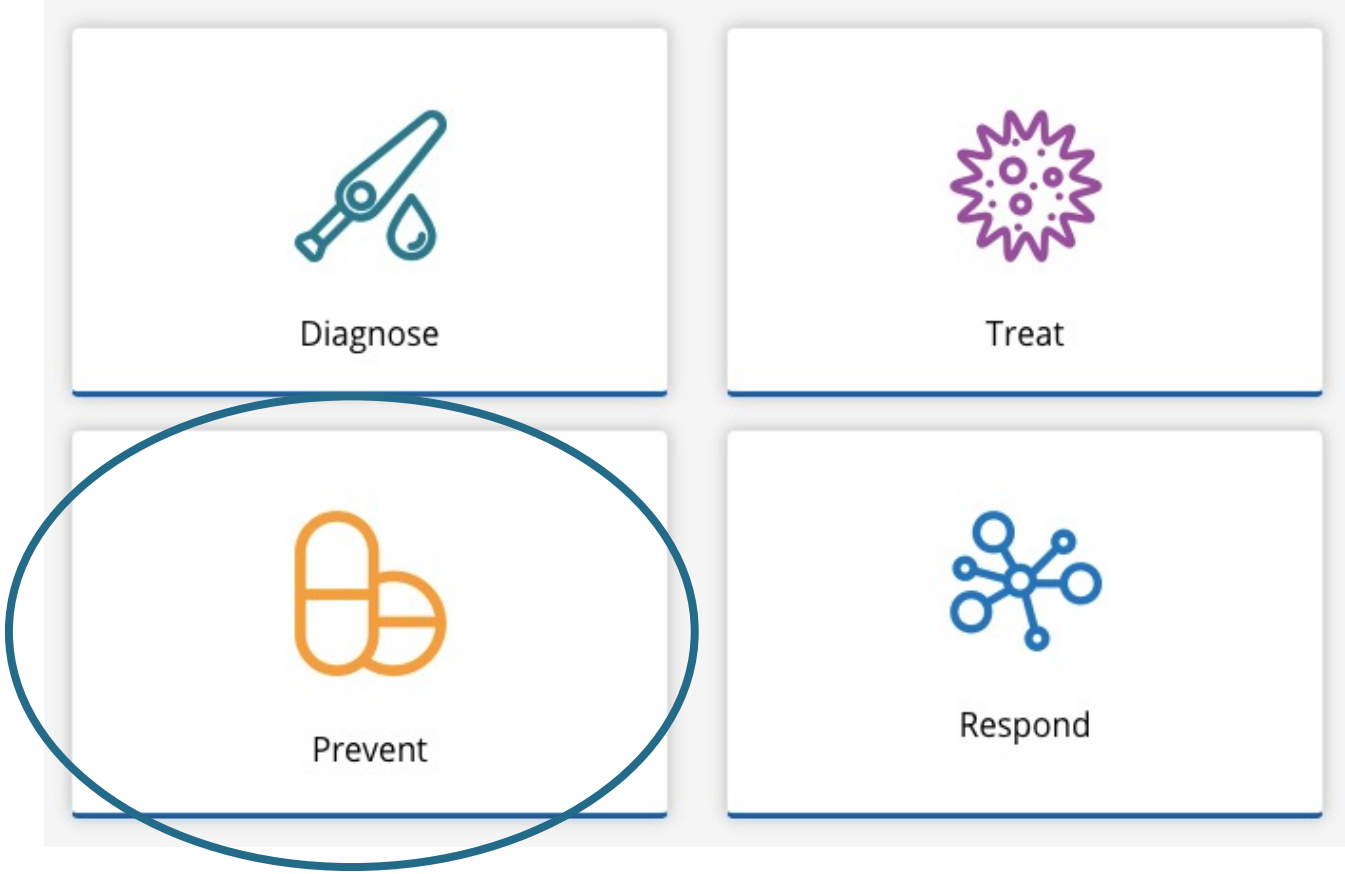


Ending the HIV Epidemic: Priority Jurisdictions

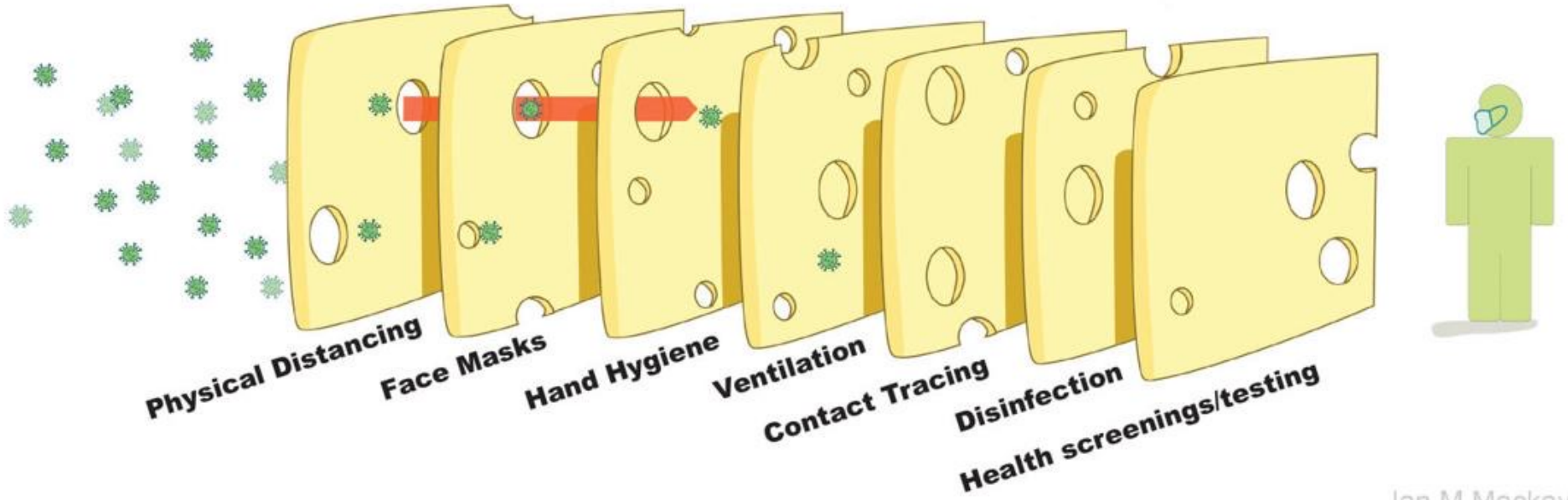


- **More than 50% of new HIV diagnoses** occur in only 48 counties, Washington, DC, and San Juan, Puerto Rico
- **Seven states have a substantial rural burden** – 10% or more of their diagnoses in rural areas

Ending the HIV Epidemic: Four Pillars

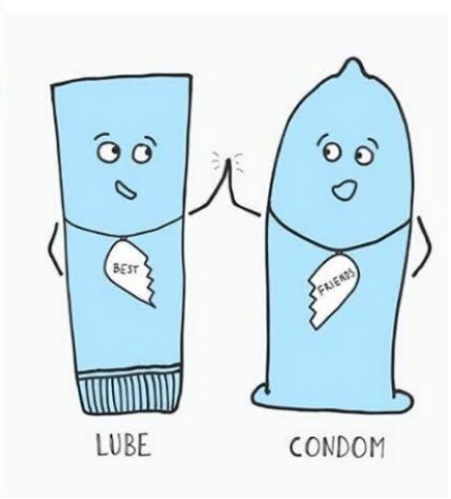


The Swiss Cheese Model of COVID-19 Defense



Ian M Mackay
virologydownunder.com
Derived from @sketchplanator
Based on the Swiss cheese model of accident causation, by james t Reason, 1990
version 1.3
update: 12oct2020

The Swiss Cheese Model of Ending the HIV Epidemic?



PrEP

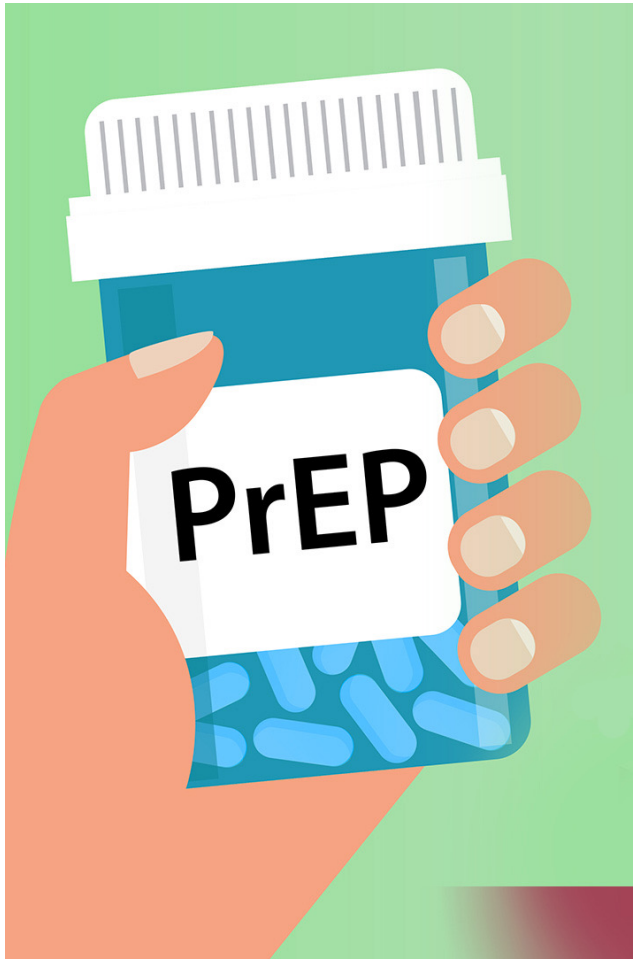

HEALTH AND SEX BELONG TOGETHER
Healthysexuals
DON'T RUSH
You've got prevention options. Find what fits.
VISIT
HEALTHYSEXUALS.COM
AND TALK TO A HEALTHCARE PROVIDER
GILEAD


Introducing
HONESTLY
A National TV Commercial
about HIV Prevention


HEALTH AND SEX BELONG TOGETHER
Healthysexuals
LOVE
SHARING
Talk about your sexual health. #NoFilter
VISIT
HEALTHYSEXUALS.COM
AND TALK TO A HEALTHCARE PROVIDER
GILEAD

Pre-Exposure Prophylaxis (PrEP): Critical Tool to End the HIV Epidemic

Emtracitabine + Tenofovir = Truvada® Descovy ®



- PrEP = A once-a-day pill taken to prevent HIV
- Initially approved in 2012
- PrEP reduces risk of acquiring HIV through sex by ~99% if taken daily
- 74% risk reduction for injection drug use
- Most effective when combined with other prevention tools
- Long-acting injectables are here now too! (Apretude®)

Who is a candidate for PrEP?

Clinicians should recommend PrEP for individuals, including adolescents, who meet any of the following characteristics:

- Engage in **condomless sex** with **partners of unknown HIV status**
- Have partners who may have **multiple or anonymous sex partners**
- Engage in **sex at parties** or other high-risk venues (or have partners who do)
- Are involved with **transactional sex** (or have partners who do)
- Have been diagnosed with ≥1 **bacterial STI** in past 12 months

Who is a candidate for PrEP?

Clinicians should recommend PrEP for individuals, including adolescents, who meet any of the following characteristics :

- Are **attempting to conceive with a partner who has HIV**
- Are at **ongoing risk of HIV during pregnancy** (e.g., through inconsistent condom use with unknown partners, have sexual partner with unsuppressed HIV)
- Report **injecting substances** (e.g., drugs, hormones, silicone) (or have partners who do)
- **Self-identify** as being at-risk without disclosing specific risk behaviors

Who is a candidate for PrEP?

← Use this code with your phone's QR code reader to go directly to a mobile-friendly version of the guideline.

This ¼-Folded Guide is a companion to the New York State Department of Health AIDS Institute guideline *PrEP to Prevent HIV and Promote Sexual Health*. The full guideline is available at www.hivguidelines.org.

SCAN THIS for an excellent clinical pocket guideline!

Truvada® vs Descovy®

TDF/FTC VERSUS TAF/FTC AS PrEP		
	TDF/FTC	**TAF/FTC**
Effectiveness	All populations.	Cisgender MSM and transgender women [a].
Renal safety	• Potential effect on renal tubular function. Meta-analysis shows good safety. • Discontinue if confirmed CrCl <50 mL/min.	• Improved renal biomarkers compared to TDF. • Can be used with stage 3 CKD (CrCl 30–59 mL/min).
Bone safety	Potential decrease in bone mineral density. Meta-analysis shows good safety.	Favorable bone biomarkers compared with TDF.
Weight	Weight neutral.	Mild weight gain observed in studies.
LDL cholesterol	Small decreases.	Small increases.
Dosing	Daily dosing is preferred. On-demand dosing is an option in cisgender MSM.	Daily dosing only.
Cost	Will go off patent in 2020.	Currently similar to TDF/FTC.
a. Transgender women made up only 1% of the DISCOVER study population.		

Long-acting Injectables for PrEP

2021 CDC Guidelines for PrEP

Drug(s)	Brand name	Mode of administration	Dose	Frequency
Emtricitabine/tenofovir disoproxil fumarate (F/TDF)[a]	Truvada	Oral tablet	200 mg/ 300 mg	Once per day
Emtricitabine/tenofovir alafenamide (F/TAF)	Descovy	Oral tablet	200 mg/ 25 mg	Once per day
Cabotegravir	Apretude	Intramuscular injection	600 mg	Once every 2 months[b]

https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2021.pdf

- Cabotegravir is a **long-acting integrase inhibitor** from ViiV
- Approved for **cisgender and transgender men and women** with no limitations based on type of sex they have
- Receive 2 intramuscular injections in the buttocks administered 1 month apart, and then every 2 months afterwards
- Every-other-month injections can be given within a **seven-day window** before or after the scheduled dose
- If a person misses an injection by more than a week, they can substitute daily cabotegravir pills for up to two months

PrEP Care System: Screening, Initiation, Follow-Up

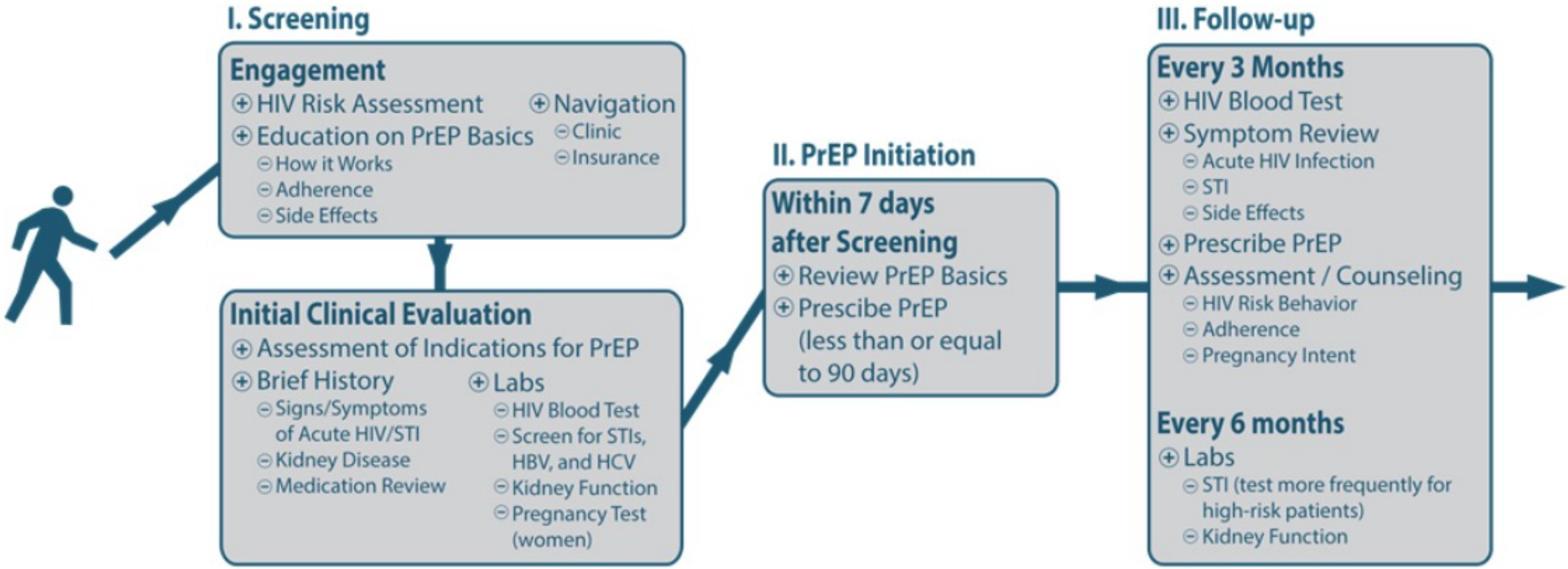


Image from https://www.cdc.gov/hiv/effective-interventions/prevent/prep/index.html

Q = How are we doing with getting PrEP to all of those groups?
A = **NOT GOOD**!

- 2015 – CDC estimated that ~1.5 million adults had indications for PrEP use
- PrEP use was *slightly* higher in 2018 when compared to 2012
  - Very low uptake in the South, including South Carolina
- Recent national survey among young Black men who have sex with men:
  - 78% reported they felt they were likely to be infected with HIV
  - 39% had heard of PrEP
  - Only 8% reported having ever taken PrEP

EVEN when we look at metro areas, missed opportunities in uptake

- Study of 778 MSM from Atlanta, Detroit, & NYC:
  - 31.2% reported current use of PrEP
  - Majority (61.2%) reported they had never used it for a variety of reasons (e.g., health concerns, safety concerns, cost issues, access issues)

Changes in PrEP Coverage, 2012-2016
(Darker = more increases in PrEP use)

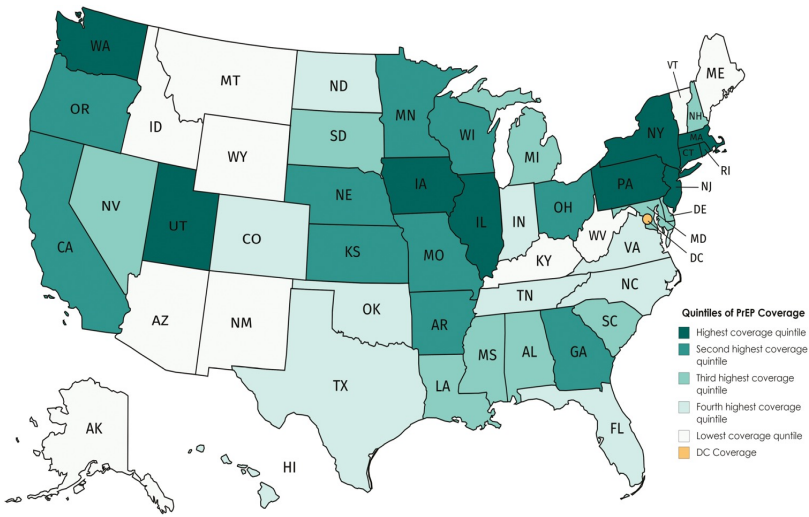


Image from Clin Infect Dis, 71(12) 15 December 2020, pgs. 3144–3151

Sexually Transmitted Infections (STIs) & HIV Risk

- The HIV and STIs epidemics are deeply intertwined and **syndemic**
- Complementary prevention strategies are needed
  - Increase uptake of **Pre-exposure Prophylaxis (PrEP)** for individuals at-risk for HIV
  - Ensuring access to and adherence for **Anti-Retroviral Therapy (ART**) for those already living with HIV
  - Routine **STI screening and HIV testing**
  - Promoting **consistent condom use** and other risk reduction strategies

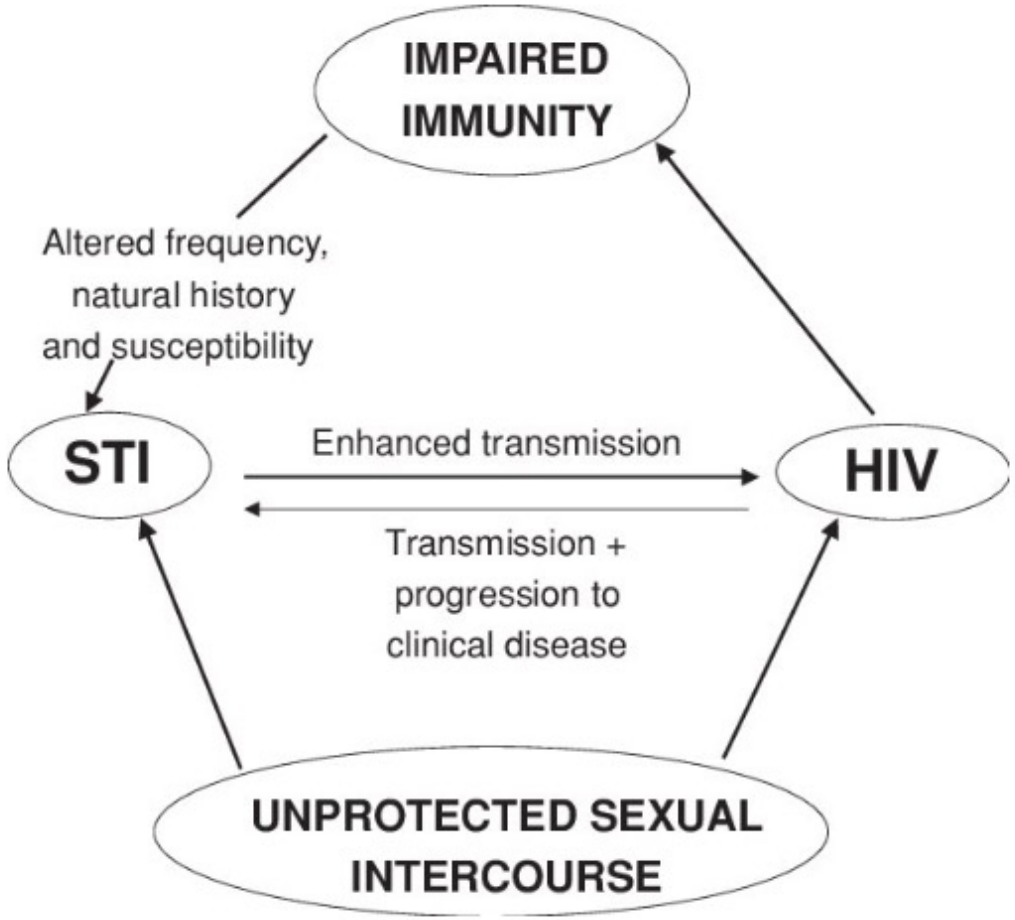
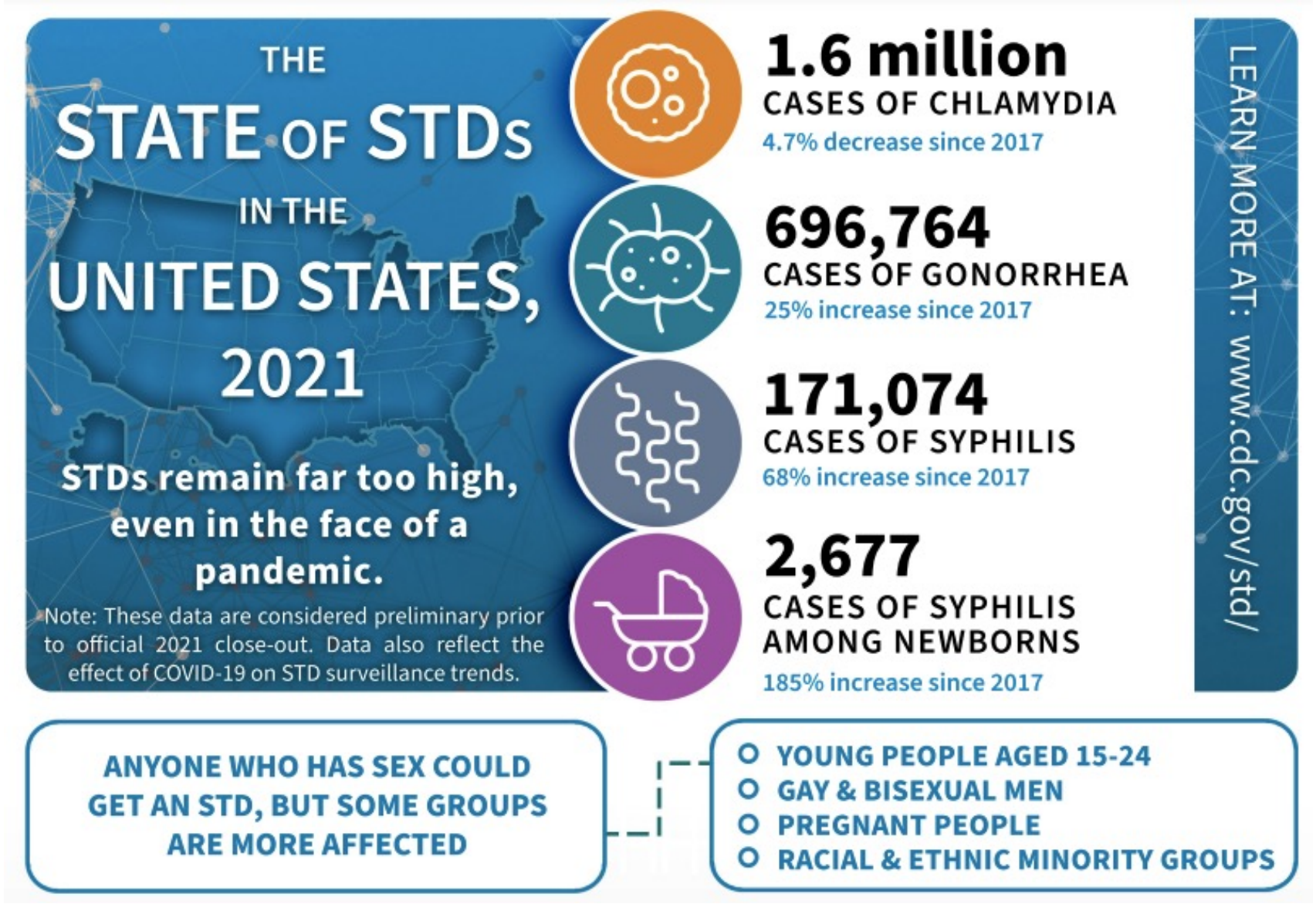
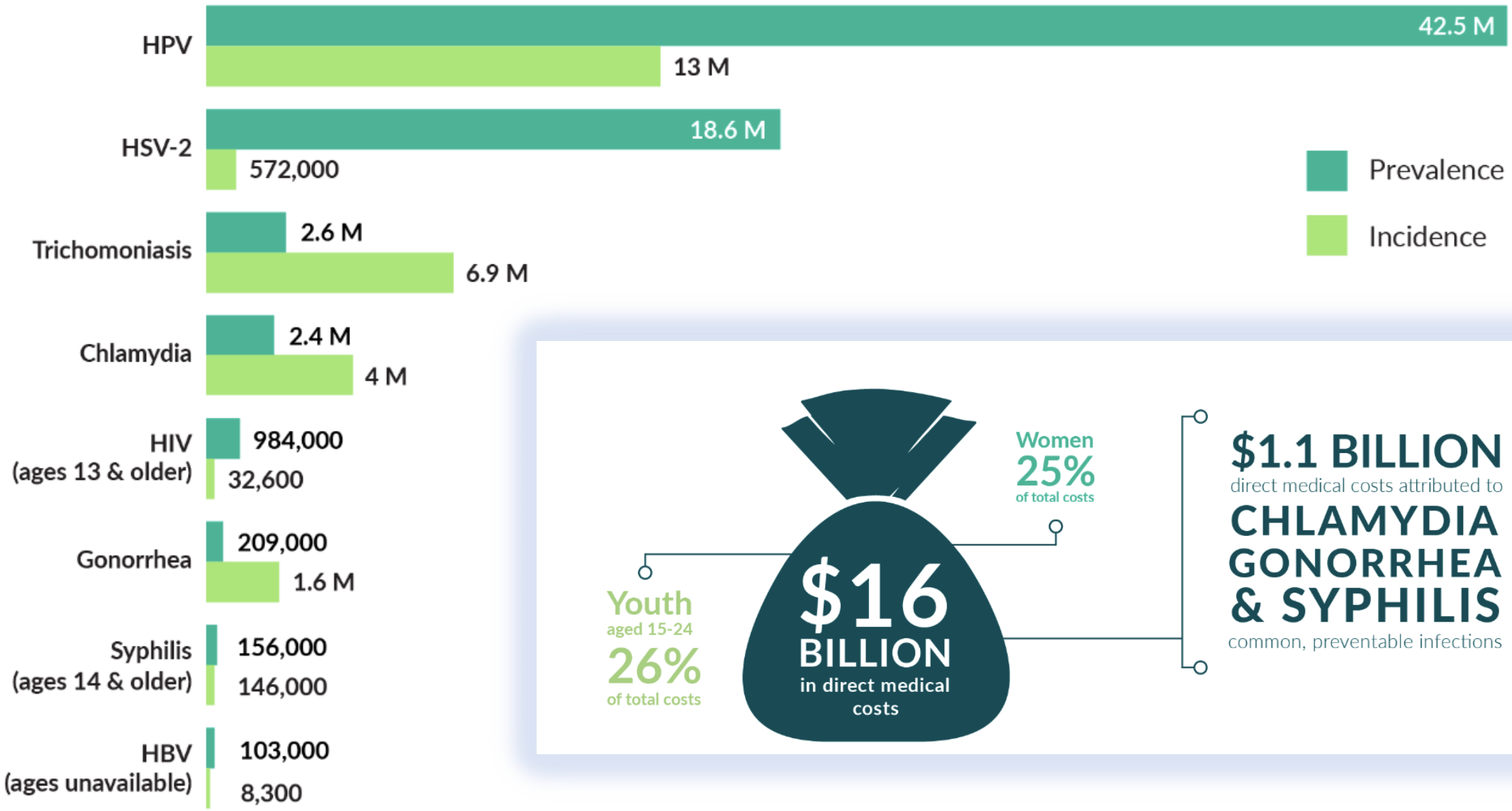


Image from Mayaud, P., & McCormick, D. (2001). Interventions against sexually transmitted infections (STI) to prevent HIV infection. *British Medical Bulletin*, *58*(1), 129-153.


THE
STATE OF STDs
IN THE
UNITED STATES,
2021
STDs remain far too high, even in the face of a pandemic.
Note: These data are considered preliminary prior to official 2021 close-out. Data also reflect the effect of COVID-19 on STD surveillance trends.
1.6 million
CASES OF CHLAMYDIA
4.7% decrease since 2017
696,764
CASES OF GONORRHEA
25% increase since 2017
171,074
CASES OF SYPHILIS
68% increase since 2017
2,677
CASES OF SYPHILIS AMONG NEWBORNS
185% increase since 2017
LEARN MORE AT: www.cdc.gov/std/
ANYONE WHO HAS SEX COULD GET AN STD, BUT SOME GROUPS ARE MORE AFFECTED
YOUNG PEOPLE AGED 15-24
GAY & BISEXUAL MEN
PREGNANT PEOPLE
RACIAL & ETHNIC MINORITY GROUPS

STI Prevalence and Incidence in the US



https://www.cdc.gov/std/statistics/prevalence-2020-at-a-glance.htm

Burden of STIs in South Carolina

- According to CDC data on chlamydia, gonorrhea and primary and secondary syphilis, **South Carolina has the 3rd highest rate for STIs** in the US
- **Richland County, SC** ranks 3rd among all US counties for STI rate

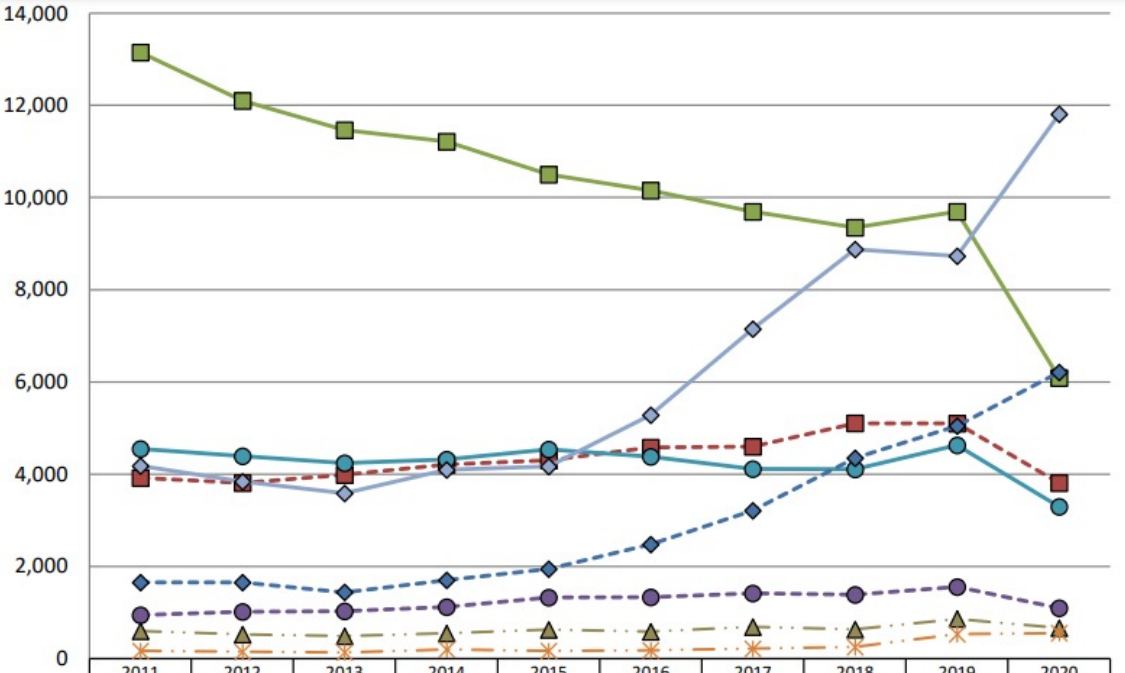
1. Hinds County, MS: 2,253.2
2. St. Louis City, MO: 2,122.6
3. Richland County, SC: 1,939.4
4. Norfolk City, VA: 1,932.9
5. Richmond County, GA: 1,932.2
6. Baltimore City, MD: 1,896.9
7. Cumberland County, NC: 1,776.4
8. Orleans Parish, LA: 1,741.4
9. Milwaukee County, WI: 1,724.7
10. Richmond City, VA: 1,724.6

Chlamydia

Chlamydia – STI caused by bacterium *Chlamydia trachomatis;* can cause multiple infections (e.g., cervicitis, urethritis, proctitis)

- Spreads through vaginal, anal, or oral sex
- Can also be transmitted from mother-to-child during childbirth
- In women, can lead to pelvic inflammatory disease (PID) infertility, ectopic pregnancy, and chronic pelvic pain
- Often a "**silent infection**"—most people with chlamydia h no symptoms and therefore do not seek testing
- Can cause serious health problems in short- and long-ter as well as serious complications for newborns born to persons with untreated chlamydia
- Chlamydia can be easily cured with antibiotics if we know there!

South Carolina Chlamydia Cases by Diagnosis Year, Race and Sex



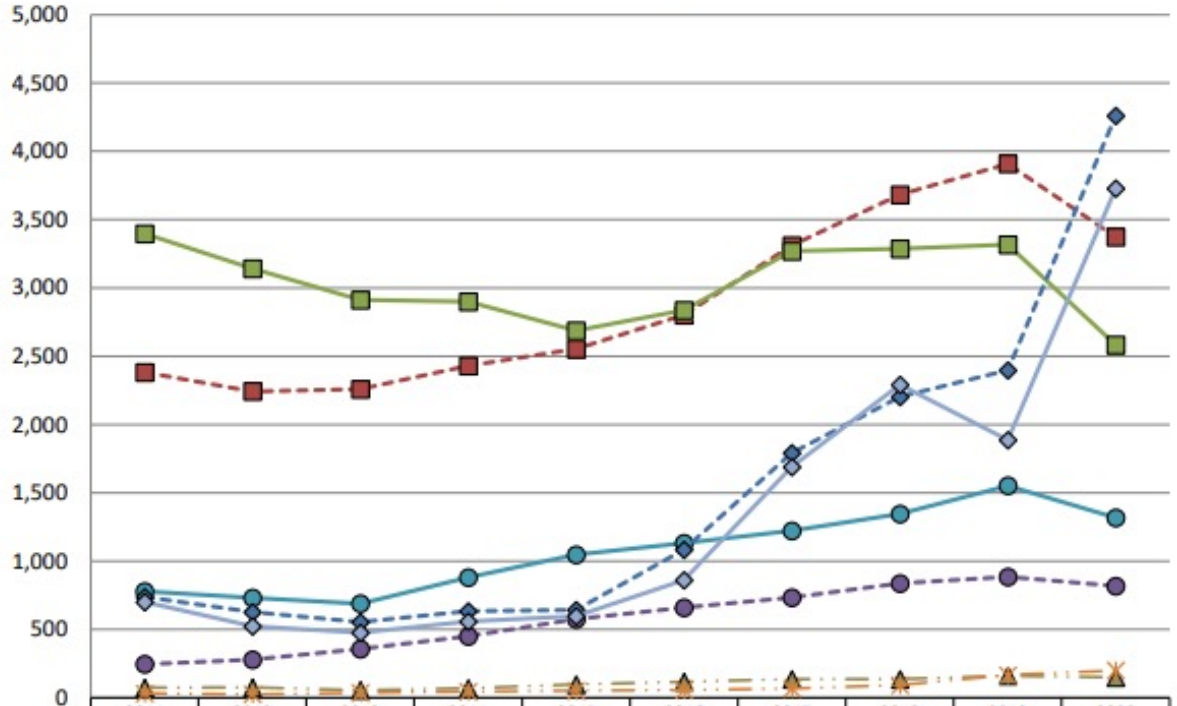
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Black Male	3919	3813	3989	4208	4302	4579	4596	5105	5101	3812
Black Female	13148	12099	11465	11215	10500	10153	9693	9349	9693	6091
White Male	946	1017	1032	1124	1329	1336	1415	1386	1558	1095
White Female	4552	4392	4244	4318	4539	4381	4114	4110	4629	3296
Hispanic M/F	600	525	492	553	632	587	692	634	866	666
Other M/F	170	150	139	200	171	182	220	257	531	556
Unknown Male	1654	1653	1441	1702	1947	2481	3214	4352	5044	6211
Unknown Female	4181	3844	3588	4095	4167	5286	7152	8877	8730	11807

Gonorrhea

Gonorrhea – STI caused by bacterium *Neisseria gonorrhoeae;* infects mucous membranes of the reproductive tract (e.g., cervix, uterus, fallopian tubes, urethra)

- Most women with gonorrhea are **asymptomatic** but risk serious and permanent complications from infection
- Untreated gonorrhea in a pregnant person may cause blindness, joint infections, and life-threatening blood infections in the baby
- Many men also asymptomatic; if symptoms, may include dysuria, urethral discharge, testicular or scrotal pain, rectal discharge, anal itching and soreness, bleeding, painful bowel movements
- Gonorrhea can be cured if we know it's there!

South Carolina Gonorrhea Cases by Diagnosis Year, Race and Sex



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Black Male	2383	2243	2260	2431	2554	2802	3311	3683	3909	3374
Black Female	3398	3142	2912	2900	2687	2837	3269	3287	3318	2584
White Male	246	279	357	451	575	660	733	837	885	817
White Female	780	731	690	881	1048	1131	1222	1347	1553	1317
Hispanic M/F	73	76	56	69	97	116	136	137	162	149
Other M/F	32	25	37	45	52	57	67	94	167	201
Unknown Male	737	628	555	633	642	1085	1791	2203	2397	4260
Unknown Female	701	523	477	559	597	862	1691	2291	1887	3728

Syphilis

Syphilis – STI caused by bacterium *Treponema pallidum*

- Spread person-to-person by direct contact with a syphilitic sore (*chancre*)
- "The Great Pretender"
- Four stages
  - **Primary stage** = Sore at site where syphilis entered your body (i.e., penis, vagina, anus, rectum, lips/mouth)
  - **Secondary stage** = Skin rashes and other symptoms
  - **Latent stage** = No visible symptoms but still in body
  - **Tertiary stage** = Multi-organ and systemic impacts
- Curable with certain antibiotics
- Cases rapidly rising in SC and congenital syphilis continues to be a major concern

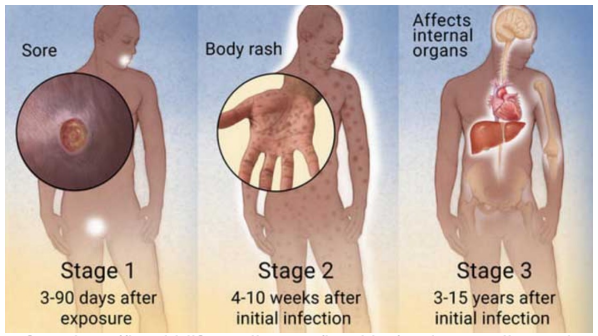
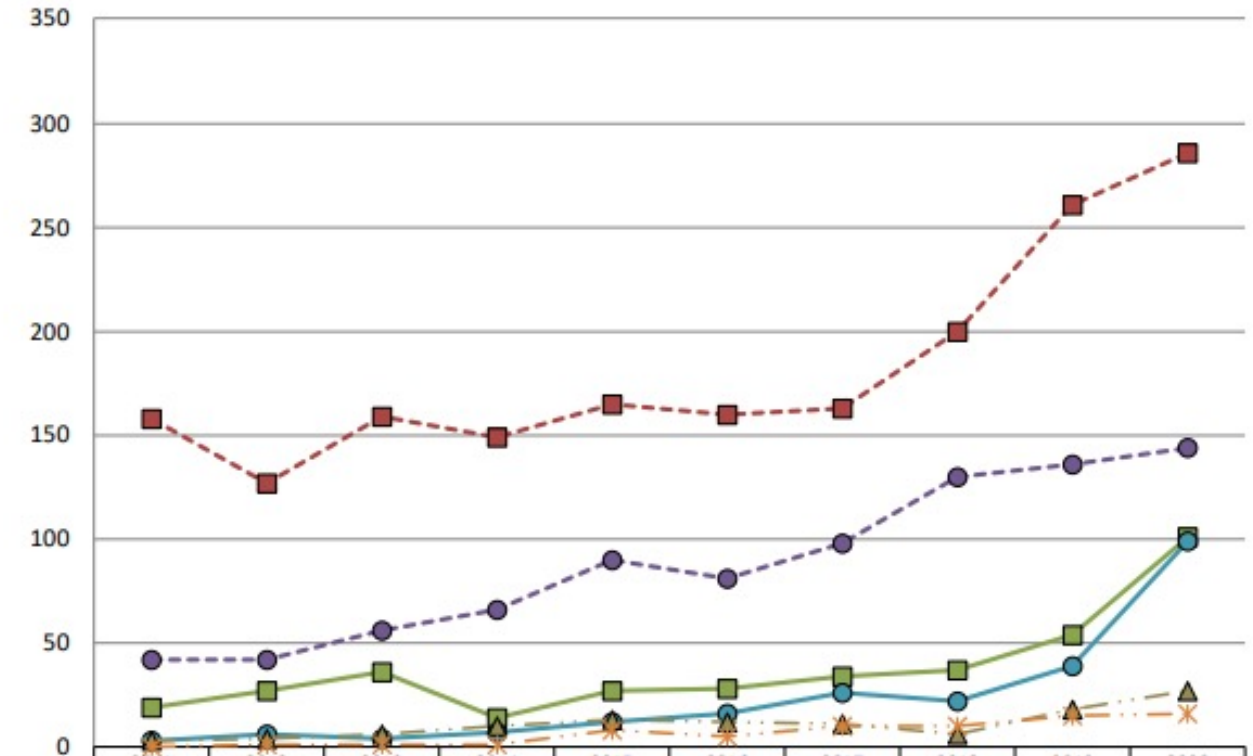


Image from http://healthlifemedia.com/healthy/understanding-stds-syphilis/

South Carolina Primary and Secondary Syphilis Cases by Diagnosis Year, Race and Sex



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Black Male	158	127	159	149	165	160	163	200	261	286
Black Female	19	27	36	14	27	28	34	37	54	101
White Male	42	42	56	66	90	81	98	130	136	144
White Female	3	6	4	7	12	16	26	22	39	99
Hispanic M/F	3	4	6	10	13	12	11	6	18	27
Other/Unk M/F	0	1	1	1	8	5	10	10	15	16

So…what do we do?

Use Effective Screening Practices

US Preventive Service Task Force and others have developed clear recommendations and resources for assessing risk and for screening for STI and HIV

Become Familiar with Testing Guidelines

From the

Screening for Sexually Transmitted Infections PRACTICE MANUAL

American Academy of Family Physicians

Table 1. Current Recommendations and Testing Methods for STIs*

STI	Testing method	Population	Additional Considerations
Gonorrhea	Nucleic acid amplification test (NAAT) preferred from a urine sample or a vaginal/oropharyngeal/ rectal swab	Women <25 years who are sexually active, older women at risk, pregnant women if at risk, men who have sex with men (MSM) if at risk, all HIV+ individuals*	Testing should be performed at each anatomic site where exposure may have occurred
Chlamydia	Nucleic acid amplification test (NAAT) preferred from a urine sample or a vaginal/oropharyngeal/ rectal swab	Women <25 years who are sexually active, older women at risk, pregnant women if at risk, MSM if at risk, all HIV+ individuals*	Testing should be performed at each anatomic site where exposure may have occurred with the exception of oropharyngeal testing, which is not recommended for chlamydia[6]
Syphilis	Serum nontreponemal antibody test, such as the rapid plasma reagin (RPR) test, confirmed by serum fluorescent treponemal antibody (FTA) test	Nonpregnant adults and adolescents at increased risk, pregnant individuals, MSM if at risk, all HIV+ individuals*	
Hepatitis B	Serum hepatitis B surface antigen (HbsAg)	Individuals at increased risk, pregnant individuals, and annual screening in HIV+ individuals*	
Hepatitis C	Serum hepatitis C virus (HCV) antibody	Individuals at high risk for infection, annual screening in HIV+*	
HIV**	Serum HIV	Adolescents and adults ages 15 to 65 years for HIV infection; younger adolescents and older adults who are at increased risk should also be screened	
HSV	Type specific serum immunoglobulin G (IgG) antibody only if diagnosis uncertain, swab of lesion with polymerase chain reaction is more specific in patients with symptoms	Based on clinical history, routine screening of asymptomatic patients is not recommended	
HPV	Cytology, human papillomavirus (HPV) alone, or co-testing	Any patient with a cervix 21-29 years old – cytology; 30-65 years old cytology + HPV every 5 years or HPV alone every 5 years	Insufficient evidence to recommend for or against anal pap smears[7]

* Guidelines for HIV+ and MSM are based on the CDC guideline (2015). All other recommendations are based on the United States Preventive Services Task Force (USPSTF)/ American Academy of Family Physicians (AAFP).

** See additional considerations on screening age from the AAFP.

** The AAFP guidelines differ from the USPSTF guidelines for screening age for HIV.[7]

https://www.aafp.org/dam/AAFP/documents/patient_care/sti/hops19-sti-manual.pdf

Consider Extragenital Testing for STIs in MSM

Extragenital testing for gonorrhea and chlamydia in men who have sex with men (MSM) is a **high priority** for curbing STI rates in the US

Extragenital testing =

Nucleic acid amplification (NAAT) tests from throat and rectal sites

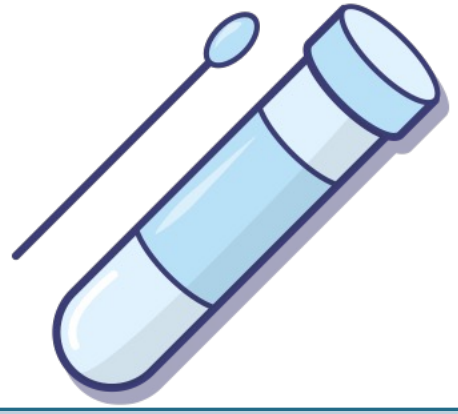
Consider Extragenital STI Testing for MSM

For help with billing…

STD Technical Assistance Center has developed a **coding guide for** use of NAATs with extragenital specimens

WHY is extragenital testing for men who have sex with men (MSM) needed?

- Chlamydia and gonorrhea are common in MSM and rates are increasing
- Urine-only screens for chlamydia and gonorrhea miss 70-88% of infections in MSM
- Rectal gonorrhea infections are asymptomatic 85% of the time
- MSM are more likely than other groups to demonstrate antimicrobial resistant gonorrhea



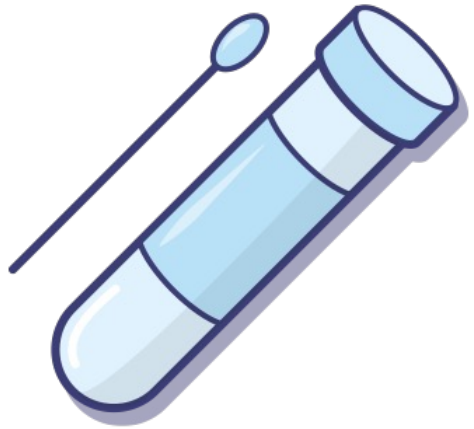
Consider Extragenital STI Testing for MSM

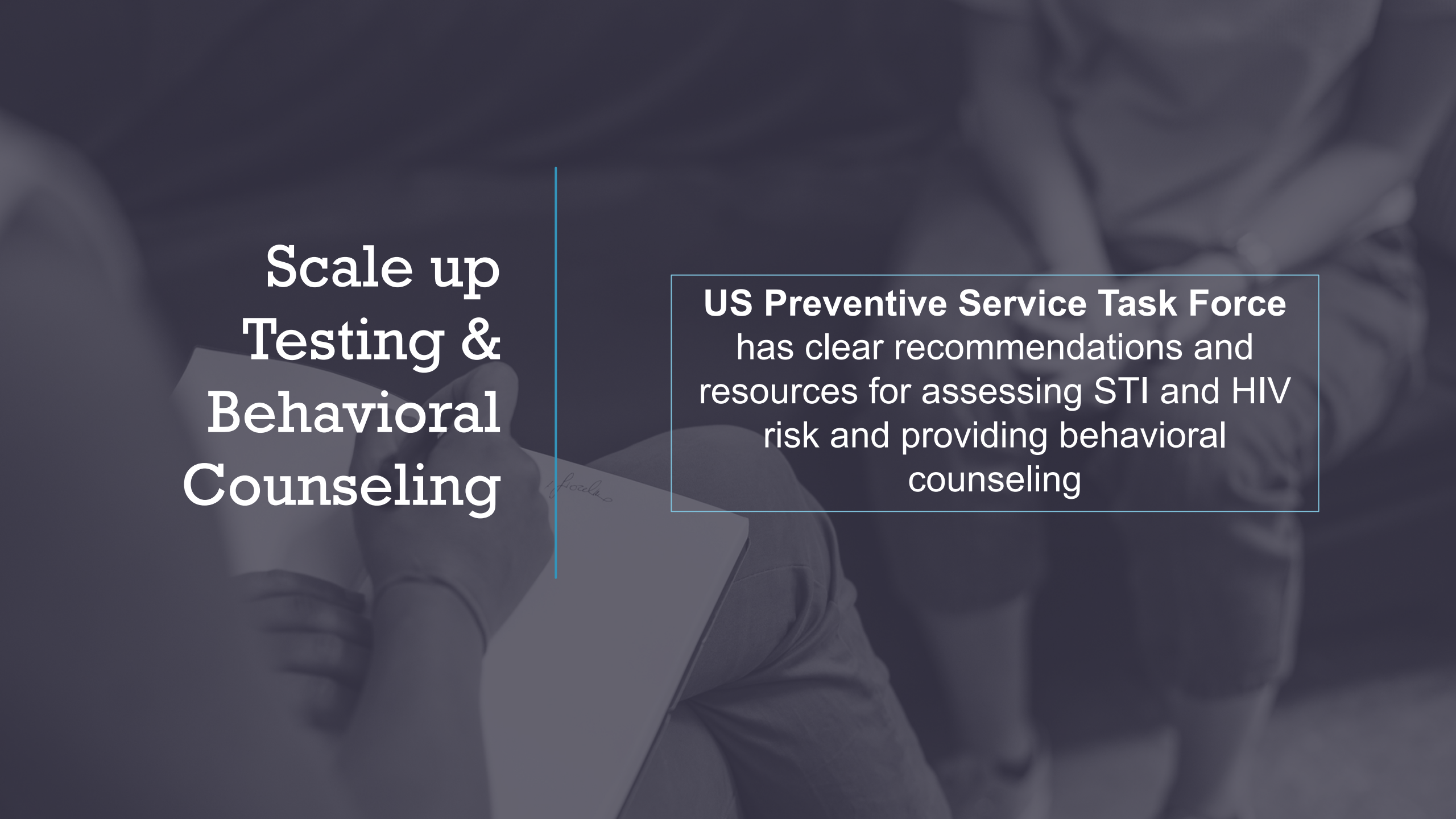
For help with billing…

STD Technical Assistance Center has developed a **coding guide for** use of NAATs with extragenital specimens

Regardless of condom use, CDC recommends use of Nucleic Acid Amplification Tests (NAATs) as the preferred test for MSM:

- Test for urethral chlamydia and gonorrhea infection in men who have had insertive intercourse in past year
- Test for rectal chlamydia and gonorrhea infection in men who have had receptive anal intercourse in past year
- Test for pharyngeal gonorrhea infection in men who have had receptive oral sex intercourse in past year





Scale up Testing & Behavioral Counseling

US Preventive Service Task Force has clear recommendations and resources for assessing STI and HIV risk and providing behavioral counseling

USPSTF Recommendations for Behavioral Counseling

- Providers should **offer counseling** to all sexually active adolescents and to adults who are at increased risk for STIs
- Grade B = moderate evidence

HOW?

- **ASSESS** sexual behaviors and risk for STIs
- **PROVIDE** behavioral counseling

Review of evidence for behavioral counseling published in JAMA:
https://jamanetwork.com/journals/jama/fullarticle/2769473

Henderson, J. T., Senger, C. A., Henninger, M., Bean, S. I., Redmond, N., & O'Connor, E. A. (2020). Behavioral counseling interventions to prevent sexually transmitted infections: updated evidence report and systematic review for the US Preventive Services Task Force. *JAMA*, *324*(7), 682-699.

https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/sexually-transmitted-infections-behavioral-counseling

USPSTF Recommendations for Behavioral Counseling

- **ASSESS** sexual behaviors and risk for STIs. Factors that increase risk:
  - Being diagnosed with an STI in past year
  - Inconsistent or no condom use
  - Multiple sex partners or high-risk partners
  - Belonging to a community with high STI prevalence (e.g., sexual and gender minority group, illicit drug use, recent incarceration, sex work, minoritized by race and/or ethnicity)

https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/sexually-transmitted-infections-behavioral-counseling

USPSTF Recommendations for Behavioral Counseling

- **PROVIDE** behavioral counseling
  - Deliver counseling messages in person, refer to another source, or inform about media-based interventions
  - Range of interventions show promise (i.e., brief counseling interventions <30 minutes in single session to multiple session group interventions)
  - Educate on common STIs and STI transmission
    - Aim to increase motivation or commitment to safer sex practices
    - Provide training in condom use
    - Communicate about safer sex, problem solving, and other pertinent skills

https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/sexually-transmitted-infections-behavioral-counseling

Consider PrEP

PrEP reduces the risk of acquiring HIV through sex by ~99% if taken daily.

Improving STI Prevention & Care through Partnerships

CDC Health Equity Initiative
Funded by the CDC Foundation

RURAL & MINORITY
Health Research Center

Rationale

- South Carolina is a focus of the **Ending the HIV Epidemic (EHE)** Program because:
  - ≥10% of new HIV diagnoses in 2016 & 2017 were in **rural areas** (<50,000 population);
  - At least 75 total new diagnoses statewide (**SC = 773 in 2017!);**
  - No priority county.
- New analysis by our team (*in preparation: Giannouchos et al., 2022*) has shown:

Chlamydia & Gonorrhea → More likely among rural Medicaid beneficiaries compared to urban Medicaid beneficiaries

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Chlamydia, Gonorrhea, & HIV

→

More likely among racial and ethnic minority residents of South Carolina than those who are not minoritized by race or ethnicity

Rationale

- Barriers in access to care for rural residents are exacerbated by **systemic factors**, including stigma (Harrison et al., 2022; Valentine et al, 2022)
- Recent study to better understand barriers to PrEP in rural communities in North Carolina and South Carolina was recently published in *AIDS Care*
- Used social determinants of health (SDOH) as a framework to identify rural barriers to PrEP scale-up
  - 14 Key Informant Interviews (KIIs)
  - 3 Focus Group Discussions (FGDs) with 23 young men who have sex with men and transgender women (YMSM/TGW)

Rationale

- The South has a unique historical and socio-political context
- Structural challenges are complex and interconnected
- Persistent racism, racial discrimination, and segregation in the rural South continue to impact HIV and STI prevention

"It's hard to tease out racism versus socio-economic differences that lead to less healthcare, less trust in the healthcare system, less access…It's hard to tease out …what's pure racism versus a society that set up these over years and years of historical [discrimination]"

AIDS CARE
https://doi.org/10.1080/09540121.2022.2029816

Taylor & Francis

"Do I want PrEP or do I want a roof?": Social determinants of health and HIV prevention in the southern United States

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ABSTRACT

Scaling up use of Pre-Exposure Prophylaxis (PrEP) among young men who have sex with men and transgender women (YMSM/TGW) is a critical part of the *Ending the HIV Epidemic* plan. This qualitative study contextualized the social determinants of health (SDOH) that can impede HIV prevention in rural North and South Carolina with 14 key informant interviews with stakeholders and 3 focus groups with YMSM/TGW (*N* = 23). A deductive-inductive approach with multiple coders was employed to identify themes related to SDOH in rural areas, including economic challenges (e.g., housing and food insecurity), neighborhood characteristics (e.g., lack of transportation), healthcare-related issues (e.g., provider shortages) and educational barriers (e.g., lack of comprehensive and inclusive sexual education). The socio-environmental context of the rural South and prioritization of local, community-based partnerships are necessary to reduce the burden of HIV.

ARTICLE HISTORY
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KEYWORDS
HIV; rural; social determinants; sexual and gender minority; youth

The United States (US) *Ending the HIV Epidemic* (EHE) initiative was launched in 2019 with the goal of reducing HIV infections by 90% by 2030 through a four-pronged approach (i.e., early diagnosis, rapid treatment, prevention scale-up, outbreak containment) (Fauci et al., 2019). Notably, EHE prioritizes socio-demographic groups disproportionately affected by HIV, including African-American and Hispanic/Latino men who have sex with men (MSM) and transgender women. Within these groups, youth have poorer outcomes across the HIV care continuum (e.g., linkage to/engagement in care, medication adherence) than other ages (Flentje et al., 2020; Gangamma et al., 2008). Therefore, expanding access to pre-exposure prophylaxis (PrEP) among young men who have sex with men/transgender women (YMSM/TGW) is a priority (Fauci et al., 2019).

The EHE initiative also targets a small number of geographic "hot spots", including 48 counties, seven states, Washington, DC, and San Juan, Puerto Rico – jurisdictions accounting for >50% of new HIV diagnoses in the US. These areas are disproportionately in the Southern US, with 42% of targeted jurisdictions located in six states (i.e., Texas, Louisiana, Tennessee, Georgia, North Carolina [NC], Florida). Seven additional Southern states (i.e., Alabama, Arkansas, Kentucky, Mississippi, Missouri, Oklahoma, South Carolina [SC]) are targets of EHE due to their substantial burden of rural HIV. Both NC and SC fall in the "highest risk" category for lifetime HIV risk; 1 in 86 South Carolinians and 1 in 93 North Carolinians will acquire HIV within their lifetime (CDC, 2020a). In both states, people ages 20–29 years have the highest HIV incidence, African-Americans account for a majority of new infections (NC = 63%; SC = 61%), anal sex is the primary route of transmission, and rural HIV cases are prevalent (NC HIV/STD/Hepatitis Surveillance Unit, 2019; South Carolina Department of Health and Environmental Control, 2018, 2020; Ingram & Franco, 2014).

Social determinants of health (SDOH) are important – yet understudied – barriers to HIV prevention, especially in rural communities. SDOH are the physical conditions in which people grow and develop, as well as the interconnected social and economic systems that promote or inhibit positive health outcomes (CDC, 2010; US Department of Health and Human Services [DHHS], 2020). As part of the Healthy People 2030 initiative to achieve health equity, a place-based framework is utilized for addressing SDOH in five areas:

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Project Objectives

1

Reduce bacterial STI prevalence in rural South Carolina.

2

Through education and training, support providers in rural areas to conduct multi-site extragenital testing for patients taking PrEP.

3

Explore partnership with South Carolina Medicaid to adopt this method as a quality improvement initiative.

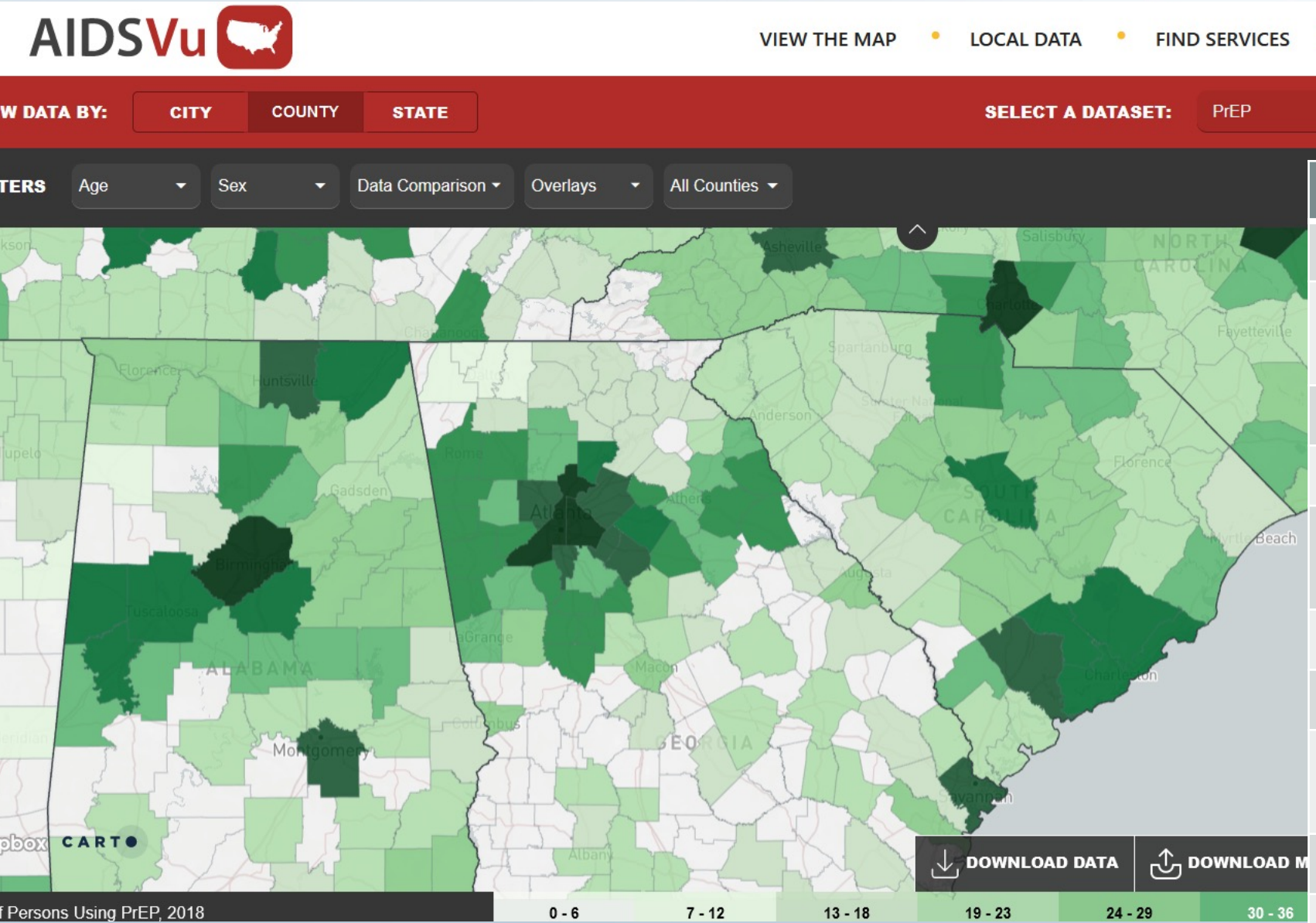
Select Project Activities

- Identify rural “hotspot” areas for HIV and STIs
- Describe rural healthcare infrastructure for providing PrEP services
- Assess awareness of HIV/PrEP in rural areas
- Develop a quality improvement initiative that addresses prevention of STIs/HIV
  - Develop educational opportunities
  - Create a curriculum on multi-site extragenital STI testing for patients taking PrEP

Defining rural South Carolina hotspots: Eligible Counties

Abbeville County	Greenwood County
Allendale County	Hampton County
Bamberg County	Lee County
Barnwell County	Marion County
Cherokee County	Marlboro County
Chesterfield County	McCormick County
Clarendon County	Newberry County
Colleton County	Oconee County
Dillon County	Orangeburg County
Georgetown County	Williamsburg County

PrEP Utilization Estimates (2018)

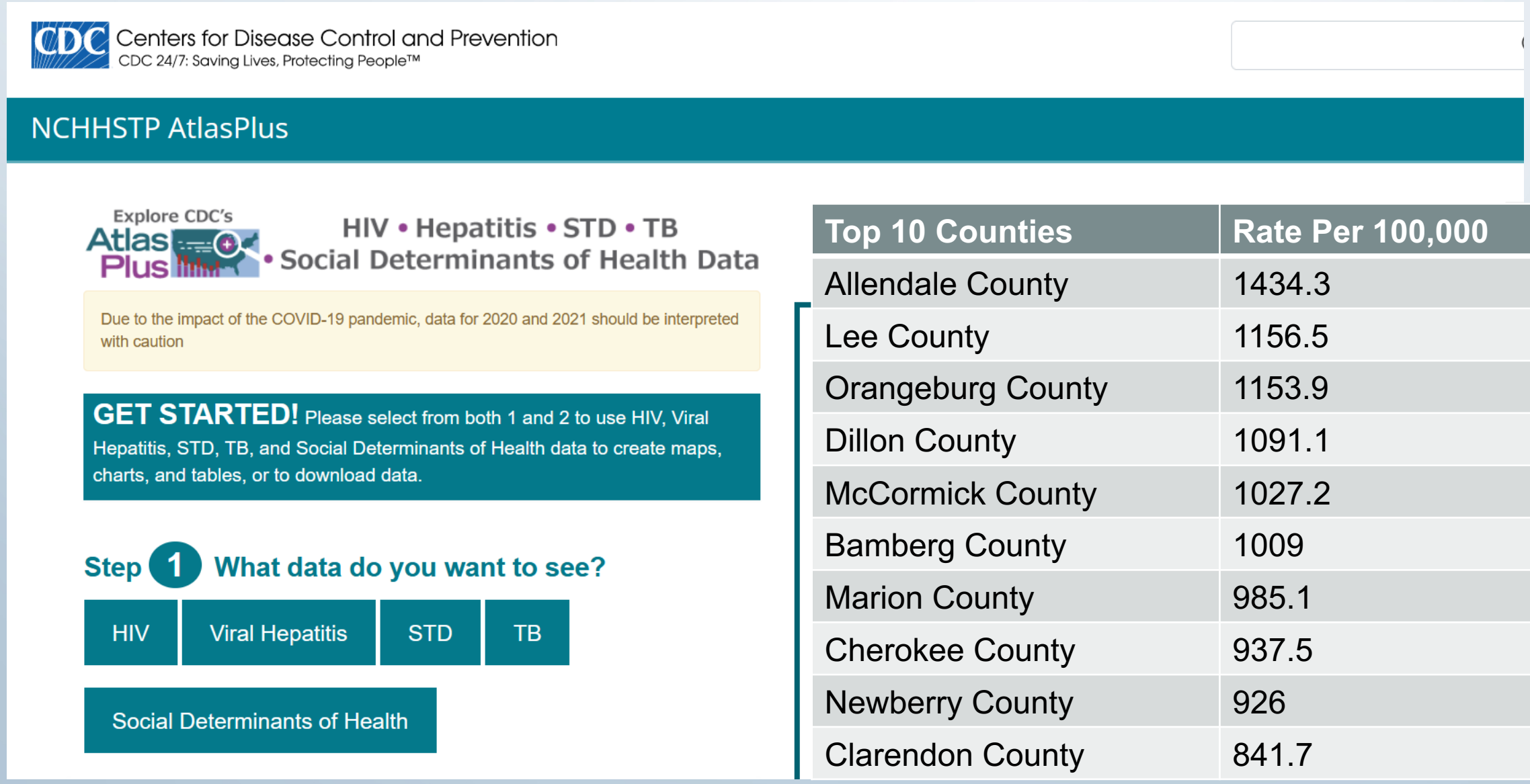


Top 10 Counties	Rate Per 100,000
Colleton County	54
Georgetown County	38
Hampton County	35
Bamberg County	32
Chesterfield County	31
Marlboro County	30
Marion County	30
Williamsburg County	29
Abbeville County	28

SC DHEC PrEP Utilization Data

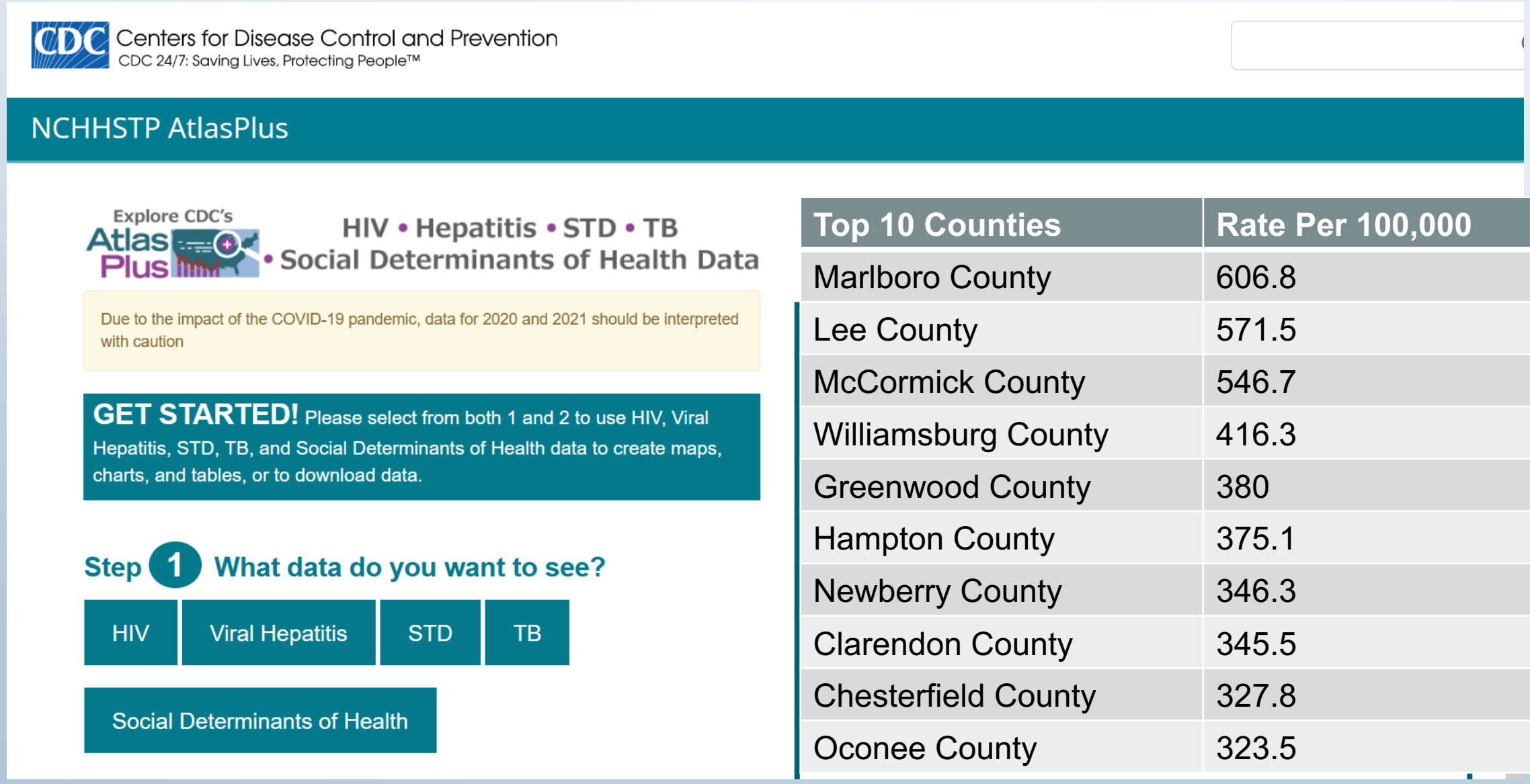
- Agencies in South Carolina providing comprehensive PrEP Services:
  - AID Upstate (Greenville)
  - Affinity Health Center (Rock Hill)
  - CAN Community Health (Columbia)
  - Careteam+ (Myrtle Beach/Conway)
  - PALSS (Columbia)
  - Palmetto Community Care (Charleston)
- Counties **not** within reach of these agencies: Abbeville, Allendale, Barnwell, Cherokee, Chesterfield, Colleton, Dillon, Edgefield, Hampton, Laurens, McCormick, and Union

Chlamydia prevalence (2018)



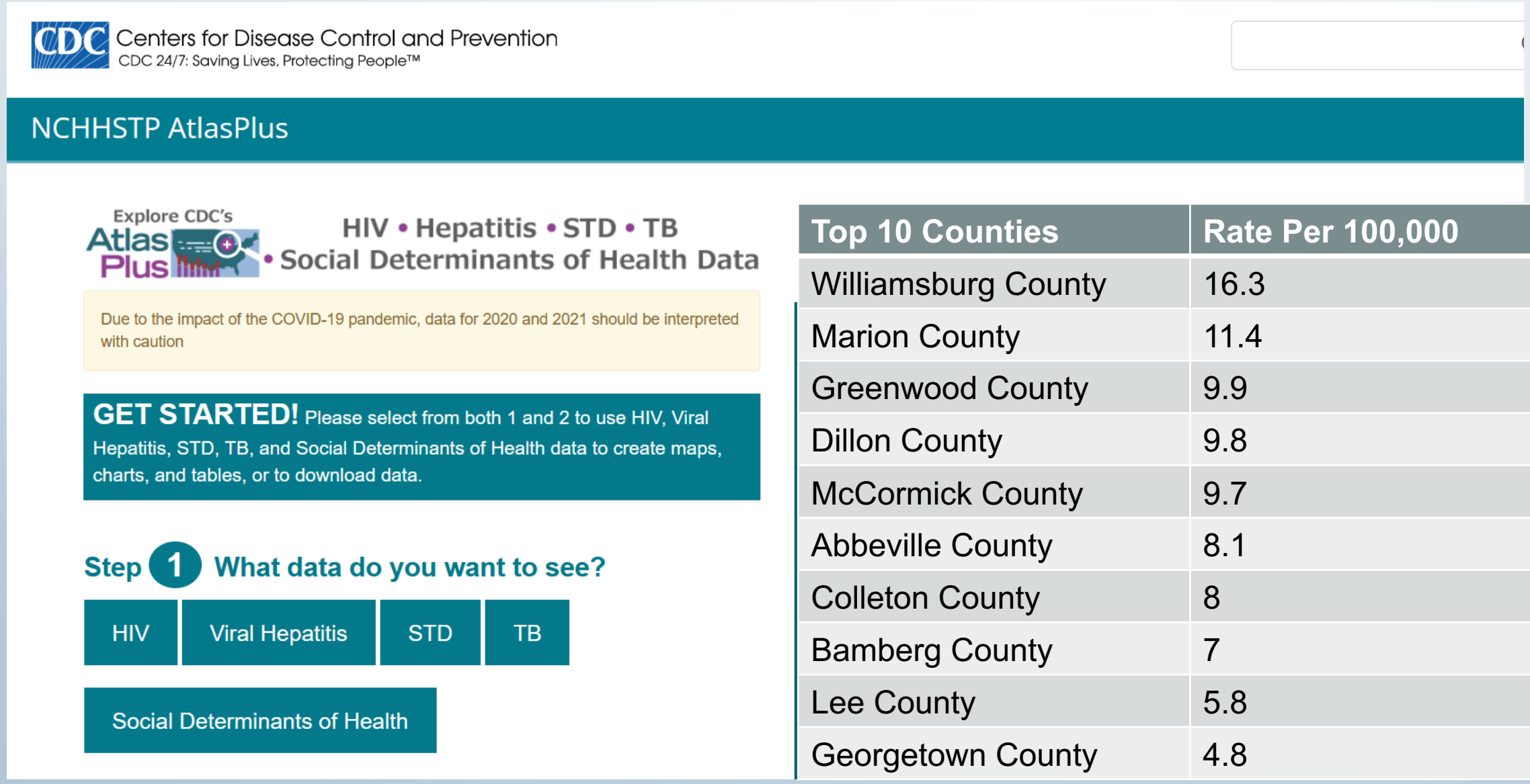
Top 10 Counties	Rate Per 100,000
Allendale County	1434.3
Lee County	1156.5
Orangeburg County	1153.9
Dillon County	1091.1
McCormick County	1027.2
Bamberg County	1009
Marion County	985.1
Cherokee County	937.5
Newberry County	926
Clarendon County	841.7

Gonorrhea prevalence (2018)



Top 10 Counties	Rate Per 100,000
Marlboro County	606.8
Lee County	571.5
McCormick County	546.7
Williamsburg County	416.3
Greenwood County	380
Hampton County	375.1
Newberry County	346.3
Clarendon County	345.5
Chesterfield County	327.8
Oconee County	323.5

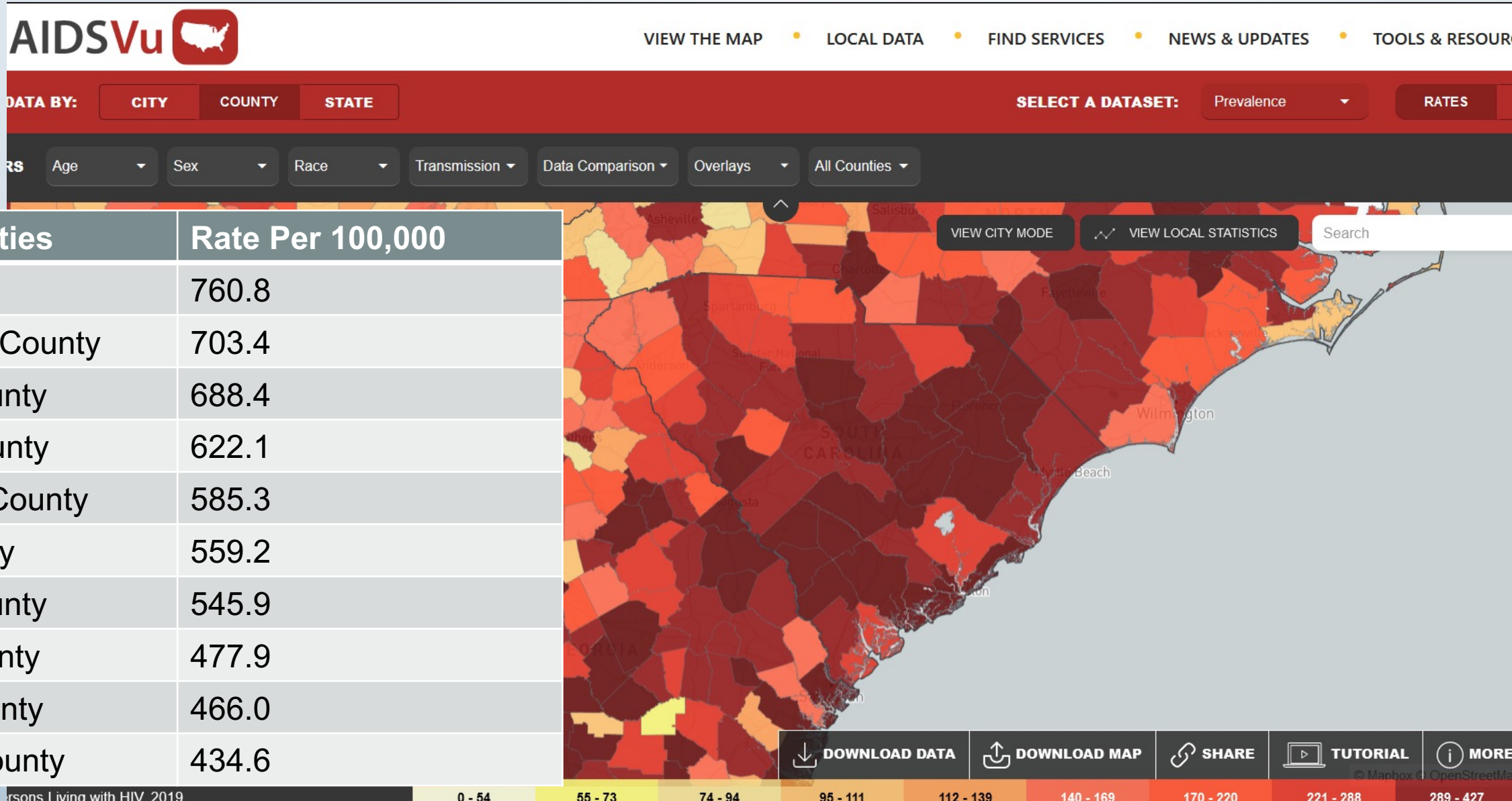
Syphilis prevalence (2018)



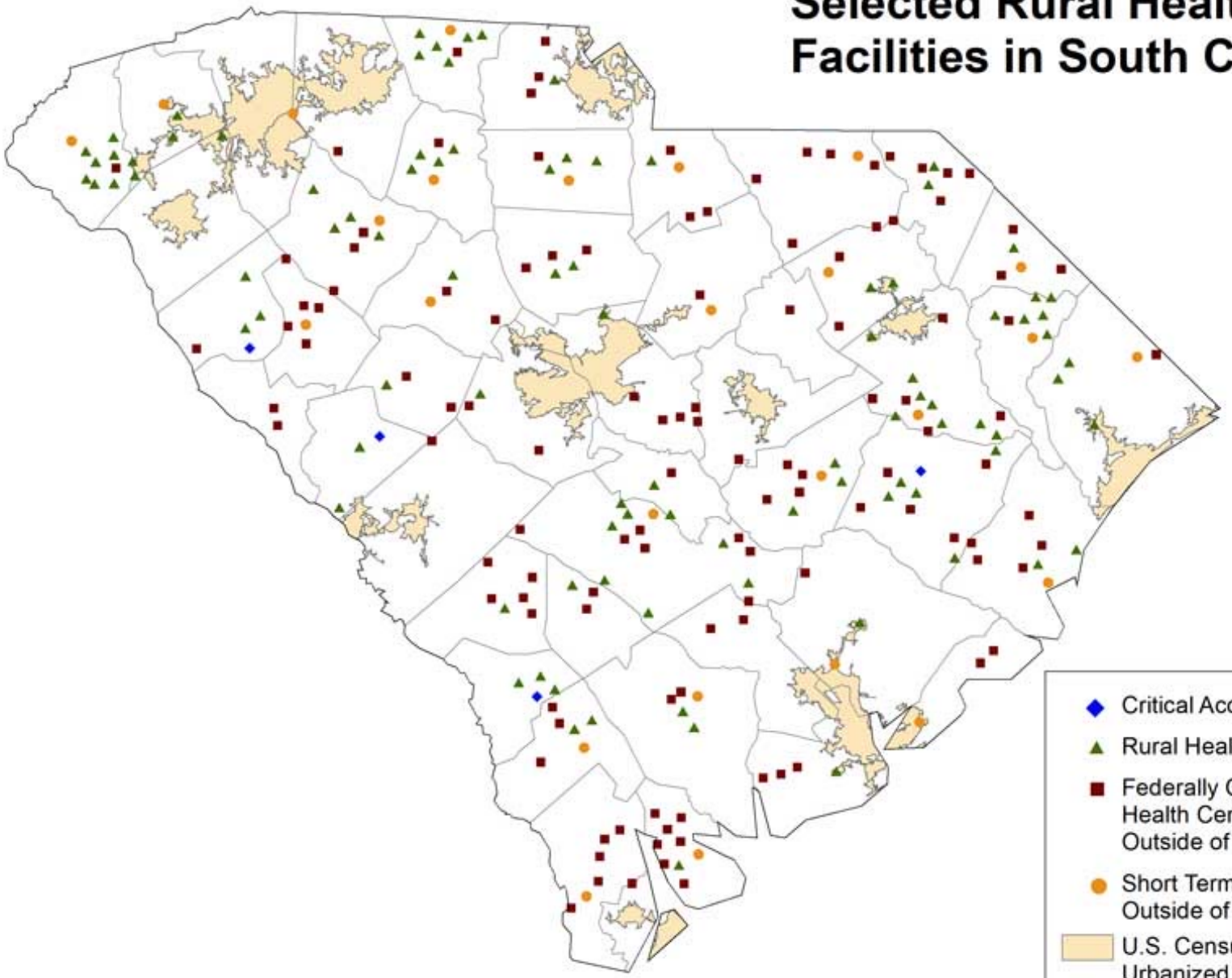
Top 10 Counties	Rate Per 100,000
Williamsburg County	16.3
Marion County	11.4
Greenwood County	9.9
Dillon County	9.8
McCormick County	9.7
Abbeville County	8.1
Colleton County	8
Bamberg County	7
Lee County	5.8
Georgetown County	4.8

HIV Prevalence (2018)

Top 10 Counties	Rate Per 100,000
Lee County	760.8
Williamsburg County	703.4
Bamberg County	688.4
Allendale County	622.1
Orangeburg County	585.3
Marion County	559.2
Hampton County	545.9
Barnwell County	477.9
Marlboro County	466.0
Clarendon County	434.6



Selected Rural Healthcare Facilities in South Carolina



RHIhub
Rural Health Information Hub

Data Source(s): data.HRSA.gov, U.S. Department of Health and Human Services, October 2021

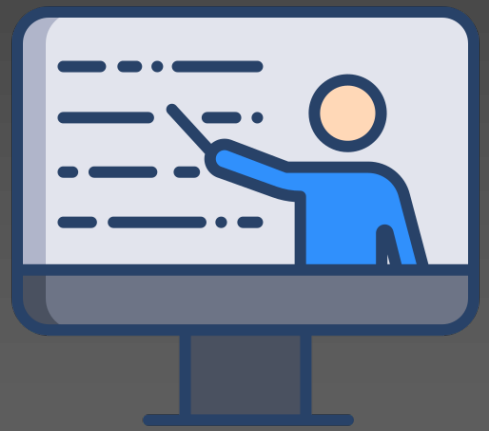
Identified Target Counties

- Bamberg
- Georgetown
- Marion
- Orangeburg

Goal: Increase Provider Awareness

- Led by SCORH provider services team
- Technical assistance to improve provider awareness and knowledge about STIs (i.e., Gonorrhea, Syphilis, Chlamydia) and HIV, as well as encourage rural practices to implement strategies to increase STI testing and treatment
- Strategies will include the following:
  - Complete an assessment that describes their patient population and current STI screening and treatment practices, including PrEP prescription practices
  - View and complete a total of three (3) educational modules regarding STIs
  - Participate in post-learning discussions to develop and test an improvement strategy related to HIV and STI testing/treatment

SC AHEC Educational Offerings: Topics



- Addressing STI and HIV Prevention & Treatment for Rural Populations: A Call to Action
- Clinical Guidelines – General STI and HIV Prevention & Treatment
- Clinical Guidelines – PrEP Utilization
- Clinical Guidelines – Extragenital STI Testing for PrEP Users
- How to Talk to Patients about STIs and HIV
- Practice Management for STI and HIV Prevention & Treatment

Forthcoming Curriculum: Topics

PUBLIC HEALTH NEED – STIS IN SOUTH CAROLINA

CLINICAL GUIDELINES

BEST PRACTICES, CLINICAL TOOLS, AND RESOURCES FOR STI PREVENTION & TREATMENT

PRACTICE MANAGEMENT FOR STI PREVENTION & TREATMENT

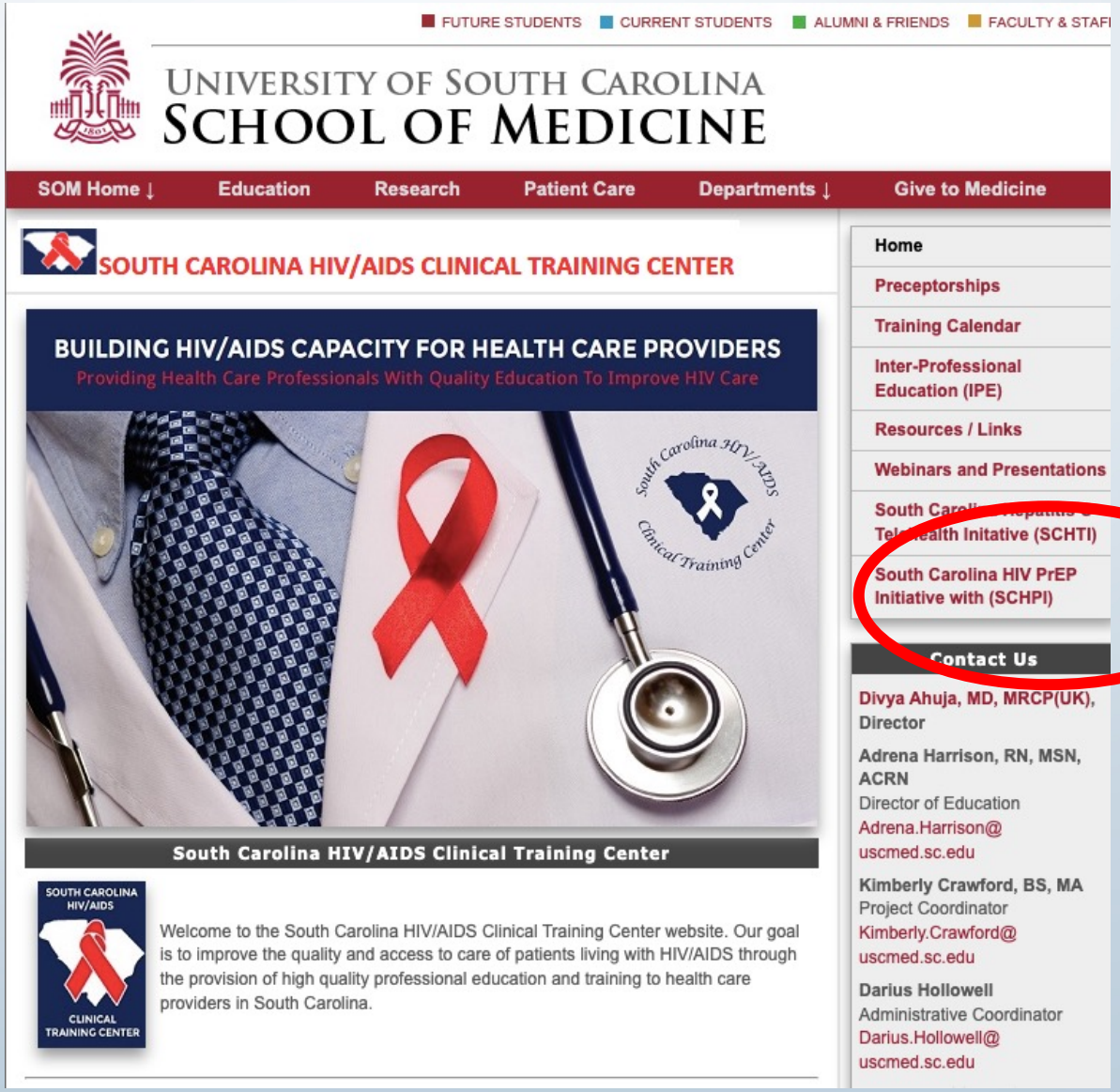
QUALITY IMPROVEMENT INITIATIVES

ACTION PLAN DEVELOPMENT

Other Educational Opportunities

SC HIV/AIDS Clinical Training Center at UofSC School of Medicine
http://schivtc.med.sc.edu/

Part of the AIDS Education and Training Center (AETC) Program



Other Educational Opportunities

Many resources available from South Carolina Dept of Health & Environmental Control (DHEC), including annual **PrEP Week**, **PrEP 101**, **PrEP Provider Toolkit**, PrE**P Locator**, & **PrEP Patient Assistance**

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https://scdhec.gov/infectious-diseases/hiv-std-viral-hepatitis/prep-awareness-week

Questions? Comments?

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http://www.healthyfutureslab.com

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