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Addressing Racial Disparities in Adolescent Sexual Health

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Disclosures

I have no disclosures.

Grant Funding Contributing to this Presentation

- UAB Department of Pediatrics Dixon Fellowship

I would like to acknowledge the following individuals/organizations for their slides

1. Dr. Latesha Elopre
2. HPV You are the Key to Cancer Prevention Campaign

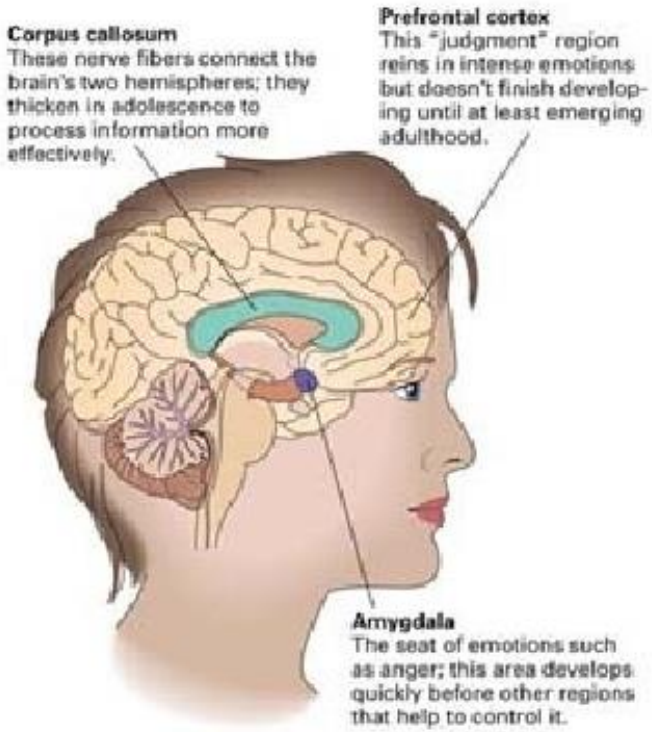
Objectives

1. Understand Adolescent Growth and Development in the context of sexual health
2. Be able to discuss disparities in incidence of select STIs (Gonorrhea, Chlamydia, Syphilis, HIV, HPV, Teen Pregnancy)
3. Name strategies to prevent STIs
4. Identify barriers that contribute to disparities in sexual health among adolescents

Adolescent Development

- 3 stages
  - Early adolescence
    - Ages 10-14 years
    - Grades 5-9
  - Middle Adolescence
    - Ages 15-17 years
    - Grades 9-12
  - Late Adolescence/Young Adulthood
    - Ages 18-25 years
    - Post high school

BRAIN DEVELOPMENT
ADOLESCENCE



Brain undergoes structural changes

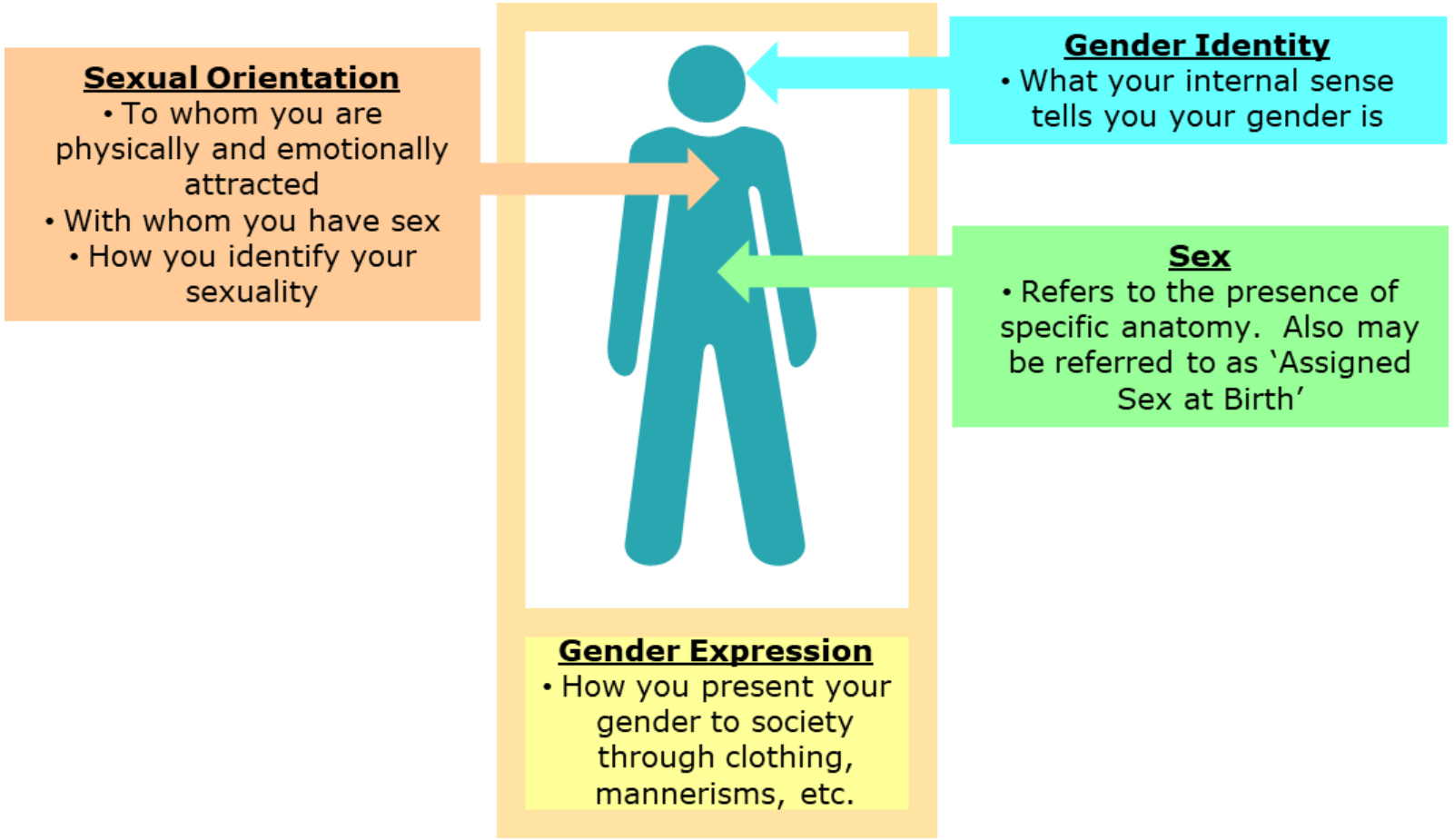
Age 12 - Parietal Lobe mature

- **Corpus callosum**
  - nerve fibers connect the brain's left and right hemispheres
  - thickens, improves adolescents' ability to process information
- **Amygdala** - matures earlier than the prefrontal cortex
- **Synapses** – at adult density

18 – 25 years: Frontal Lobe/ Prefrontal cortex matures

Sexual Development

- Sexual identity may be fluid for some individuals
- Sexual orientation is a combination of
  - Identity
  - Attraction
  - Behavior
- Who an adolescent is may be on a spectrum



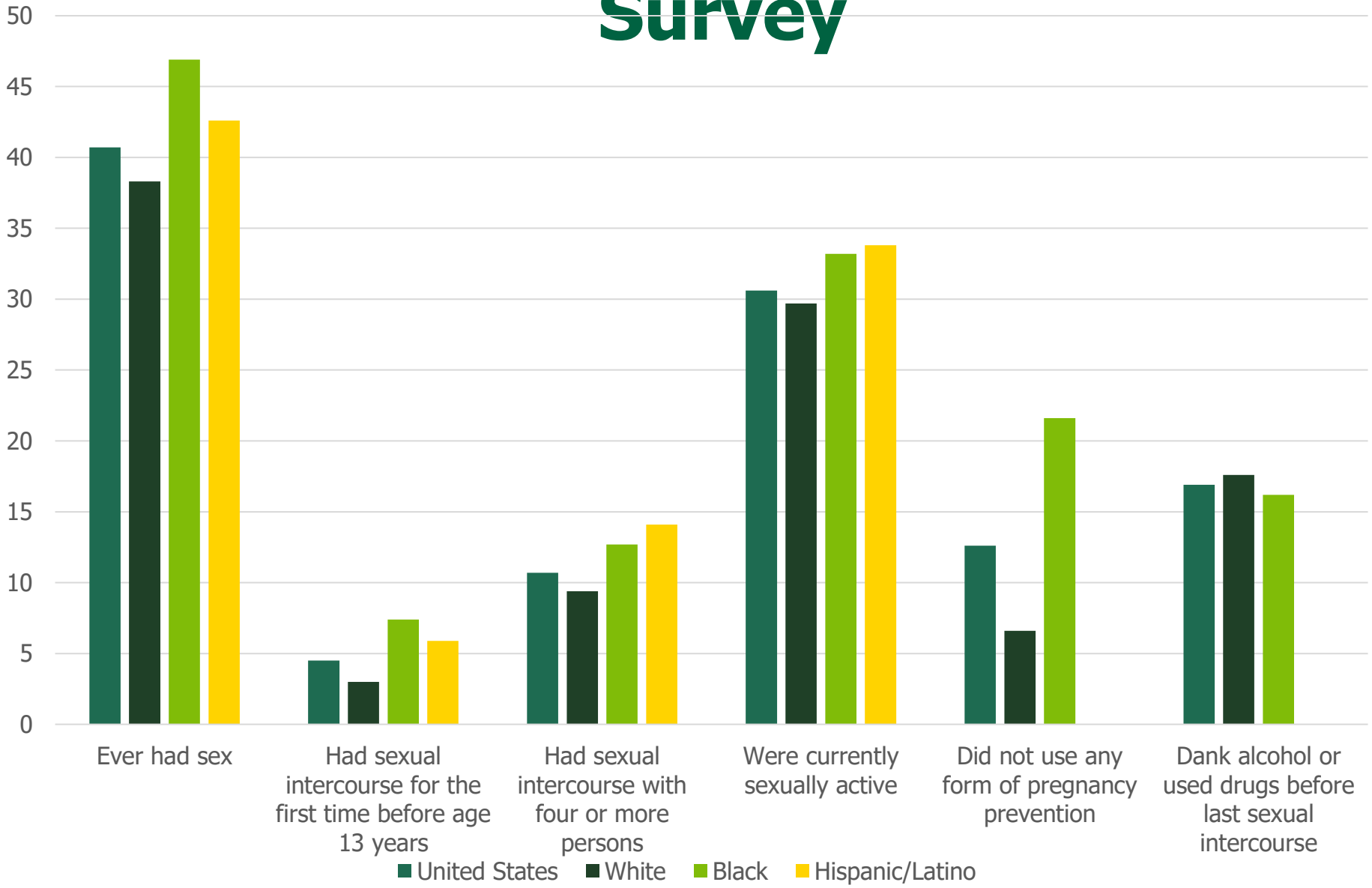
What are STD and STIs?

- STDs= sexually transmitted diseases
- STIs= sexually transmitted infections

- All STDs start with an infection (STIs), but not all STIs lead to a disease (STD)
- Examples:
  - Gonorrhea, Chlamydia, Trichomonas, Genital Herpes, HIV, Syphilis, HPV
  - There are more than 60 different infections that are transmitted by sex

- What about pregnancy?

CDC Youth Risk Behavior Surveillance Survey



https://nccd.cdc.gov/Youthonline/App/Results

Teen Pregnancy-2019

- 5th highest Teen Birth rate among 15 to 19 year olds
  - 25.6 births per 1000 women (U.S. rate is approximately 17 births per 1000 women)
  - 74% are among 18 and 19 year olds
  - 16% are among teens that already have children
- 11th highest Teen Pregnancy rate among 15 to 19 year olds

*** Teen pregnancy rate has declined by 63% over the past 30 years.

- 49th in Rate of Decline for Teen Birth Rate

Teen Births

2%
CHANGE IN TEEN BIRTH RATE FROM 2018

-65%
CHANGE IN TEEN BIRTH RATE FROM PEAK YEAR 1991

TEEN BIRTH RATE, BY RACE/ETHNICITY	2019	CHANGE, 1991 - 2019
Non-Hispanic White	20	-65%
Non-Hispanic Black	33	-70%
Hispanic	49	3%

https://worldpopulationreview.com/state-rankings/teen-pregnancy-rates-by-state
Power to decide https://powertodecide.org/what-we-do/information/national-state-data/alabama

Consequences of an Adolescent Pregnancy

- Socioeconomic disadvantage
- 60% of teen moms don't finish high school
- 2% of teen moms finish college by 30
- Those with more than 1 child are significantly less likely to return to work or school
- At risk for repeat teen pregnancy/birth
- At risk for abuse
- Cost is $9.4 million more than if they were 20 or 21 years old

ACOG
The American College of Obstetricians and Gynecologists

Chlamydia

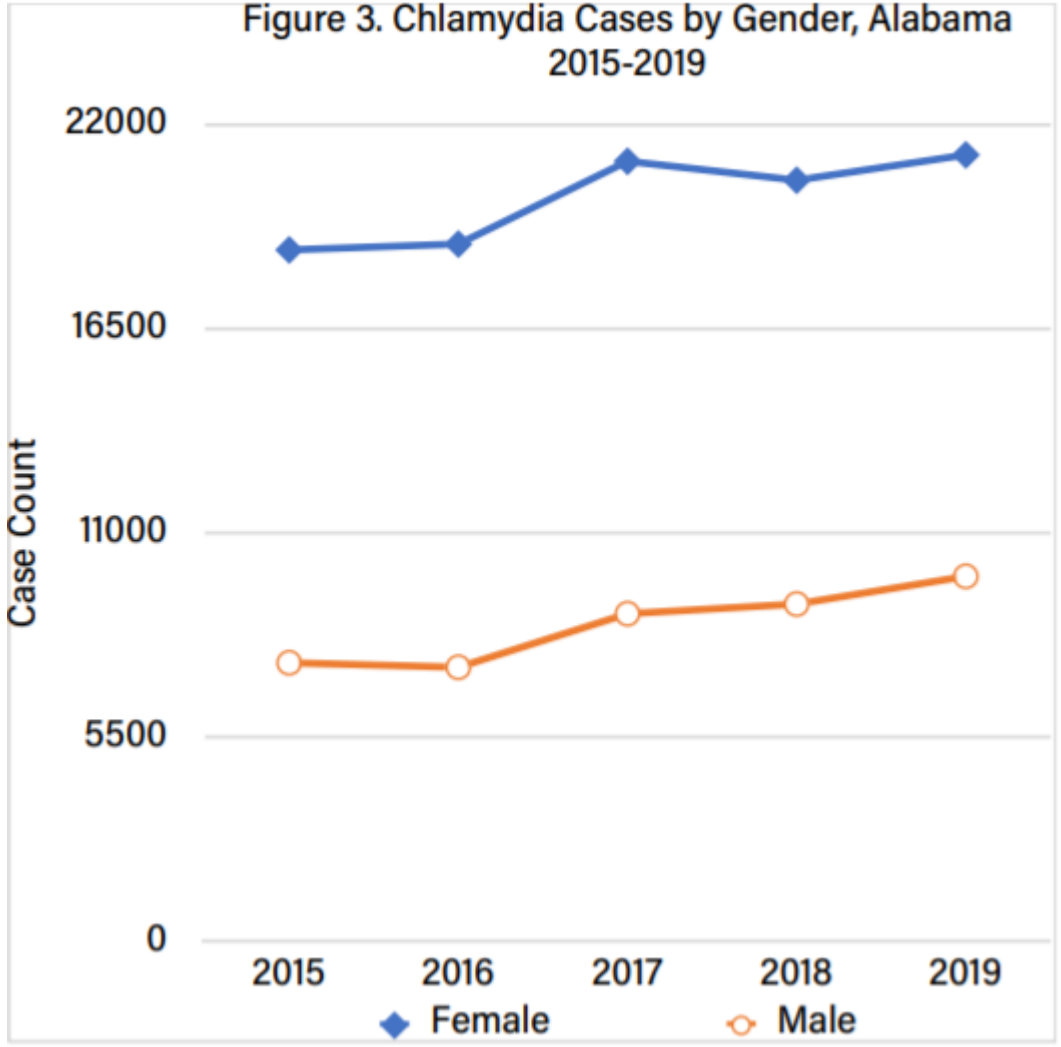


Table 2. Chlamydia Case Rate by Race/Ethnicity and Gender, Alabama 2015-2019

Race/Gender	2019	
	Cases (%)	Rate
Black Female	8,177 (26.3)	1175.1
Black Male	4,422 (14.2)	734.7
White Female	2,929 (9.4)	178.8
White Male	1,150 (3.7)	73.6
Latino Female	508 (1.6)	480.7
Latino Male	149 (0.5)	126.7
Total	31,145	635.2

*Rate is per 100,000 populat

https://www.alabamapublichealth.gov/std/assets/std_annualreport_2019.p

Gonorrhea

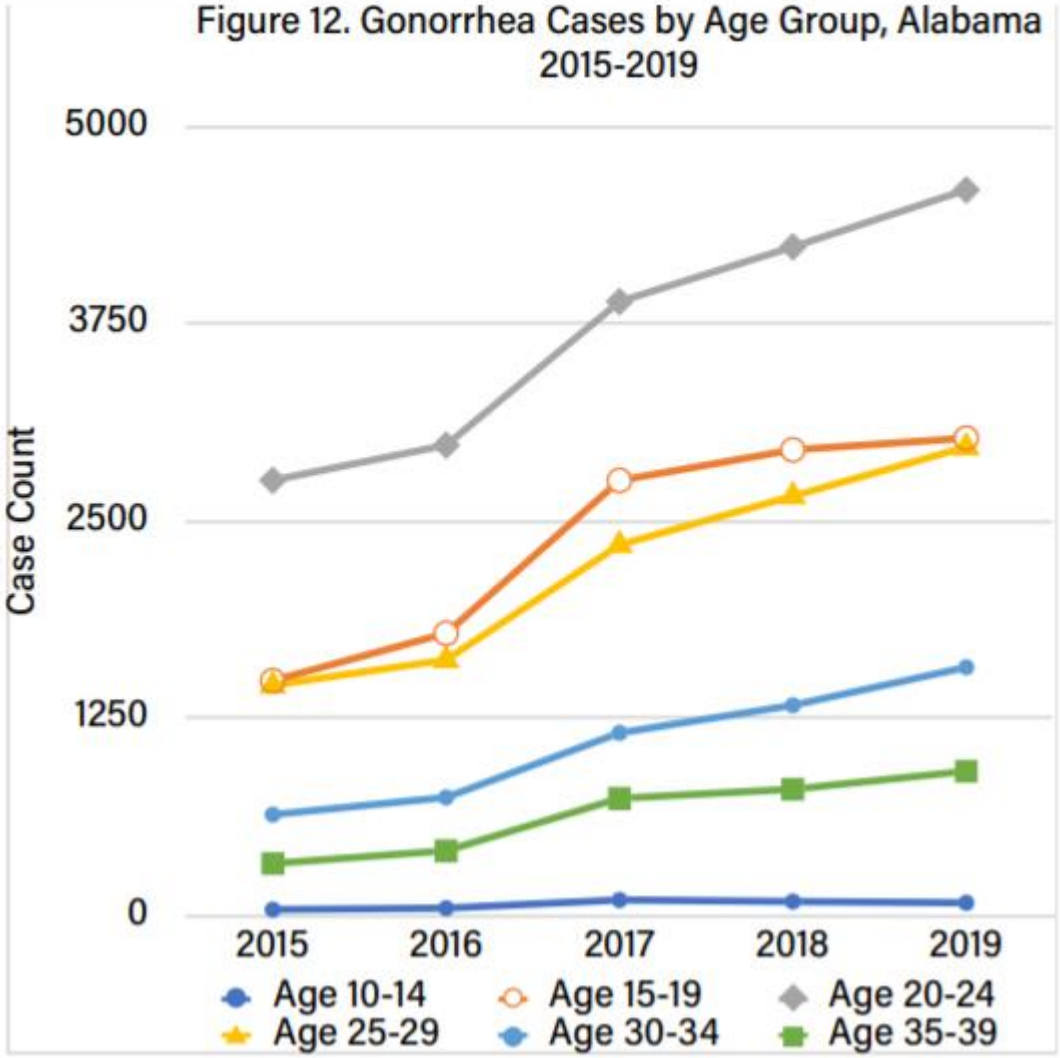


Table 4. Gonorrhea Case Rate by Race/Ethnicity and Gender, Alabama 2015-2019

	2019	
	Cases (%)	Rate
Black Female	3079 (21.3)	442.5
Black Male	3796 (26.3)	630.1
White Female	1197 (8.3)	73.1
White Male	868 (6.0)	55.5
Latino Female	59 (0.4)	55.8
Latino Male	63 (0.4)	53.6
Total	14436	294.4

https://www.alabamapublichealth.gov/std/assets/std_annualreport_2019.pdf

Syphilis

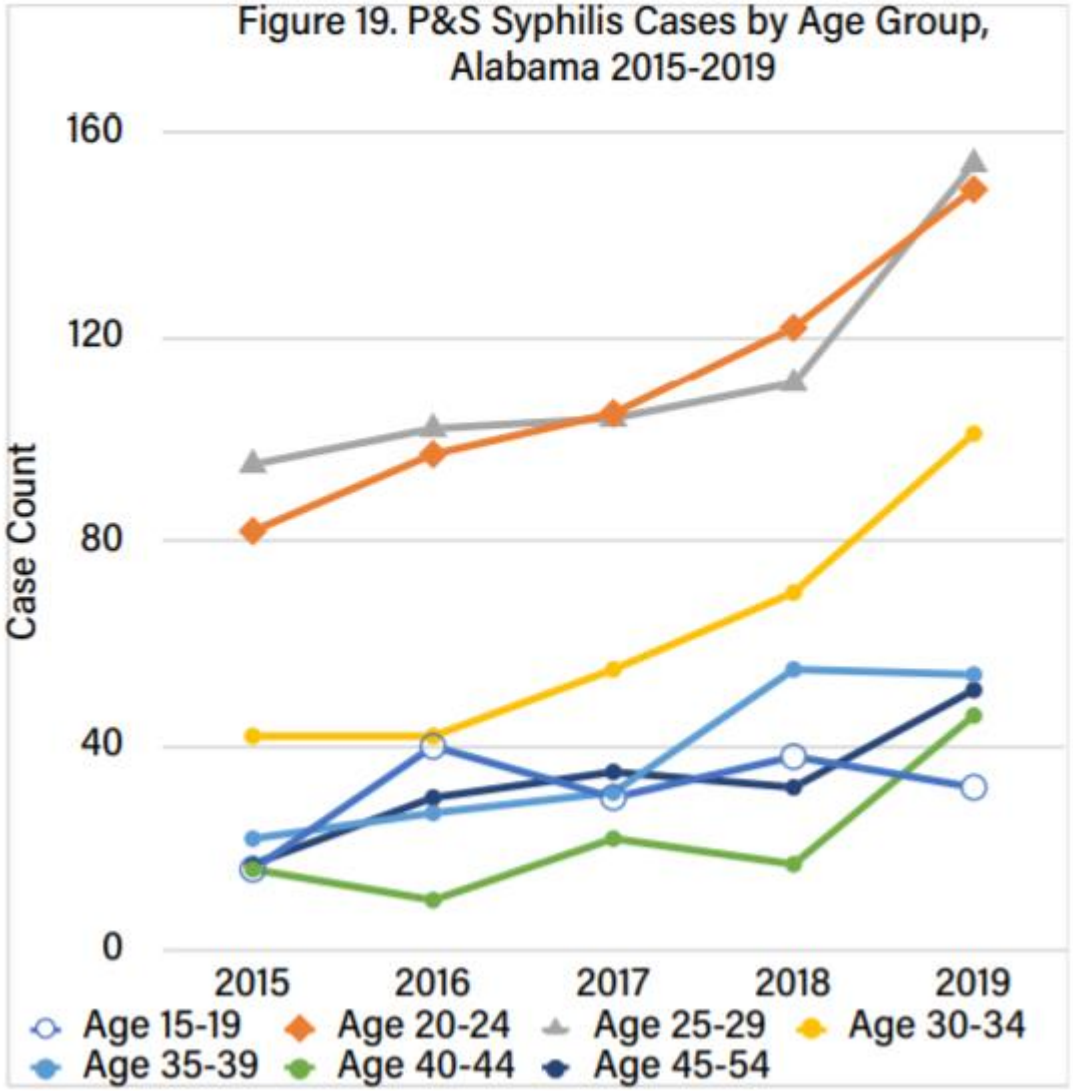
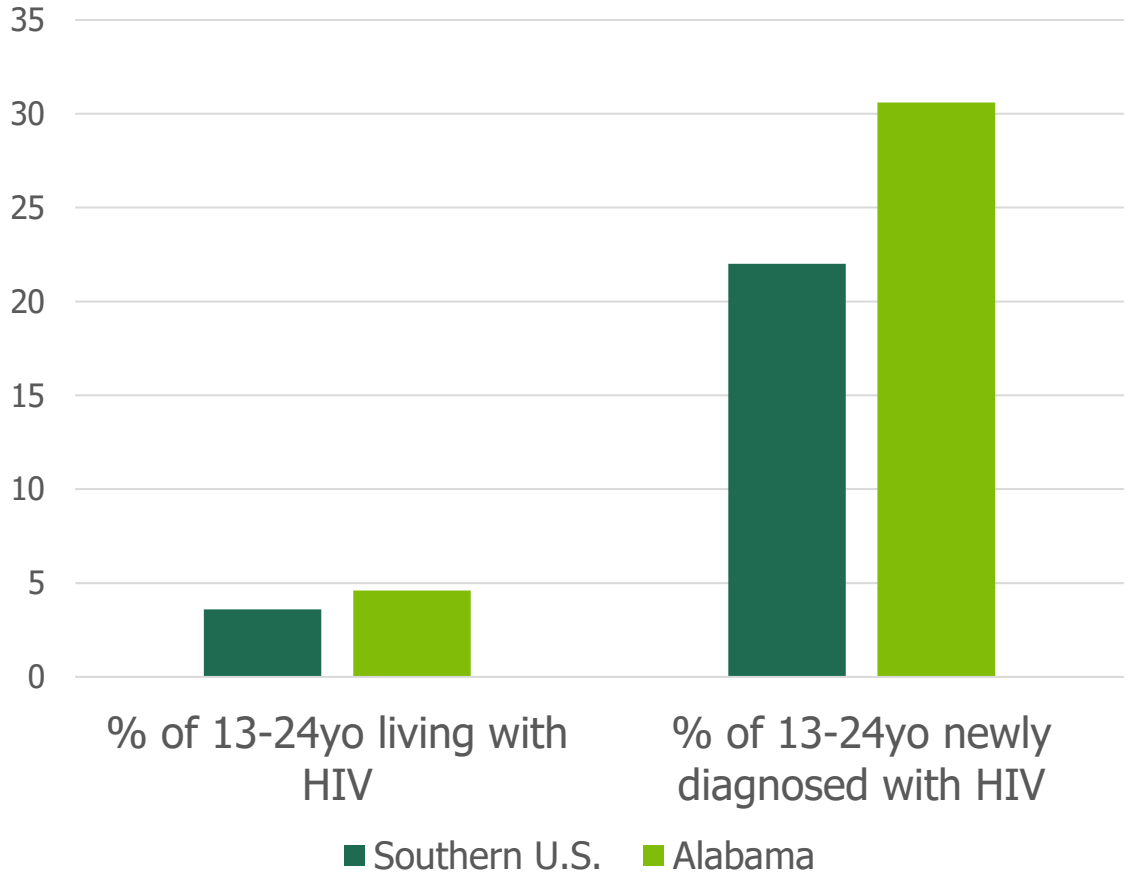


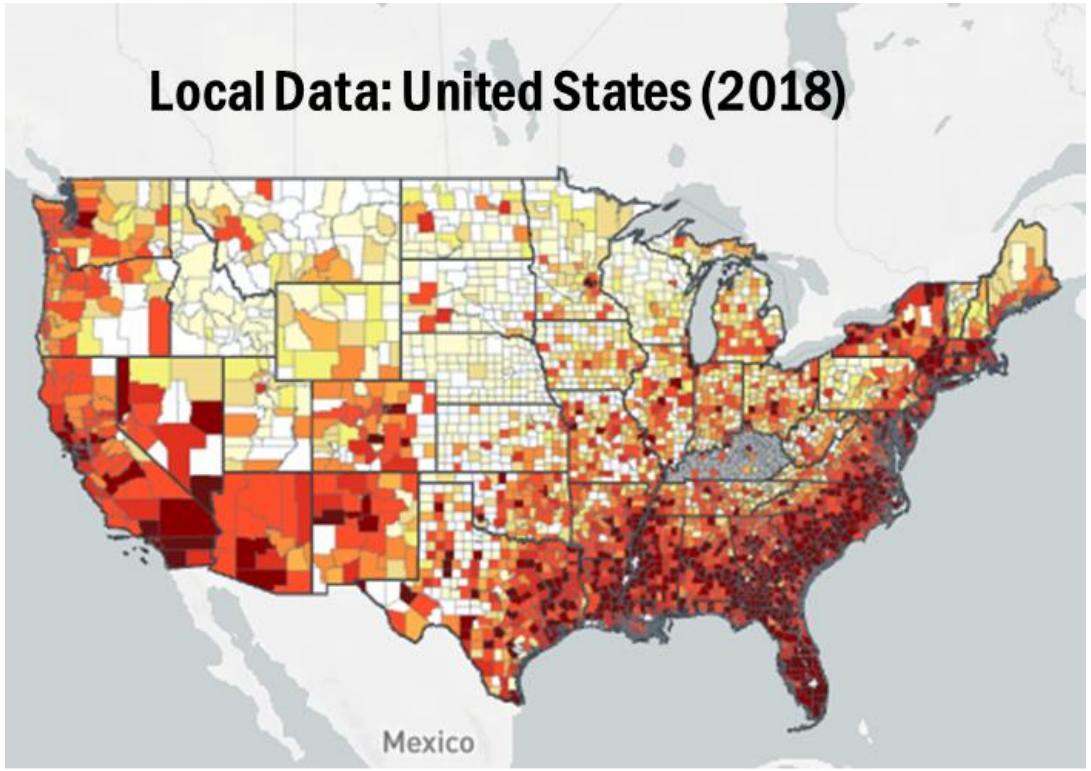
Table 8. EL Syphilis Case Rate by Race/Ethnicity and Gender, Alabama 2015-2019

	2019	
	Cases (%)	Rate
Black Female	88 (16.1)	12.76
Black Male	277 (50.7)	46.0
White Female	41 (7.5)	2.5
White Male	111 (20.3)	7.1
Latino Female	4 (0.7)	3.8
Latino Male	11 (2.0)	9.4
Total	546	11.1

https://www.alabamapublichealth.gov/std/assets/std_annualreport_2019.pdf

HIV in Adolescents in Alabama Compared with the U.S., 2018

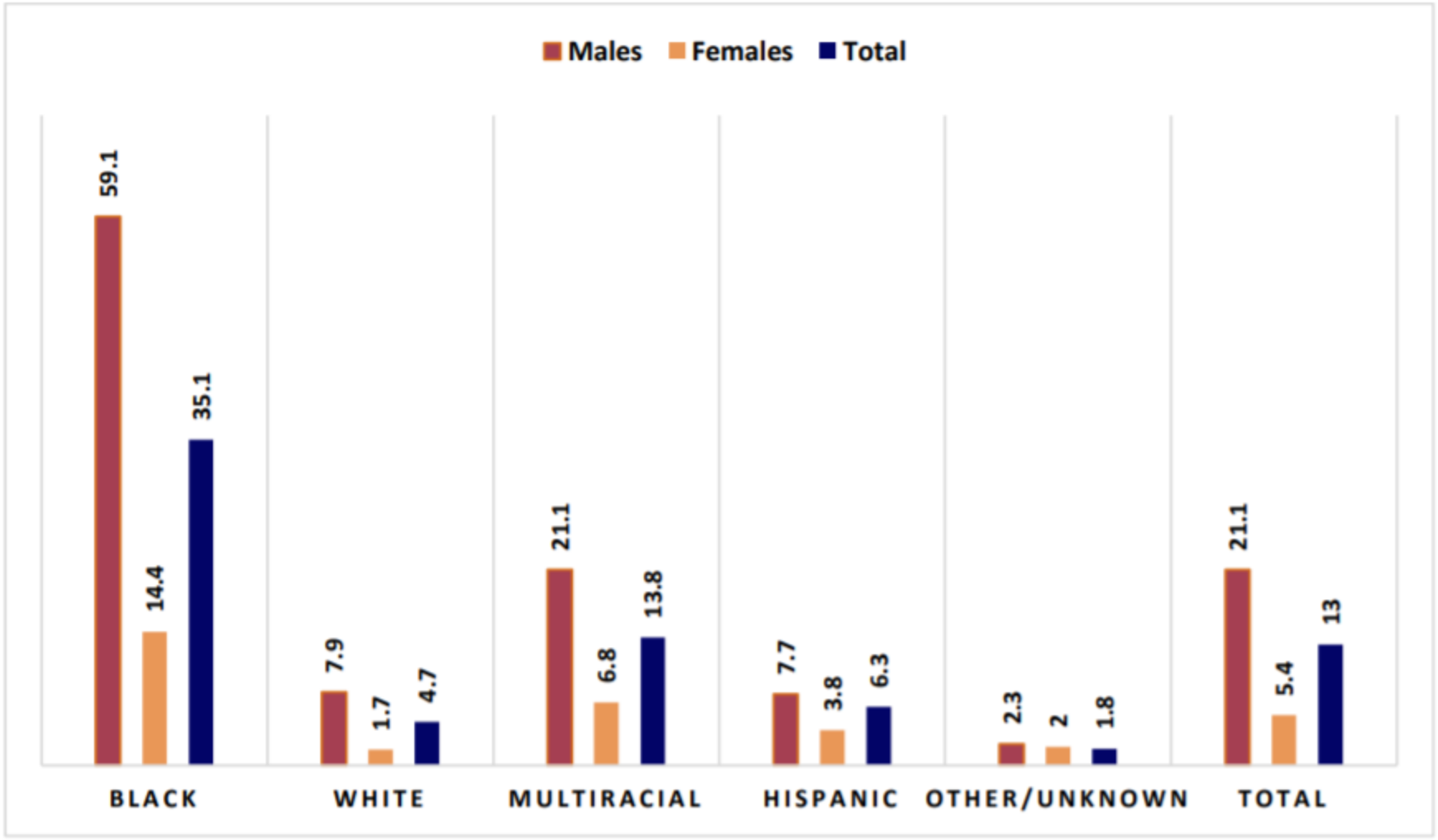




Source: https://aidsvu.org/local-data/united-states/

AIDSvu.org

Figure 6. Rate of Newly Diagnosed HIV Cases by Race, Ethnicity, and Birth Sex, Alabama 2019



In 2019,

- Rate in Black males was 8x White males, while that – rate in

- Black females was 9x White females

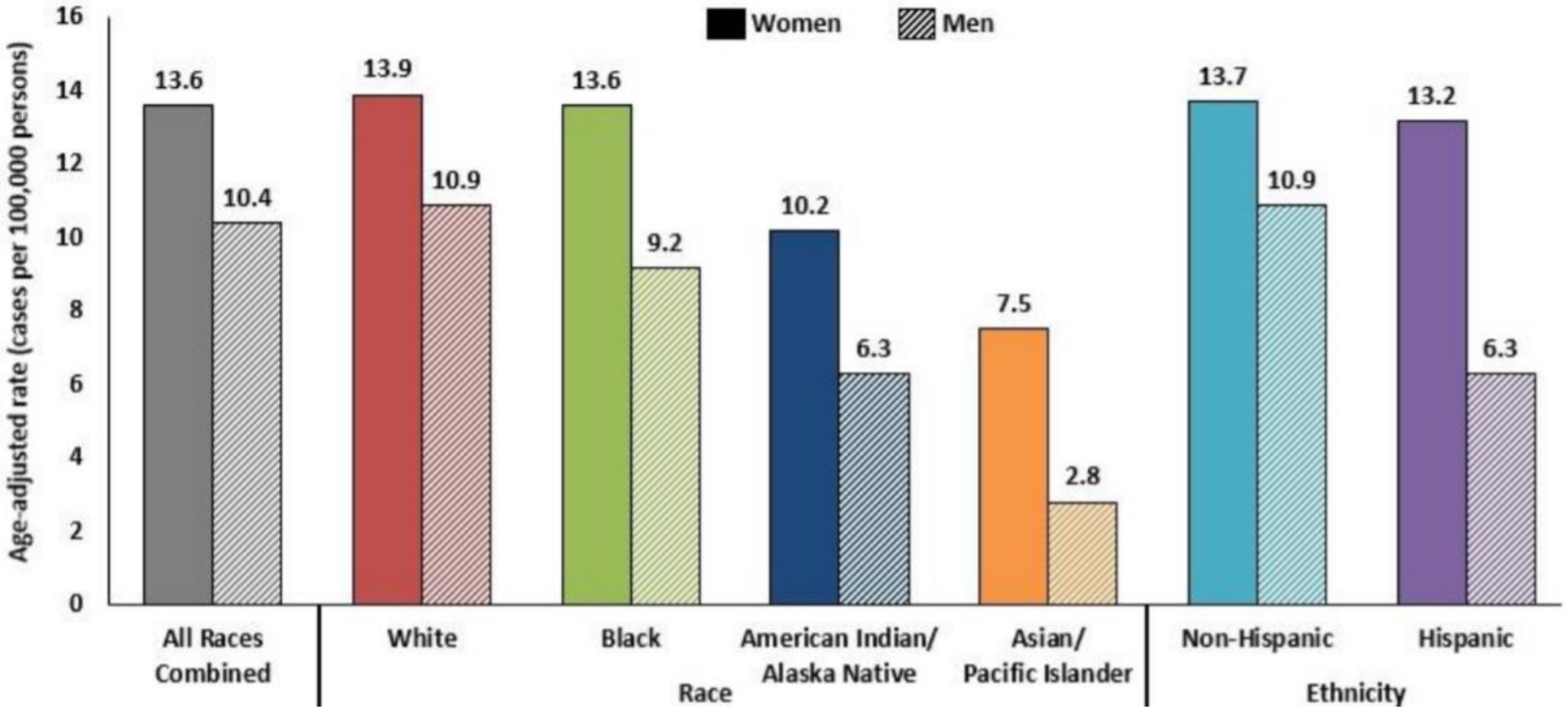
- The HIV incidence among Blacks (35.1) is ~3x that of the total state rate (13).

Diagnoses in Our Own Backyard: UAB Family Clinic

UAB Family Clinic HIV Incidence among Adolescents and Young Adults, January 1, 2019- May 31, 2021			
	HIV Incidence	HIV Incidence (Women)	HIV Incidence (Black Women)
Total Adolescents and Young Adults (13-21yo)	75	25	23
13-18	12	0	0
19-21yo	16	5	5
22-30	47	20	18

- Ryan White Part B and D funded HIV clinic
  - Care for perinatally-exposed, women, infants, children
  - Care for adolescent young men until age 30 and women through end of life
  - Provide care to PLWH throughout the state

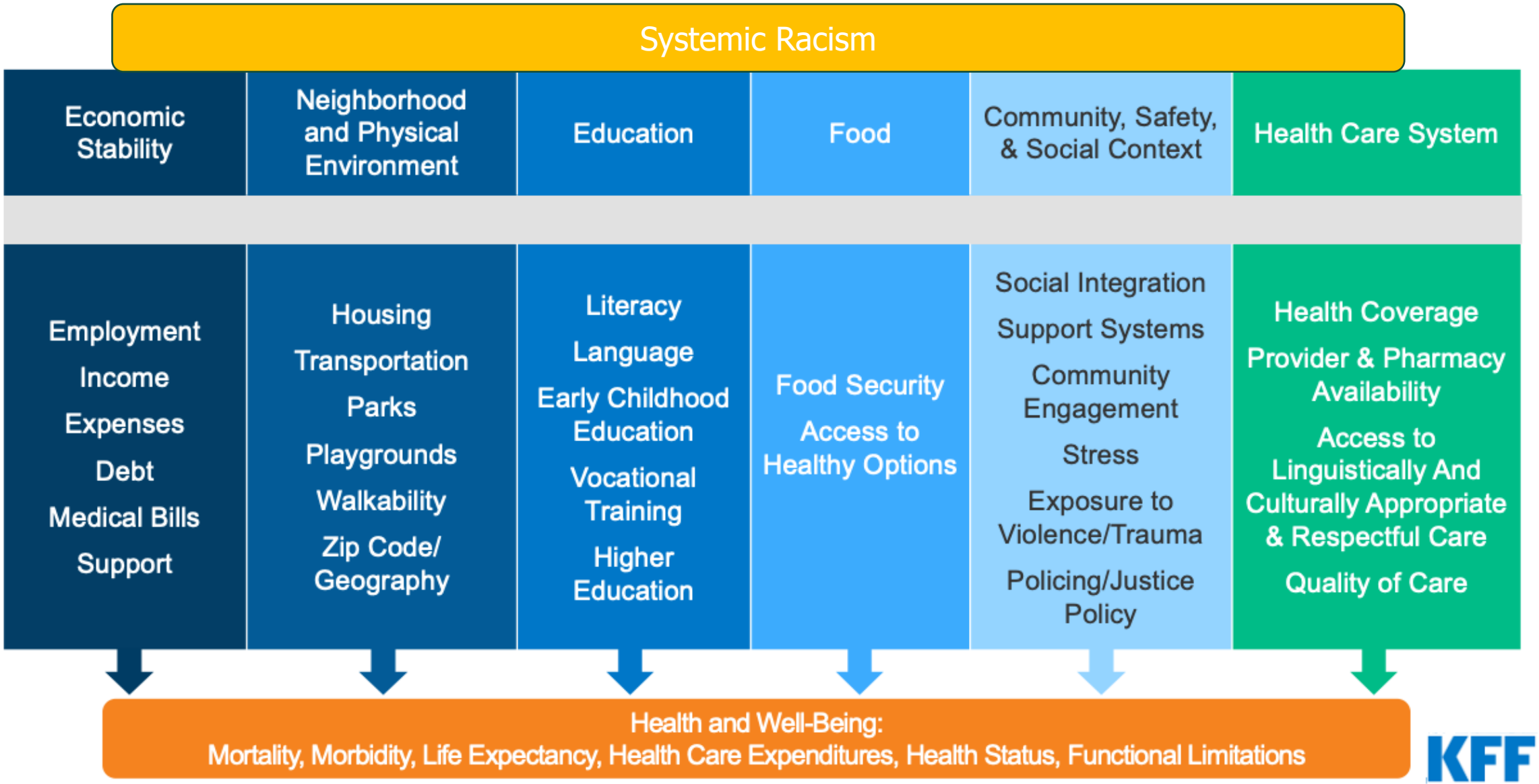
HPV-Associated Cancer Rates by Sex, Race, and Ethnicity, United States, 2011–2015



Exploration of Barriers that Lead to Disparities

Figure 1

Social Determinants of Health



Alabama Specific Barriers

- Health Care Coverage/ Absence of Medicaid Expansion
- Access to accurate information about sexual health
- Access to providers willing and able to prescribe
- Low provider and adolescent recognition of risk
- Distance from health care settings
- Transportation systems (under developed public transportation)
- Stigma
  - Individual
  - Community
  - Healthcare provider

STI Prevention

Prevention Tools

- Abstinence
- Comprehensive Sexual Education
- Barrier Protection (e.g. condoms, dental d
- Pregnancy Prevention
  - Birth Control
- STI Prevention
  - Regular STI testing
- HIV Prevention
  - Regular STI testing
  - nPEP
  - Treatment as Prevention and U=U
  - Pre-exposure prophylaxis for HIV (PrEP)

Sex Education

- Sexual education **is NOT required** in grades 5-12 in Alabama
- Highlights from H.B. 385
  - "(1) Abstinence from sex is the only completely effective protection against unintended pregnancy, sexually transmitted diseases infections, and acquired immune deficiency syndrome (AIDS) human immunodeficiency virus (HIV) when transmitted sexually."
  - (2) Abstinence from sex outside of marriage is the expected social standard…
  - (b) Course materials and instruction that relate to sexual health education or sexually transmitted infections should be age-appropriate and medically accurate." (and include)
    - Emphasis on abstinence
    - Importance of delaying sexual debut
    - Statistics about contraception and condoms for pregnancy, STI, and HIV prevention
    - Emphasize the financial responsibilities of having a child
    - Information on sexual abuse
    - Information on how to "cope" with unwanted abuses and resist unwanted exploitation
    - Comprehensive instruction in parenting skills and responsibilities

Our Language Matters

- For many adolescents, their "risk" is not based solely on their own actions, but on the actions or others
  - The term "risk" does a disservice to our sexual health discussions
- Consider combining motivational interviewing with sex positive language
  - Start with asking them about their short and/ long term goals
  - Discuss whether they enjoy sex and identify barriers to enjoying sex
  - Find ways to help them feel empowered
- Praise them for all of the positive steps they are taking that show they care about their health

Comprehensive Sexual Education

- Rights-based approach
- Holistic view of sexuality
  - Part of social and emotional development
- Acquire accurate information on sexual and reproductive rights, information to dispel myths, and references to resources and services.
- Develop life skills including critical thinking, communication and negotiation, self-development and decision-making; sense of self; confidence; assertiveness; ability to take responsibility; ability to ask questions and seek help; and empathy.
- Nurture positive attitudes and values, including open-mindedness, respect for self and others, positive self-worth/esteem, comfort, nonjudgmental attitude, sense of responsibility, and positive attitude toward their sexual and reproductive health

GUTTMACHER INSTITUTE

The Abstinence-Only (No-Sex) Paradigm

- Provides a code, not empowerment
- Gives limited tools for navigating relationships other than marriage
- Makes sex between teens hard to discuss when it does happen
- Despite investment of federal funds, not shown to be effective

PHYSICIANS FOR REPRODUCTIVE HEALTH

Sex-as-Risk-Taking (Harm Reduction) Paradigm

- Makes sex a disease rather than part of development
- Does not distinguish healthy sexual expression from sexual risk
- Instills fear, not sense of mastery/control
- Leaves out the pleasurable and relational contexts of sexuality

PHYSICIANS FOR REPRODUCTIVE HEALTH

Tips for Having Sex-Positive Conversations with Teens

1. **Start having conversations about sexual health more often, earlier on, and with young people.**
2. **Understand that sexual health is NOT the absence of infection.**
3. **Reconsider the language you use to identify or describe a person who has an STI.**
    - use person-centered language
    - use gender neutral language
    - use medically accurate language
    - avoid words such as “clean” and “dirty”
4. **Center the stories and experiences of people who have STIs.**
    - STIs are not because of bad behavior
    - STIs are because of absence of discussions and language
5. **Remember STIs are common**
6. **Encourage conversations around safer sex, STIs, and testing with your sexual partner(s) and within your social circles, too.**
    - show empathy
    - call people “in” when they make jokes

SEICUS: Sex Ed for Social Change

Consent

People Younger Than 18 May Consent To:			
STATE	CONTRACEPTIVE SERVICES	STI SERVICES	PRENATAL CARE
Alabama	All†	All*	All

Minors' Access to STI Services			
STATE	MINORS MAY CONSENT TO STI SERVICES	CONSENT TO HIV TESTING AND TREATMENT INCLUDED	PHYSICIAN MAY BUT IS NOT REQUIRED TO INFORM PARENTS
Alabama	12 years	X	X

Guttmacher.org/state-policy/explore

Contraception Options

HOW WELL DOES BIRTH CONTROL WORK?

Really, really well


The Implant (Nexplanon)


IUD (Skyla)

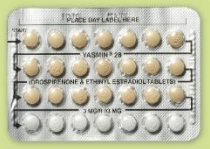

IUD (Mirena)

IUD (ParaGard)


Sterilization, for men and women

Works, hassle-free, for up to... 3 years | 3 years | 5 years | 12 years | Forever

Okay


The Pill


The Patch


The Ring


The Shot (Depo-Provera)

For it to work best, use it... Every. Single. Day. | Every week | Every month | Every 3 months

Not so well


Withdrawal


Diaphragm


Fertility Awareness

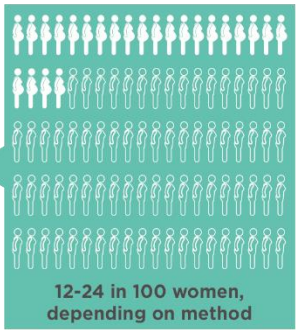
Condoms, for men and women

For each of these methods to work, you or your partner have to use it every single time you have sex.

What is your chance of getting pregnant?


Less than 1 in 100 women


6-9 in 100 women, depending on method

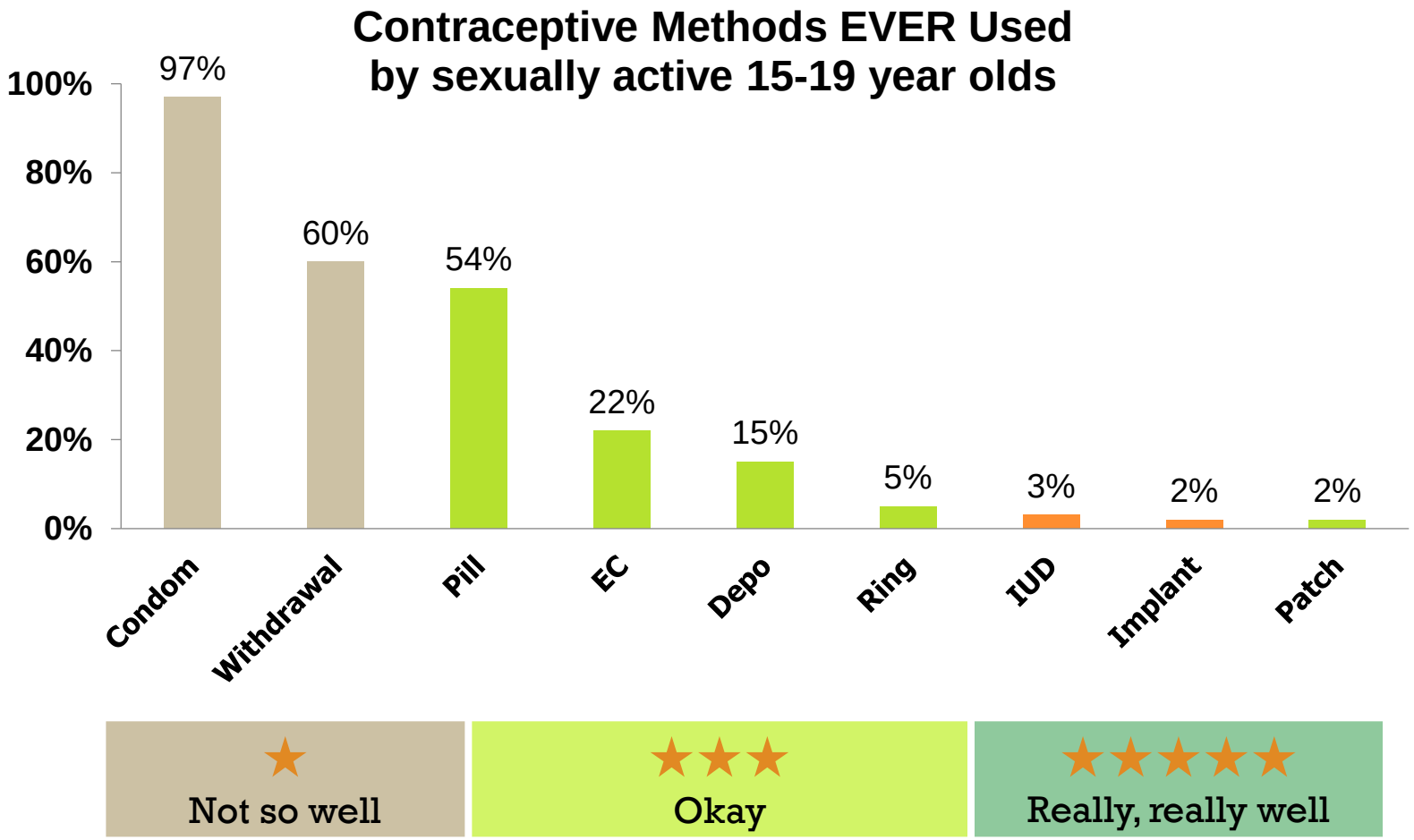

12-24 in 100 women, depending on method

FYI, without birth control, over 90 in 100 young women get pregnant in a year.

BEDSIDER Bedsider.org

Bixby Center for Global Reproductive Health

What are Teens Using for Contraception?

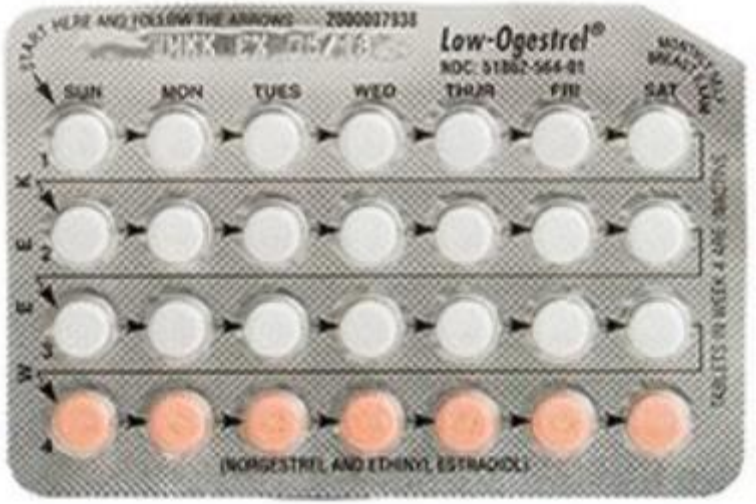


PHYSICIANS FOR REPRODUCTIVE HEALTH

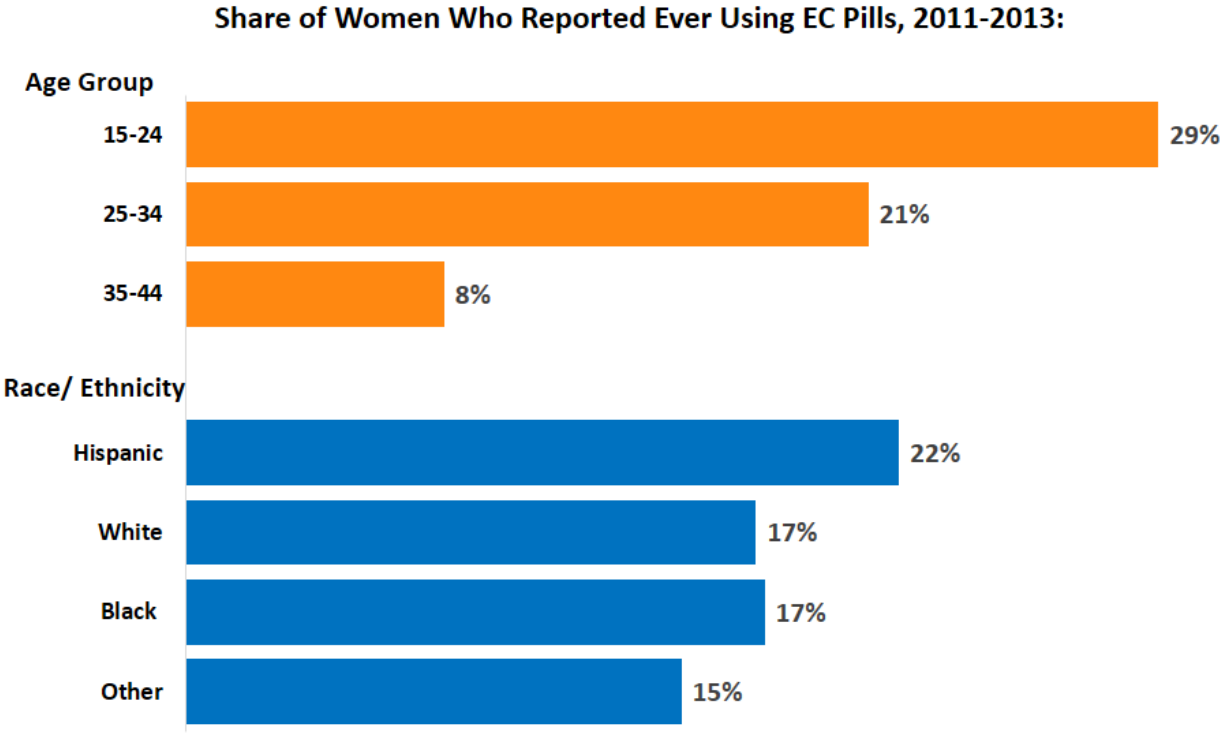
NCHS Data Brief #209, July 2015 (CDC NSFG 2011-2013)

Emergency Contraception (EC)

- The use of hormonal or non-hormonal methods AFTER sex to prevent pregnancy
  - More specifically:
    - Decrease UNWANTED and UNINTENDED pregnancies
    - Decrease abortions
    - Decrease maternal morbidity and mortality associated with unsafe abortions
- It is not an abortifacient
  - i.e. if a fertilized egg has implanted in the uterus→ it DOES NOT cause abortion



Use of Emergency Contraception Pills, by Age and Race/ Ethnicity



NOTE: Among women who ever had sex, ages 15-44
SOURCE: Kaiser Family Foundation analysis of 2011-2013 National Survey of Family Growth

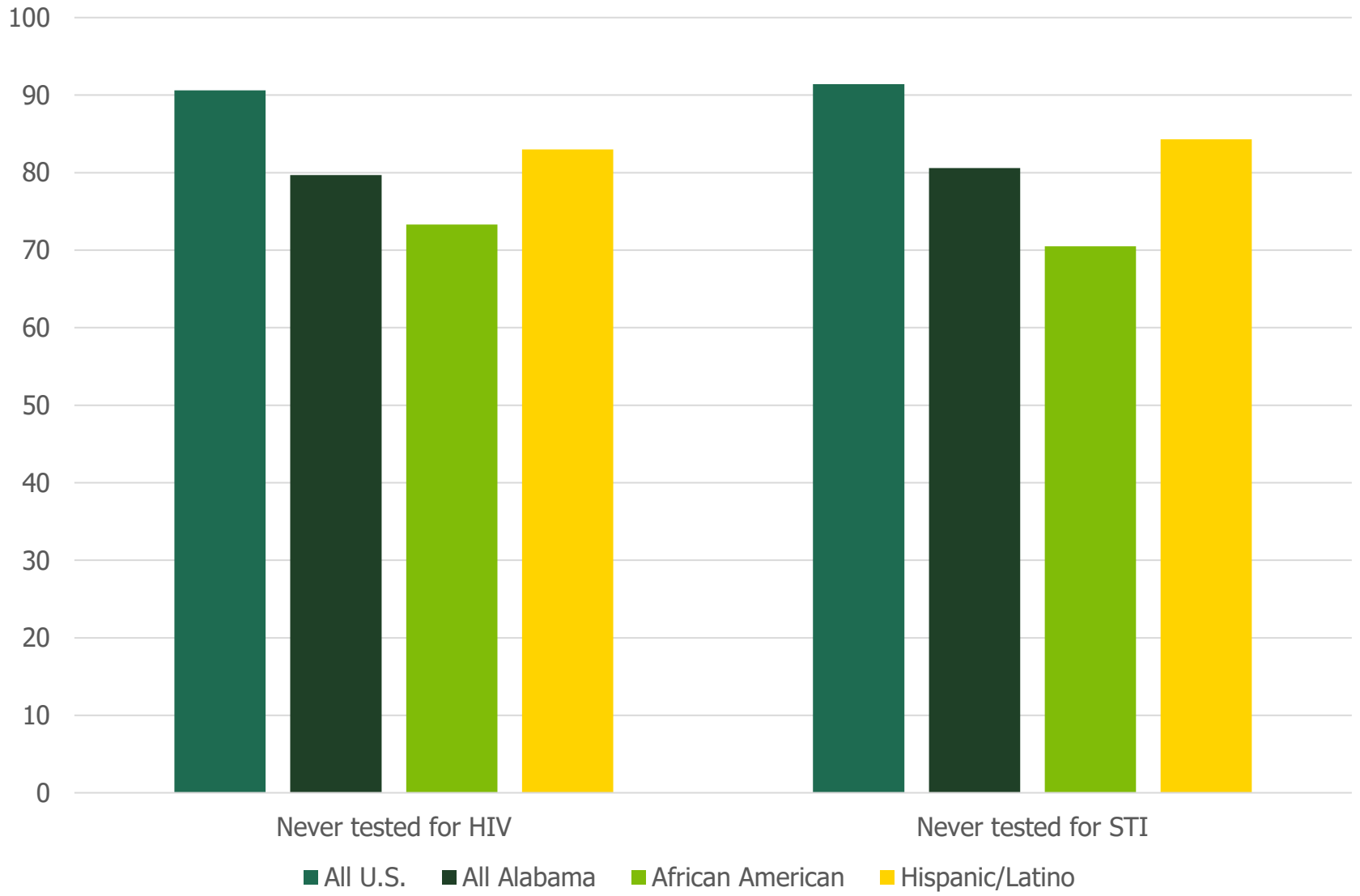
THE HENRY J. KAISER FAMILY FOUNDATION

Recommended STI Screening Guidelines

	Chlamydia	Gonorrhea	Syphilis	Trichomonas	Herpes	HIV
MSM	Annually Higher-risk→ every 3-6 mo	Annually Higher-risk→ every 3-6 mo	Annually Higher-risk→ every 3-6 mo		Consider type-specific testing if there is an undiagnosed GU infection	At least annually in MSM*
Women younger than 25	All (test of reinfection)	All (test of reinfection)		Those at high risk Those in higher prevalence areas	Consider type-specific testing for those coming for STI evaluation	All women 13-65yo At STI evaluation or treatment
Men	If high prevalent area Higher risk population				Consider type-specific testing for those coming for STI evaluation	All men 13-65yo At STI evaluation or treatment
Special Populations						
People living with HIV	At least annually (frequency depends on risk)	At least annually (frequency depends on risk)	At least annually (frequency depends on risk)	All at entry Annually	Consider type-specific testing for those coming for STI evaluation	
Pregnant Women	All (test of cure, test of reinfection, 3rd trimester)	All (test of reinfection 3 months after treatment)	All at first prenatal visit. Repeat in 3rd trimester and at delivery if at high risk		Routine Testing not recommended at this time	All at first prenatal visit Retest for those at higher risk

CDC.GOV/STD

Percentages of Adolescents that have Never Been Screened for HIV or STIs by Race/Ethnicity, 2019



https://nccd.cdc.gov/Youthonline/App/Results

HIV Prevention Medications

- Non-occupational Post Exposure Prophylaxis
  - 2 pills to take if possibly exposed to someone living with HIV (1 month course)
- Treatment as Prevention
  - If you take your medications and have an UNDETECTABLE viral load for 6 months-→ you CANNOT give someone HIV via Sex
- Undetectable=Untransmittable

Gosbell IB, et al. 2019

Pre-exposure Prophylaxis for HIV (PrEP)

- FDA-approved
- USPSTF grade A recommendation
- Pill proven to reduce a person's risk of acquiring HIV
  - Tenofovir disoproxil fumarate (TDF) + emtricitabine (FTC) 300mg/200mg **(Truvada®)**
    - FDA approved for
      - Men and women including trans individuals
      - At least 35kg
    - Available as **GENERIC**
  - Tenofovir alafenamide(TAF) + emtricitabine (FTC) 25mg/200mg **(Descovy®)**
    - FDA approved for
      - Individuals engaging in rectal intercourse (**Has NOT been shown to be effective in vaginal intercourse)**
      - At least 35kg
  - Injectable Cabotegravir 600mg (3ml) **(Apretude®)**
    - FDA approved 2021 for
      - Men and women including trans individuals
      - At least 35kg

Centers for Disease Control and Prevention: US Public Health Service: Preexposure prophylaxis for the prevention of HIV infection in the United States—2017 Update: a clinical practice guideline. https://www.cdc.gov/hiv/pdf/risk/prep/cdc-hiv-prep-guidelines-2017.pdf. Published March 2018.

CDC Recommendations for PrEP

Men who have Sex with Men	Heterosexual Men and Women	Injection Drug Use
HIV-negative	HIV-negative	Use of injection drugs
Anal sex without condoms in past 6 months	Infrequent condom use with partners with unknown HIV status	Participation in methadone or medication based substance use program
Bacterial STI (gonorrhea, chlamydia, syphilis) in past 6 months	Bacterial STI (gonorrhea, syphilis) in past 6 months	
Partner living with HIV	Partner living with HIV	Injection partner with HIV
Engage in transactional sex		

Indications for PrEP among 15 to 21 Year Olds Presenting for Routine Preventative Health Care at an Alabama Adolescent Health Clinic

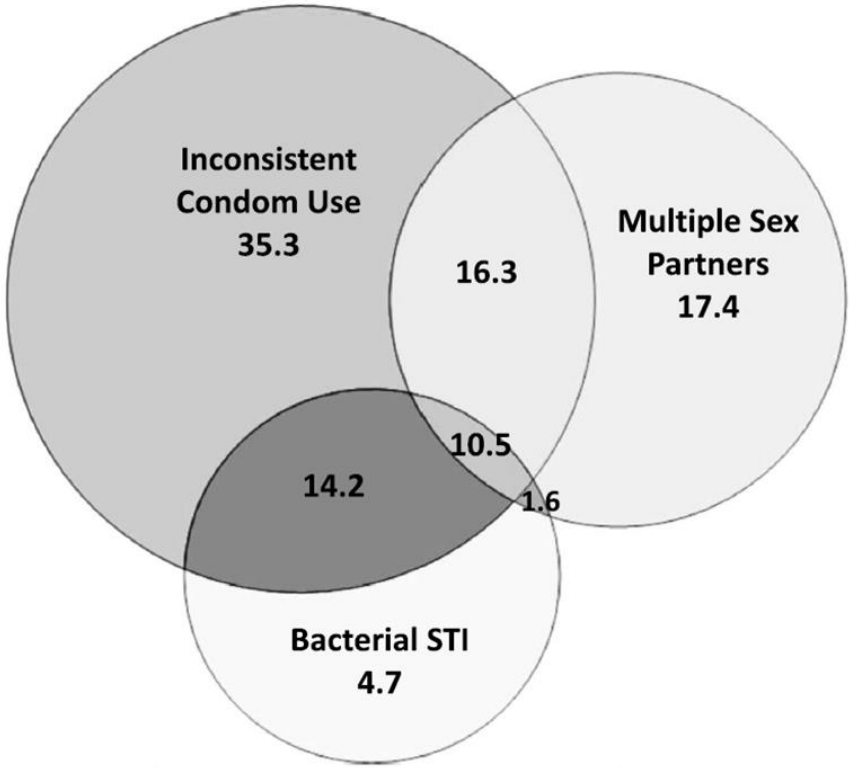


Figure 1. Indications for PrEP (N = 191): This figure represents the percent of patients with PrEP indications (inconsistent condom use, multiple sex partners, bacterial STI, commercial sex work, injection drug use, and HIV positive partner). Each circle represents 1 criterion. Areas of overlap represent the percent of patients who had more than 1 criterion. There were no individuals with history of commercial sex work, injection drug use, and HIV-positive partners, and therefore, there are no circles for these indications.

~80% of this population consisted of Black young women

44% had a PrEP indication

PrEP Prescriptions= 0

Hill et al. STD 2019

Adherence and Social Support for PrEP

- Adherence to PrEP has been shown to be low in teens without intervention[Hosek 2013]
- Technology (social media, cell phone reminders, gaming apps) has been shown to improve adherence in some populations
- Social support may be another option
  - one study found 98% of adults would support their teen on PrEP [Hill 2020]

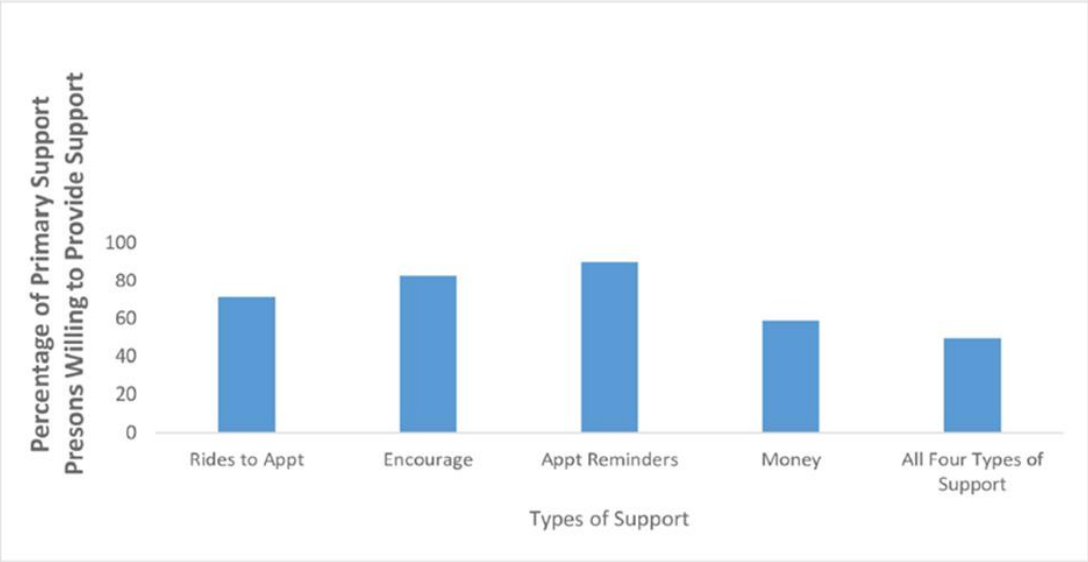


Fig 2. Manner in which primary support persons are willing to support AYAs on PrEP. Fig 2 illustrates ways in which primary support persons were willing to support AYAs on PrEP (including combinations of types of support). Each manner of support (e.g. transport) includes the percentage of primary support persons who were willing to provide that manner of support by itself or in combination with any of the other types of support.

Hill SV, et al, PLOS One 2020

HPV Vaccine Recommendation

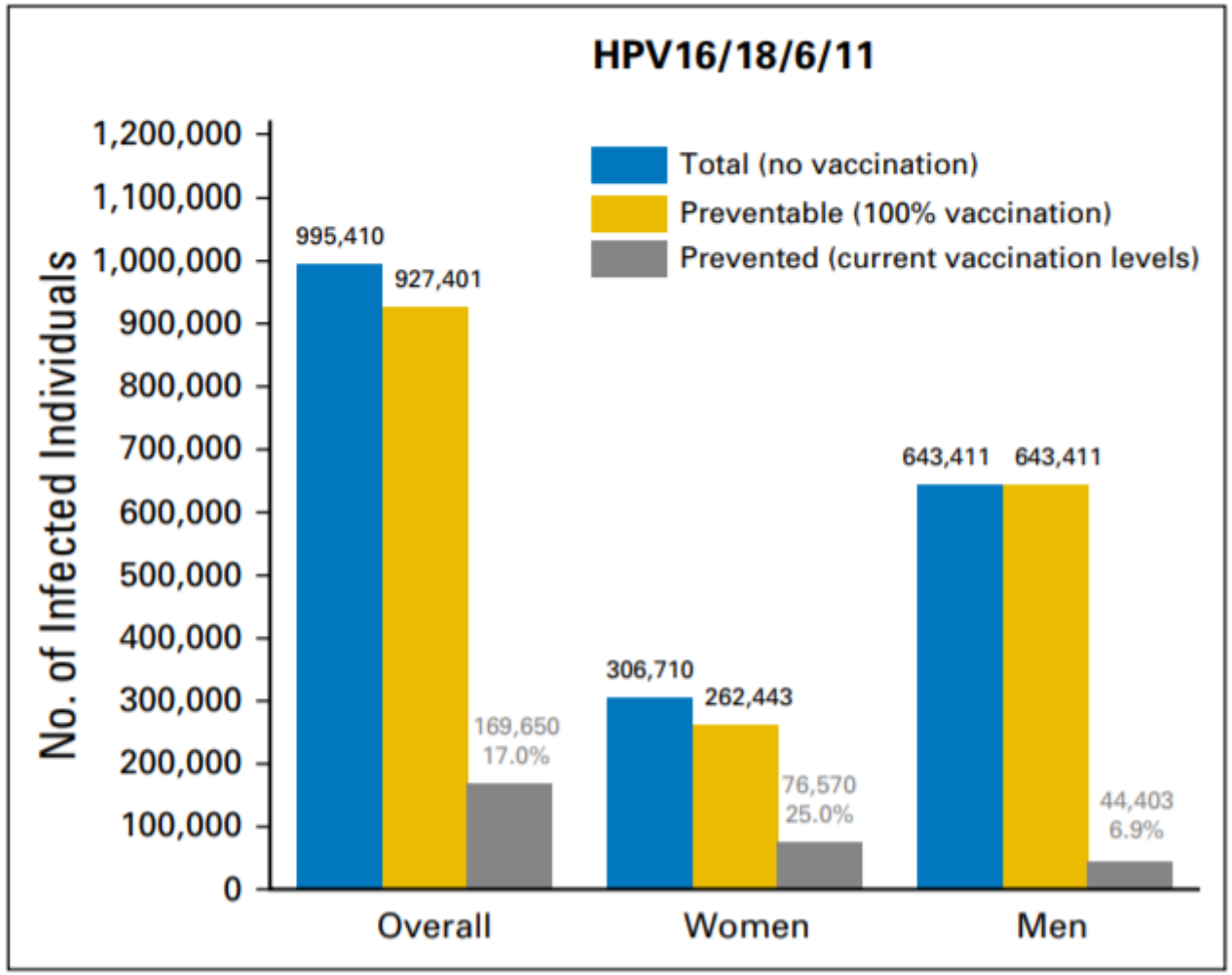
CDC recommends routine vaccination at age 11 or 12 years to prevent HPV cancers

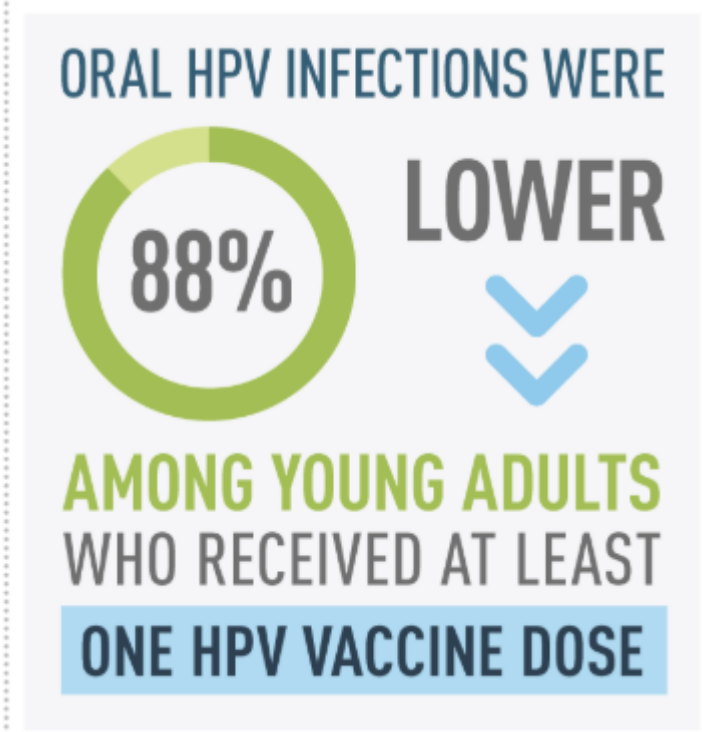
- The vaccination series can be started at age 9 years
- Two doses of vaccine are recommended*
- The second dose of the vaccine should be administered 6 to 12 months after the first dose.

*If series initiated before age 15

Meites et al. MMWR. 2016.

HPV Vaccine Lowers Rates of Oral Cancer

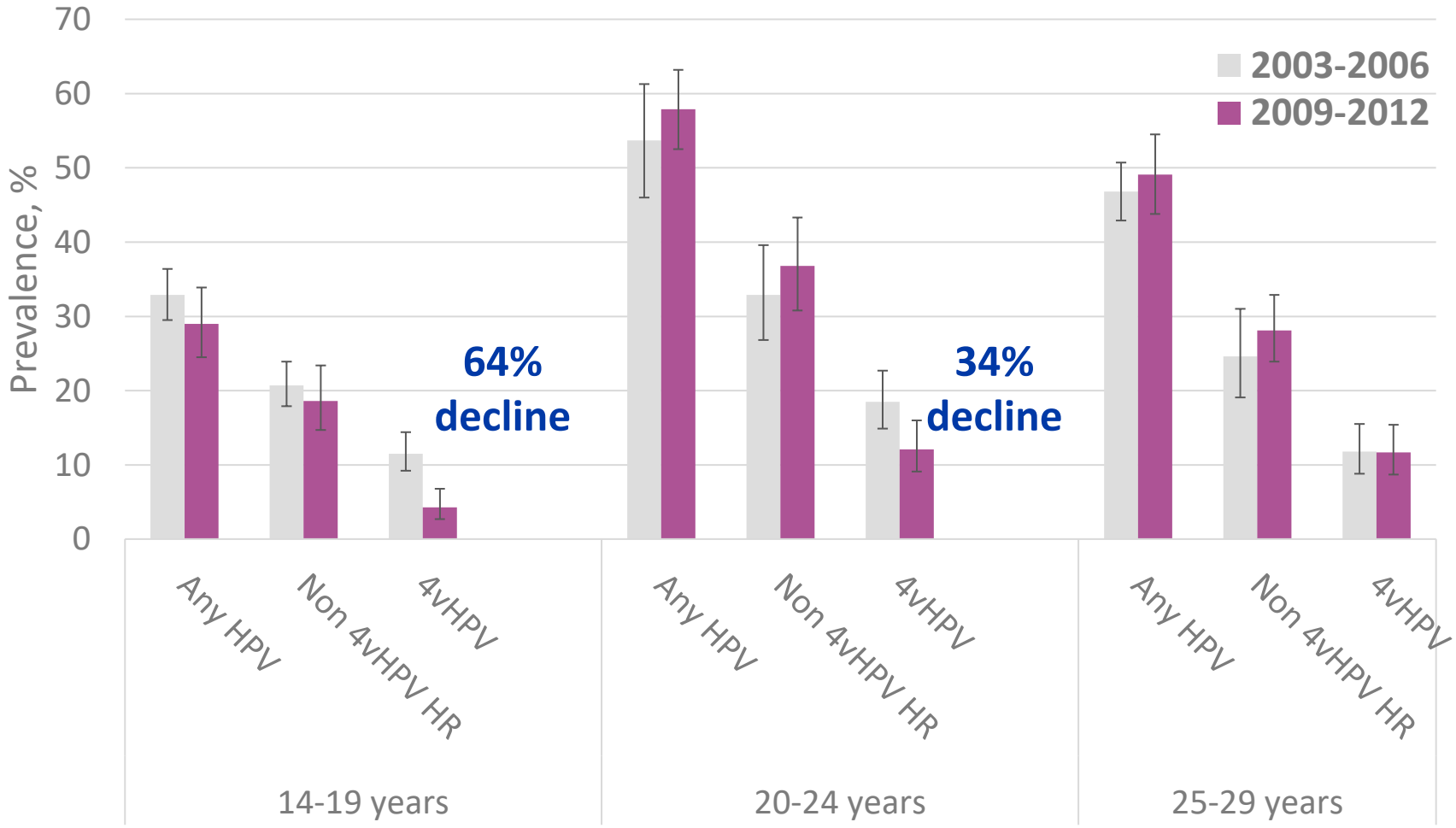




Chaturvedi A, Graubard B, Broutian T, Pickard R, et al. 2018 *Journal of Clinical Oncology*

HPV YOU ARE THE KEY TO CANCER PREVENTION

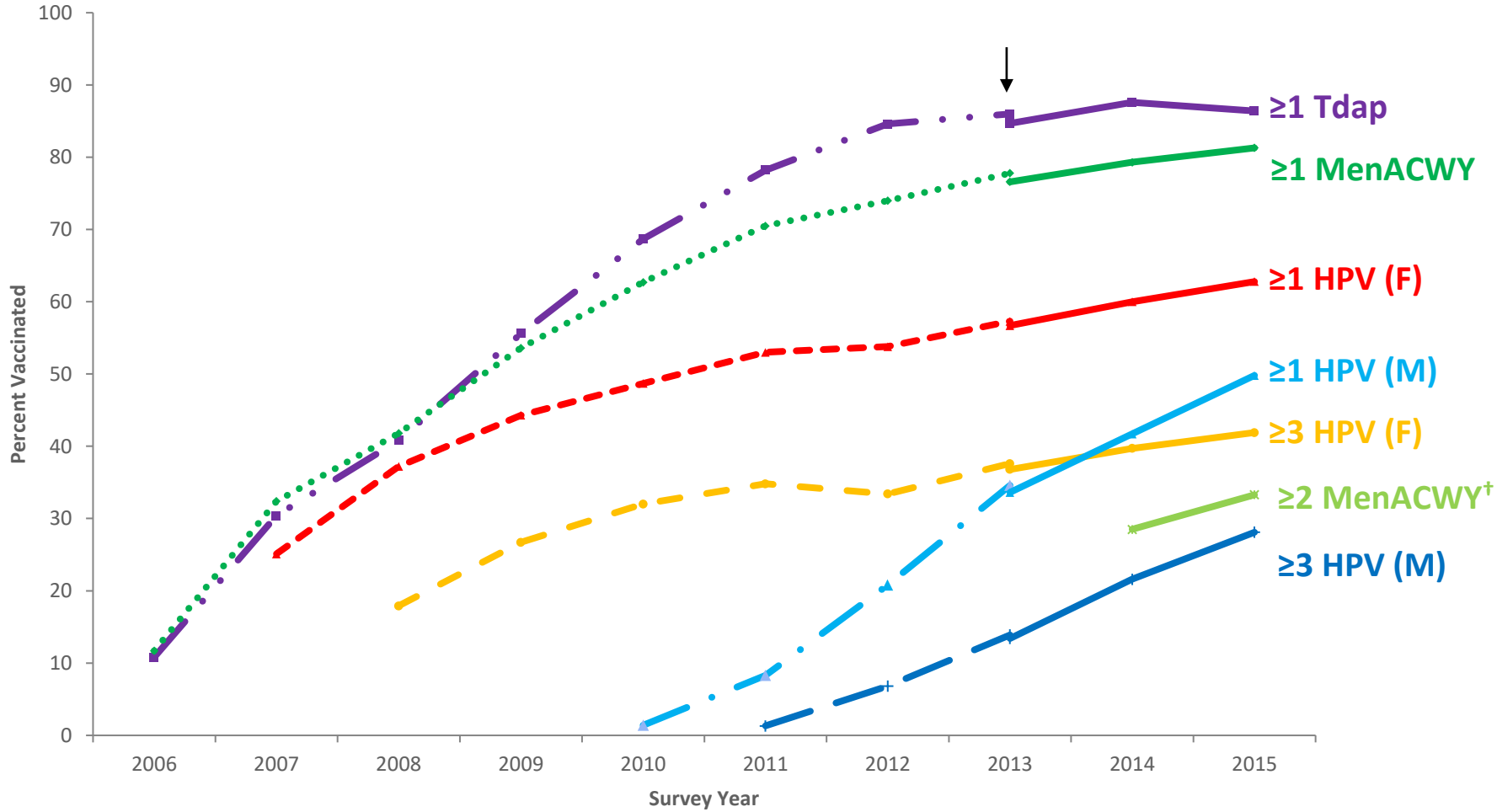
Prevalence of HPV before & after introduction of HPV vaccination in the United States



Markowitz L et al. Pediatrics. 2016.

YOU ARE THE KEY TO CANCER PREVENTION

Adolescent Vaccination Coverage United States, 2006-2015



Reagan-Steiner et al. MMWR 2016.

YOU ARE THE KEY TO CANCER PREVENTION

What are some STD/STI Prevention Activities Going on in Your Area?

Places to Seek Care

- Primary Care Physician
- Health Departments
- Title X Clinics
  - Funds family planning clinics
  - Services low income or uninsured
- School-based clinics
- Free community screenings→ great place to get STI testing and linked to other care
- AIDS Service Organizations (STI testing)
- PleasePrEPMe.org
- ReadySetPrEP.org

PrEP Providers

****PleasePrEPme.org****

The Adolescent Health Center

Primary Care Clinic

AIDS Alabama

Magic City Wellness Center

UAB Student Health

1917 Clinic (18 years and older)

The Jefferson County Department of Health

Medical Advocacy and Outreach (numerous sites across the state)

Thrive Alabama

THE UNIVERSITY OF ALABAMA AT BIRMINGHAM

Thank You!

Please feel free to reach out (at anytime) with questions: samanthahill@uabmc.edu

Figure 2. Chlamydia Rates by Race & Ethnicity, U.S.

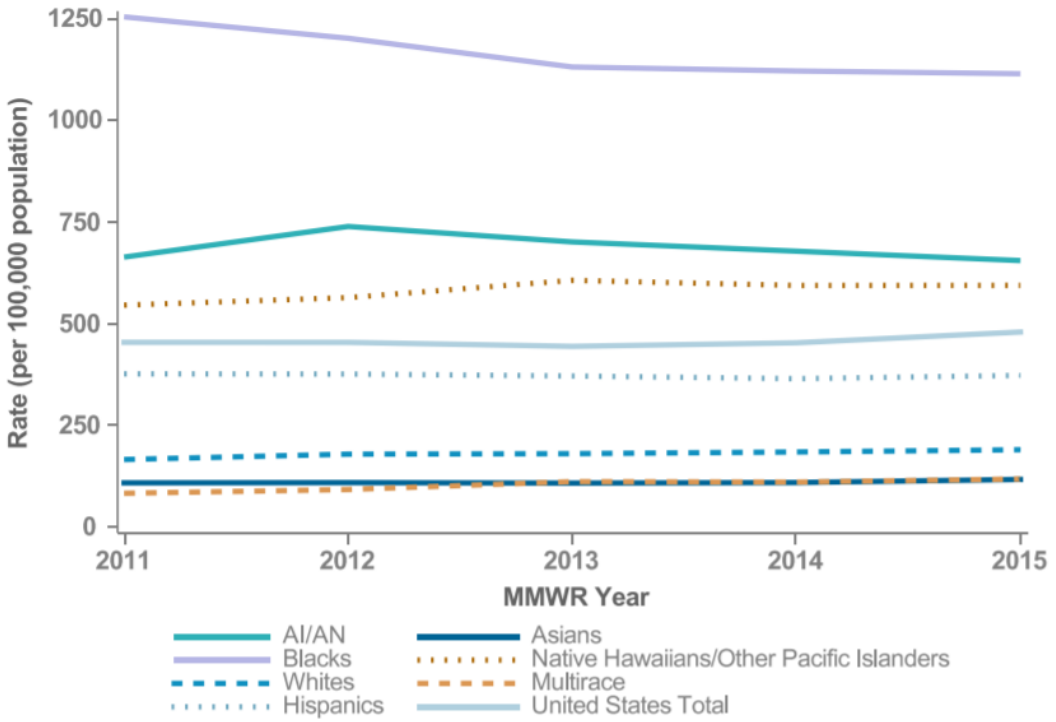


Figure 7. Gonorrhea Rates by Race & Ethnicity, U.S.

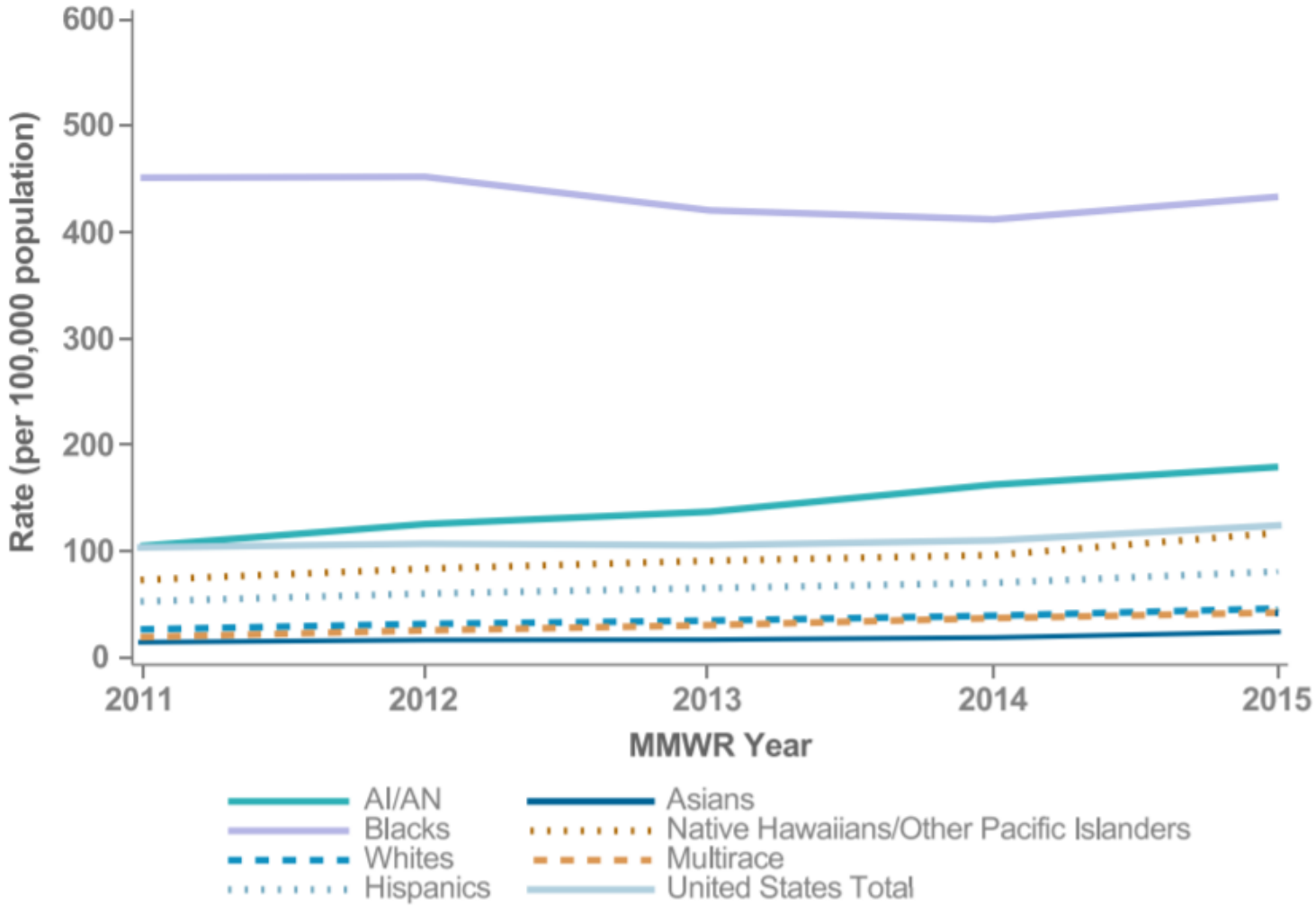


Figure 12. P&S Syphilis Rates by Race & Ethnicity, U.S.