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## Sexually Transmitted Infections and Adolescents

Lea Widdice, MD  
 Division of Adolescent Medicine  
 Cincinnati Children's Hospital Medical Center  
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### Outline

- Epidemiology of STI and risk factors
- Fundamentals of good adolescent health care
- STI prevention strategies
- Communicating with adolescents

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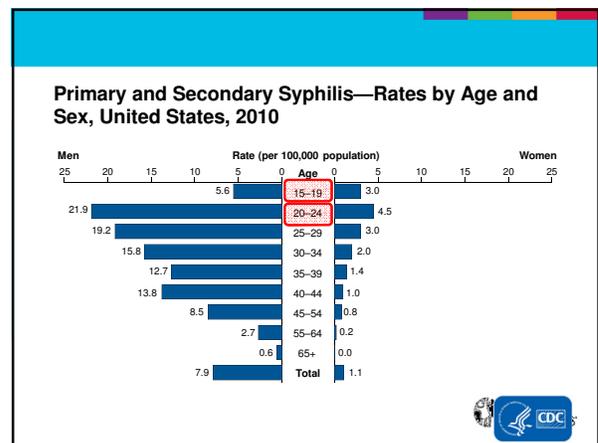
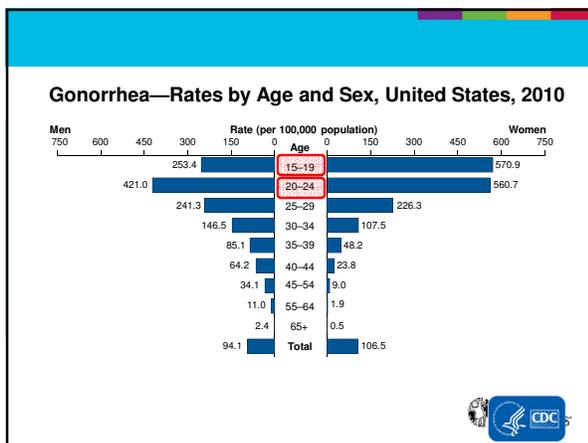
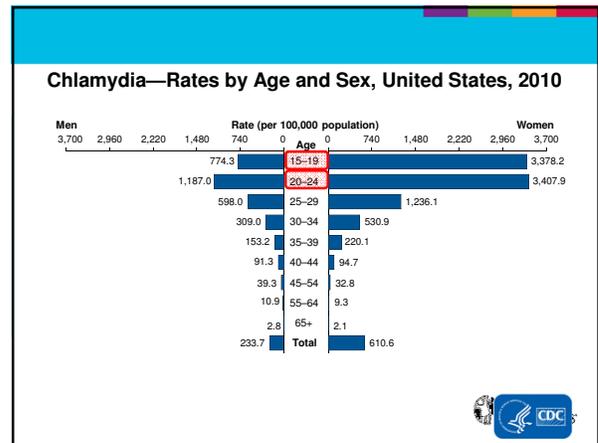
### Adolescents do get STIs

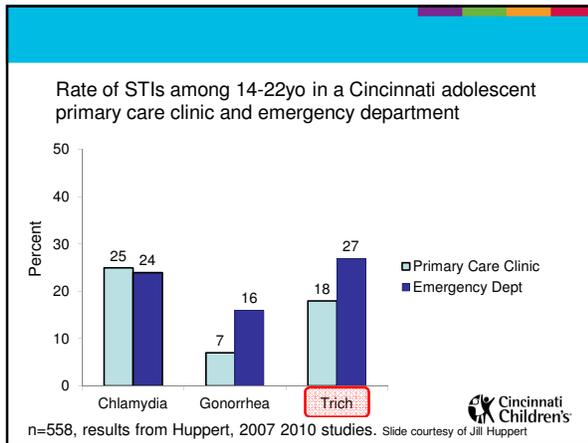


**Let's examine the**

- National rates of
  - Chlamydia
  - Gonorrhea
  - Syphilis
- Local rates of
  - Trichomoniasis

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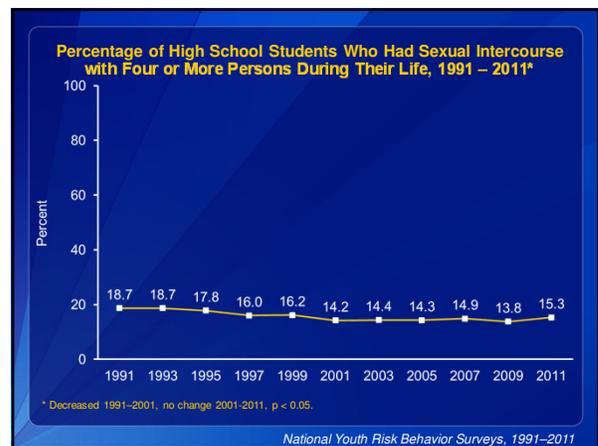
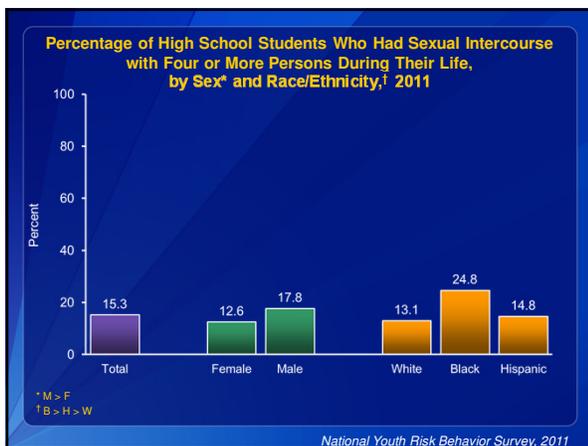
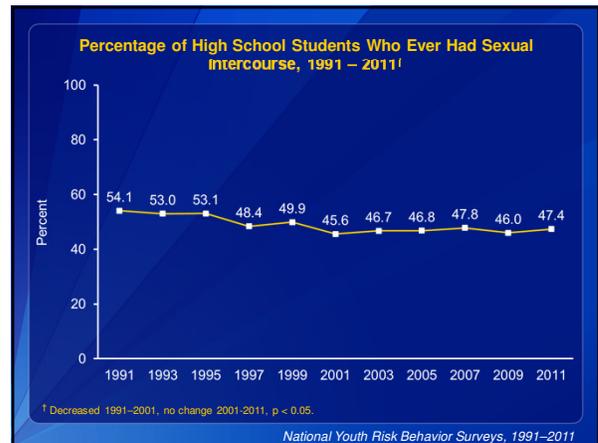
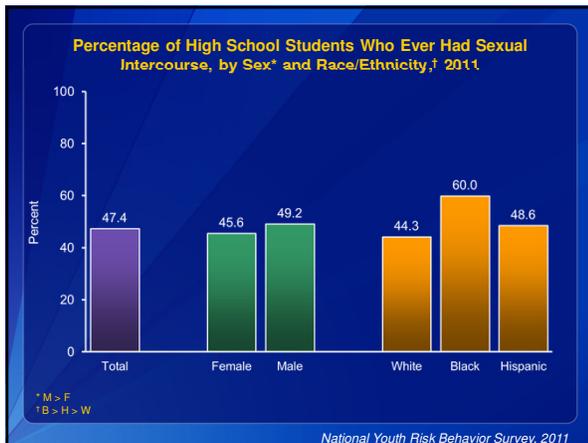


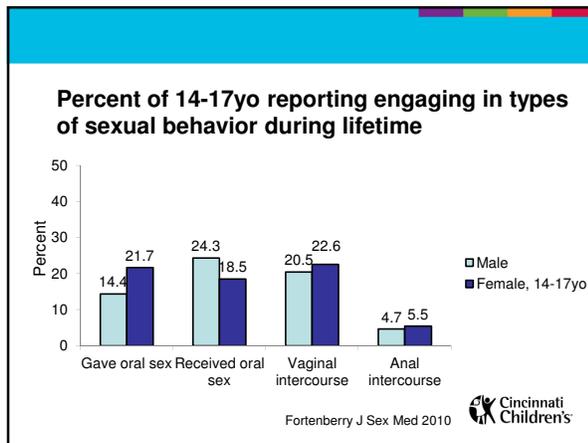
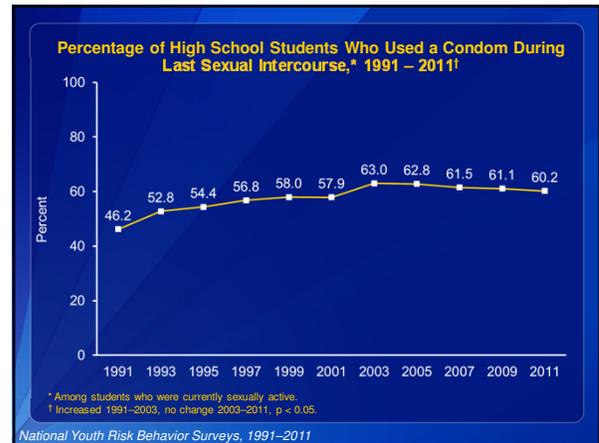
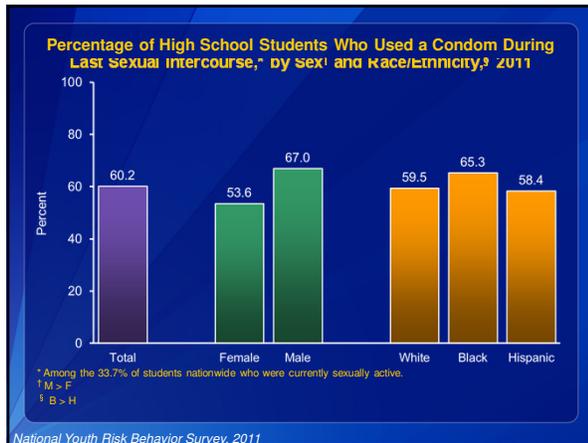


### Adolescents do have sex

**Let's examine the**

- Percent of high school students
  - Ever had sex
  - Had four or more lifetime partners
  - Used condom at last sex
- Percent of 14 to 17 year olds (yo) engaging in specific sexual behaviors during their lifetime





### Biological risk factors for STI in adolescents

- Asymptomatic infections
  - No prompt to seek medical care
  - Assume partners are uninfected
- Naïve immune system
- Cervical ectopy is more prone to acquisition of chlamydia, gonorrhea, HPV

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### Psychosocial and behavioral risk factors for STI in adolescents

- Limited access to healthcare
  - Knowledge about available services
  - Transportation
  - Financial means not linked to parents
- Denial of illness "It will get better on its own"
- Concerns about confidentiality

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### Psychosocial and behavioral risk factors for STI in adolescents

- Younger age of coitarche associated with
  - Increased number of sexual partners
  - Increased risk for STI
- Previous STI
  - Adolescents with a history of STI have higher risk than adult women to have recurrent STI

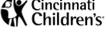
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**Psychosocial and behavioral risk factors for STI in adolescents**

- Inconsistent or incorrect condom use
- Risk-taking behaviors increase STI risk
- Adolescent females partner with older males
- Concurrent partnership associated with higher rates of STI
- Adolescents have complex sexual networks



- Fundamentals of delivering good adolescent health care



**Tips for working with adolescents –**  
Remember the developmental stages of adolescence

- Early
  - Girls 9-13 yo
  - Boys 11-15 yo
- Mid
  - Girls 13-16 yo
  - Boys 15-17 yo
- Late
  - Girls 16-21 yo
  - Boys 17-21 yo



**Early Adolescence**      Girls 9-13 yo  
Boys 11-15 yo

- Physical changes predominate
- Preoccupation with body image
- Concrete thinker
- No major parental conflicts
- Generally same age/sex peers
- Limited dating or intimacy



**Mid Adolescence**      Girls 13-16 yo  
Boys 15-17 yo

- Physical changes almost complete
- Developing abstract thought
- Sense of invulnerability
- Conflicts with parents/ emancipation issues
- Peer group very important
- Testing masculinity/ femininity, dating
- Risk taking behavior



**Late Adolescence**      Girls 16-21 yo  
Boys 17-21 yo

- Growth complete
- Abstract thought established
- Future goals
- Self identity
- Adult- adult parental relationship
- Individual relationships > peers
- Stable committed romantic relationships



### LGBTQ

- Behavior and orientation may not correlate, especially in younger patients
- Before disclosing their orientation, youth must believe that their provider
  - Understands and cares about their health
  - Open-minded
  - Educated about LGBTQ issues
  - Ensures confidentiality



### Legal issues - Consent and confidentiality

- Adolescents in every state, including Ohio, can consent to confidential STI testing and treatment
- Possible sources of breaches
  - Billing
  - Clinic staff attempts to notify for treatment



### Mandatory reporting of sexual abuse in Ohio

Consideration of the situation and age of patient

Consideration	Age of patient		
	12y and younger <sup>1</sup>	13, 14, 15 yo	16y and older
Age of partner	13y and older	4 or more years older <sup>2</sup>	n/a <sup>3</sup>
History of force or coercion	must report	must report	must report
Misuse of authority <sup>4</sup>	must report	must report	must report
Mental or cognitive impairment <sup>5</sup>	must report	must report	must report
Lack of supervision	must report	must report	n/a

<sup>1</sup> Children aged 12y and younger cannot consent to sexual activity. All children younger than 13y reporting sexual activity must be screened for sexual abuse.  
<sup>2</sup> Abuse may be present even when the age difference between partners is only 2-3 years. Carefully assess situation and consider consultation with the child abuse team or with the police jurisdiction.  
<sup>3</sup> If partner is 18y or older, parent can file charges with Juvenile Court prosecutors.  
<sup>4</sup> Patient's partner is an authority figure, i.e. relative, baby sitter, coach, teacher, etc.  
<sup>5</sup> e.g. patient has mental retardation or was intoxicated or had used drugs  
 Note: Sixteen years is the age of consent for sexual activity in Ohio  
 Source: <http://www.healthyohioprogram.org/sadv/sassault/~media/604566D76B2649A3859CB3220>  
 Accessed 10/8/12



- STI prevention strategies



### Prevention strategies and challenges

- Risk reduction
  - Condoms and other barriers
    - Access and having at the right time
    - Self efficacy
    - Correct use
  - Safer sex practices
    - Self efficacy
    - Skills for negotiating within the sexual relationship
  - Abstinence
    - Discordant with biological and social cues



### Screening and treatment recommendations for sexually active adolescents, summary

	CT	GC	Trich	HIV	HPV	Hep B	HSV-2	Syphilis
Female	A	A	A	S	21 yo	RF		Epi, RF
Male (female partners only)	HR	HR		S		RF		Epi, RF
MSM	A	A		A		RF		A

A = Annual screening recommended  
 S = Screening recommended  
 RF = Screen based on risk factors  
 Epi = Screen based on epidemiology  
 HR = Screen high risk individuals



### Screening recommendations for sexually active adolescents

	<i>Chlamydia trachomatis</i>
Females	Annual screening recommended, Consider more frequent screening in high-risk individuals
Males (female partners only)	Consider screening high-risk individuals: STD clinic patients, entering military or Job Corp, juvenile detention, adolescent medicine clinics, emergency departments, school based health centers in high risk communities
MSM	Annual screening recommended, Site(s) of testing based on individual sexual practices
Preferred test for screening	NAAT, culture (for pharyngeal and rectal specimens)

Adapted from Haamid, Adol Med 23 (2012) 73-94



### Screening recommendations for sexually active adolescents

	<i>Neisseria gonorrhoeae</i>
Females	Annual screening recommended, Consider more frequent screening in high-risk individuals
Males (female partners only)	Consider screening high-risk individuals: STD clinic patients, entering military or Job Corp, juvenile detention, adolescent medicine clinics, emergency departments, school based health centers in high risk communities
MSM	Annual screening recommended, Site(s) of testing based on individual sexual practices
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### Screening recommendations for sexually active adolescents

	<i>Trichomonas vaginalis</i>
Females	Consider annual screening, Consider more frequent screening in high-risk individuals
Males (female partners only)	Routine screening not recommended
MSM	Routine screening not recommended
Preferred test for screening	Light microscopy, culture, or rapid antigen detection

Adapted from Haamid, Adol Med 23 (2012) 73-94



### Screening recommendations for sexually active adolescents

	HIV
Females	Screening recommended
Males (female partners only)	Screening recommended
MSM	Annual screening recommended, Consider more frequent screening in high-risk individual
Preferred test for screening	Serology and/or rapid testing

Adapted from Haamid, Adol Med 23 (2012) 73-94



### Screening recommendations for sexually active adolescents

	Cervical cancer and other HPV-related diseases
Females	Screening recommended to start at age 21
Males (female partners only)	No recommendations for screening
MSM	No nationally recognized recommendations for screening for anal cancer;
Preferred test for screening	Cervical cytology

Adapted from Haamid, Adol Med 23 (2012) 73-94



### Screening recommendations for sexually active adolescents

	Hepatitis B virus
Females	Screen based on personal risk factors
Males (female partners only)	Screen based on personal risk factors
MSM	Screen based on personal risk factors
Preferred test for screening	Serology

Adapted from Haamid, Adol Med 23 (2012) 73-94



### Screening recommendations for sexually active adolescents

	Herpes simplex virus (HSV)-2
Females	Routine screening not recommended
Males (female partners only)	Routine screening not recommended
MSM	Routine screening not recommended
Preferred test for screening	Type-specific (G2) serology

Adapted from Haamid, Adol Med 23 (2012) 73-94



### Screening recommendations for sexually active adolescents

	Syphilis
Females	Screen based on epidemiology and personal risk factors
Males (female partners only)	Screen based on epidemiology and personal risk factors
MSM	Annual screening recommended, Consider more frequent screening in high-risk individuals
Preferred test for screening	Serology (RPR or VDRL)

Adapted from Haamid, Adol Med 23 (2012) 73-94



### Treatment

- Follow CDC 2010 STD guidelines
- Obtain a confidential number from adolescent and discuss how test results will be communicated



### Expedited Partner Therapy (EPT)

Definition

- Treating the sex partners of patients diagnosed with chlamydia or gonorrhea by providing prescriptions or medications to the patient to take to his/her partner *without the health care provider first examining the partner*
- **Not** permissible by Ohio law



### Expedited Partner Therapy (EPT)

Evidence

- Evidence supports use (studies done in >18yo)
  - Decreases rate of repeat infections
  - Increases pt's confidence that partner was treated
  - Reduces rates of sex with untreated partner



### Vaccination to prevent STI

- Hepatitis B
  - First recommended in 1980's
  - 3 doses, given at birth
- HPV vaccine
  - Quadrivalent and bivalent vaccine
    - Prevent infection with HPV 16 and HPV 18
    - Prevent HPV-related cancer, including cervical, anal, and penile cancer caused by HPV types 16 and 18
  - Quadrivalent also prevents genital warts caused by HPV 6 and HPV 11



### HPV vaccine – Side effects

- Most common side effects
  - Pain at site of injection
  - Fainting
  - Possibly, localized skin infection (reported in one, recent paper)



### HPV vaccine - dose

- 3 doses
  - Dose 2
    - 1-2 months after dose 1
  - Dose 3
    - 4 months after dose 2
    - At least 24 weeks after dose 2



### HPV vaccine – Target age group

- Girls
  - Quadrivalent or bivalent vaccine
  - Recommended since 2006
  - Target age: 11-12 yo
  - Immunize if not already: 13-26 yo
  - 9-10 yo at provider discretion

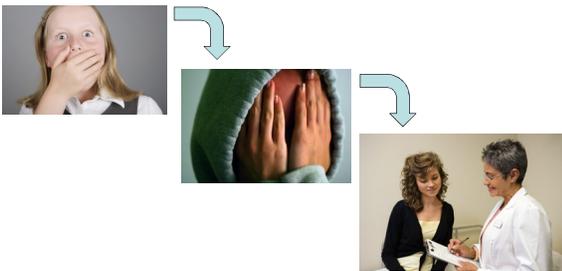


### HPV vaccine – Target age group

- Boys
  - Quadrivalent vaccine (protects against anal precancer, penile precancer, genital warts)
  - Recommended since 2010
  - If *only* sexual contact with women
    - 11-12 yo
    - Catch up in 12-21yo age group
  - If any sexual contact with men
    - 11-12 yo
    - Catch up in 12-26 yo age group



### Communicating with adolescents about their sexual behaviors




### What adolescents want in a health care provider?

- Cleanliness
- Respect
- Honesty
- Knowledge



### Communicating with adolescents about sexual health – Setting the stage

- Clinic
  - Sexual health information in a private location
  - LGBTQ friendly literature, pictures
- Explain confidentiality
  - Universal limitations include harming self, harming others, someone harming the patient
  - Level of confidentiality that you can offer
- Explain why the discussion is important to provide excellent health care



### The adolescent interview

- Verbal and nonverbal language are communicating assumptions and judgments about sexual behaviors and experiences
- Appear comfortable and nonjudgmental
- Transgender youth
  - “Do you want me to use ‘he’ or ‘she’ for you?”



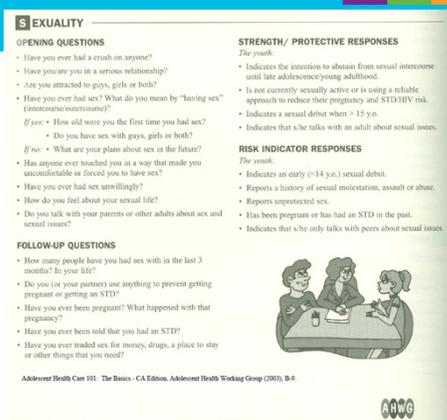
### Questioning the adolescent

- Be gentle
- Ask open-ended questions before closed-ended questions
- Normalize without condoning
  - Other kids your age.....



### Verbal traps to avoid

- Avoid assumptions implied by language and phrasing of questions
- Use gender neutral terms, e.g. partner or the people you sleep with instead of boyfriend or girlfriend
- Only use “homosexual” or “heterosexual” *if* the patient uses them first

**SEXUALITY**

**OPENING QUESTIONS**

- Have you ever had a crush on anyone?
- Have you ever been in a serious relationship?
- Are you attracted to guys, girls or both?
- Have you ever had sex? What do you mean by “having sex” (intercourse/intercourse)?

*If yes:*

- How old were you the first time you had sex?
- Do you have sex with guys, girls or both?

*If no:*

- What are your plans about sex in the future?
- Has anyone ever touched you in a way that made you uncomfortable or forced you to have sex?
- Have you ever had sex unwillingly?
- How do you feel about your sexual life?
- Do you talk with your parents or other adults about sex and sexual issues?

**FOLLOW-UP QUESTIONS**

- How many people have you had sex with in the last 3 months? In your life?
- Do you (or your partner) use anything to prevent getting pregnant or getting an STD?
- Have you ever been pregnant? What happened with that pregnancy?
- Have you ever been told that you had an STD?
- Have you ever traded sex for money, drugs, a place to stay or other things that you need?

**STRENGTH/ PROTECTIVE RESPONSES**

*The youth:*

- Indicates the intention to abstain from sexual intercourse until late adolescence/young adulthood.
- Is not currently sexually active or is using a reliable approach to reduce their pregnancy and STD/HIV risk.
- Indicates a sexual debut when > 15 yo.
- Indicates that s/he talks with an adult about sexual issues.

**RISK INDICATOR RESPONSES**

*The youth:*

- Indicates an early (<14 y.o.) sexual debut.
- Reports a history of sexual molestation, assault or abuse.
- Reports unprotected sex.
- Has been pregnant or has had an STD in the past.
- Indicates that s/he only talks with peers about sexual issues.

Adolescent Health Care 101: The Basics - CA Edition, Adolescent Health Working Group (2007), B-9



### Conclusions

- Adolescents are a lot of fun to work with
- Adolescents can benefit from your attention and care
- Your kindness, openness, and education efforts can have a positive impact on the health and choices of young people

