# ROUTINIZING CHLAMYDIA AND GONORRHEA TESTING AND TREATMENT IN PRIMARY CARE

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NEW YORK CITY STD HIV PREVENTION TRAINING CENTER

UB|MD PEDIATRICS

Erie County Department of Health

Public Health
Prevent. Promote. Protect.

# Disclosures

Dr. Gale Burstein has no financial relationships to disclose or Conflicts of Interest to resolve.

Commercial support: There is no outside funding for this activity.

Unlabeled use: Dr. Gale Burstein's presentations will include discussion of unlabeled use of gonorrhea and chlamydia nucleic acid amplification tests (NAAT) of non-genital specimens and trichomonas NAATs of male urine specimens that are not FDA-approved. Clinical laboratories my conduct validation studies to obtain CLIA approval to perform these tests.

# Learning objectives

- By the end of this lecture, you will be able to….
  - Explain why sexual health services are important for pediatricians to provide
  - Describe how to routinize STI care in 1º care
  - List 3 non-invasive STI tests

# WHY IT MATTERS

## Overview

# ADOLESCENT SEXUAL BEHAVIOR

# ♀ Sexual behavior with **opposite-sex** partners

| Age (yrs) | Any sex | Vaginal sex | Oral sex | Anal sex |
|---|---|---|---|---|
| 15-19 | 53% | 46% | 45% | 11% |
| 20-24 | 88% | 85% | 81% | 30% |

NSFG 2006-8

http://www.cdc.gov/nchs/data/nhsr/nhsr036.pdf

# ♂ Sexual behavior with **opposite-sex** partners

| Age (yrs) | Any sex | Vaginal sex | Oral sex | Anal sex |
|---|---|---|---|---|
| 15-19 | 58% | 45% | 48% | 10% |
| 20-24 | 86% | 82% | 80% | 32% |

NSFG 2006-8

http://www.cdc.gov/nchs/data/nhsr/nhsr036.pdf

# ♂ Sexual behavior with **same-sex** partners

| Age (yrs) | Any sex with ♂ | Anal sex with ♂ | Oral sex with ♂ |
|---|---|---|---|
| 15-19 | 3% | 1% | 2% |
| 20-24 | 6% | 3% | 6% |

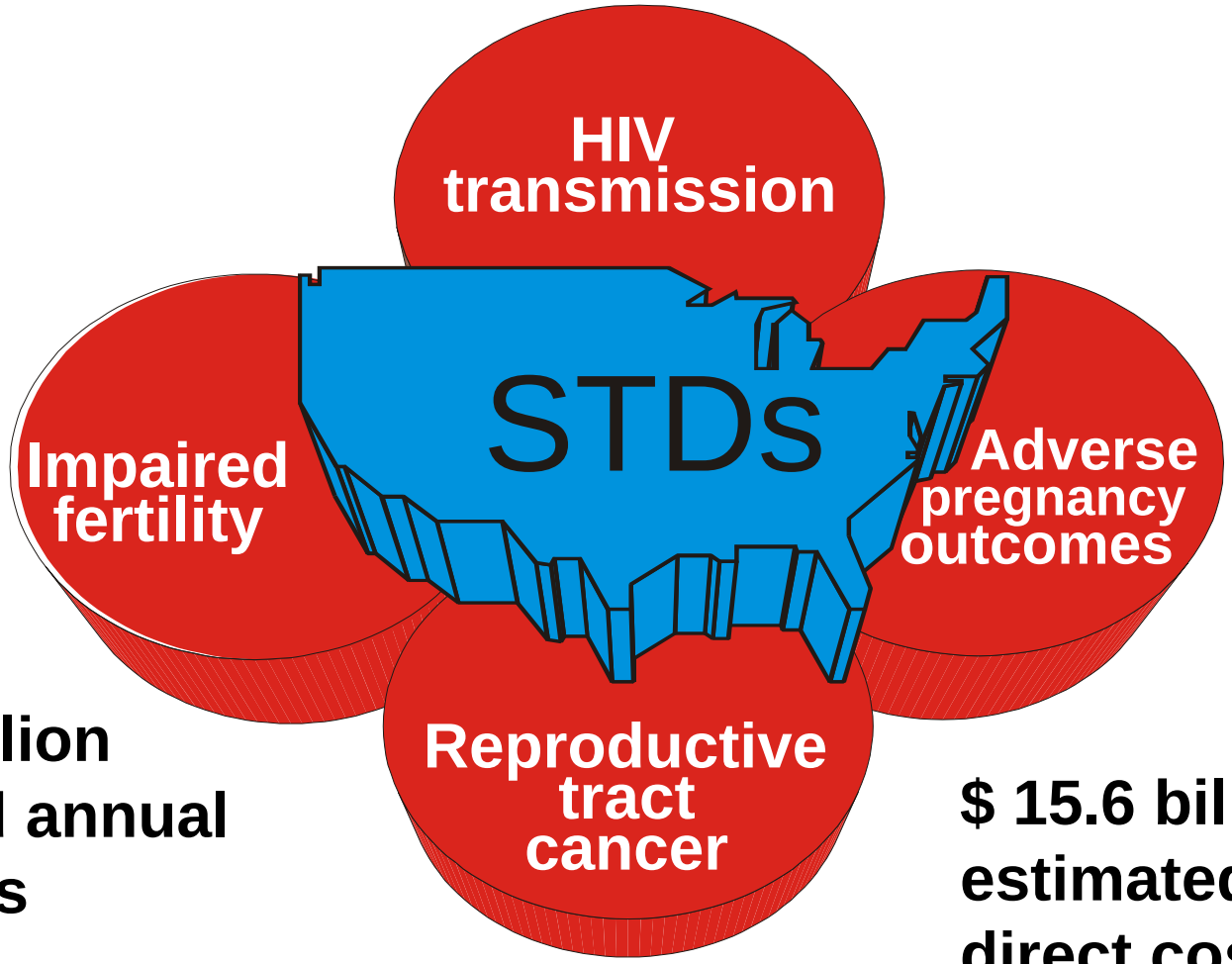
NSFG 2006-8

http://www.cdc.gov/nchs/data/nhsr/nhsr036.pdf

# WHY IT MATTERS

## STI Burden

# STDs and their Consequences

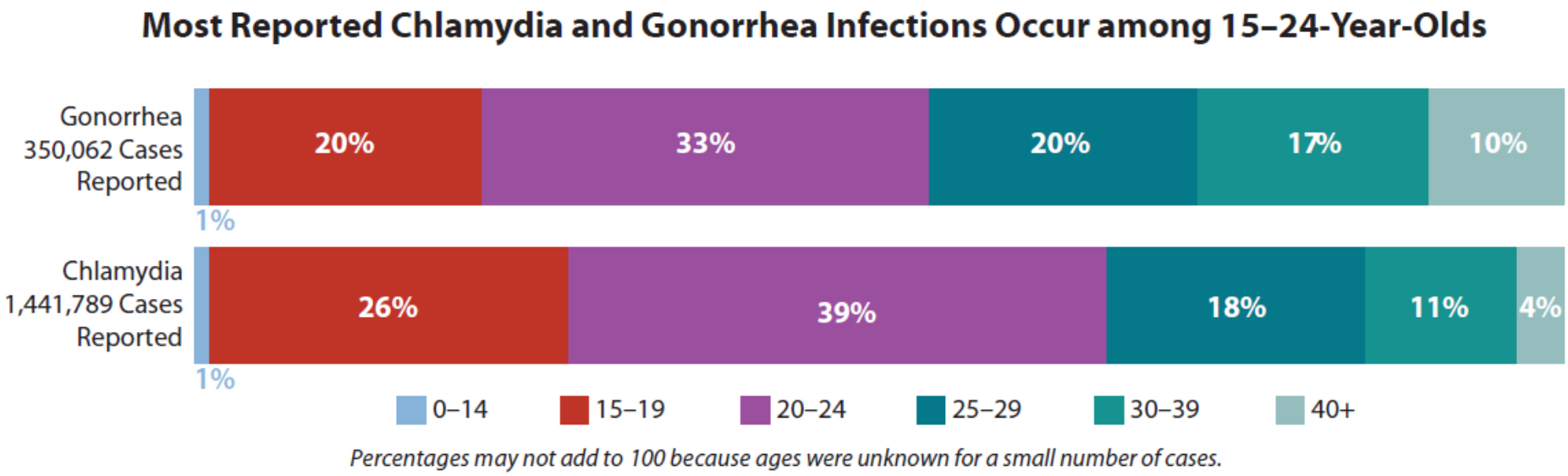



**~ 19.7 million estimated annual new cases**

**$ 15.6 billion estimated annual direct costs**

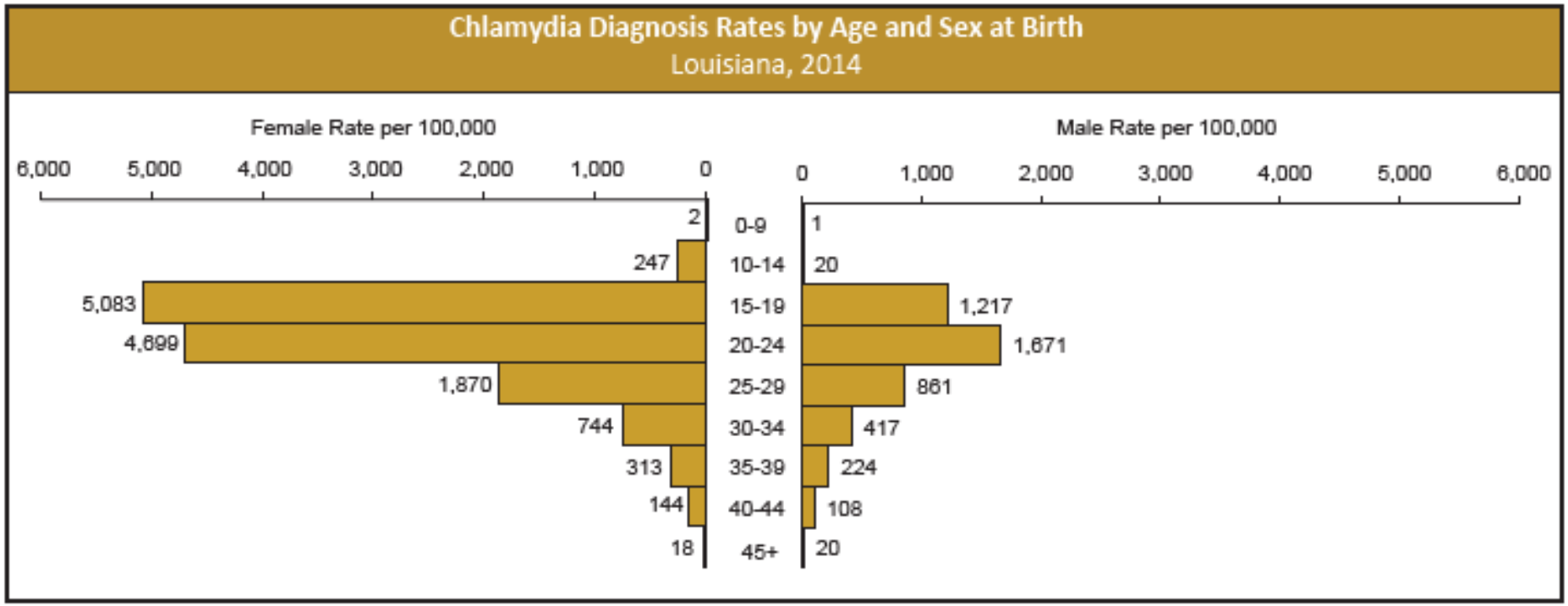
CDC. STD Surveillance 2012. Atlanta: U.S.DHHS; 2013

15-24 yr olds account for ~25% of sexually active population, but…..

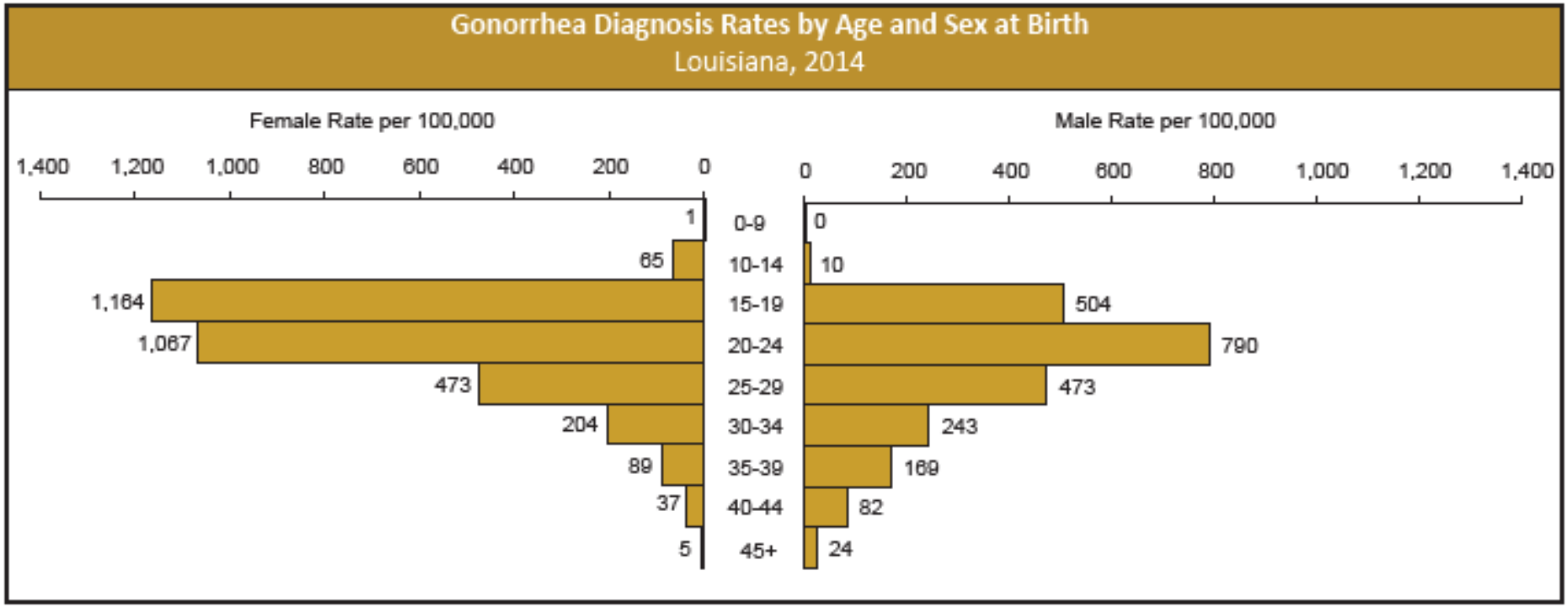



CDC estimates that undiagnosed STIs cause >20,000 females to become infertile each year

www.cdc.gov/std/stats14/std-trends-508.pdf




www.dhh.louisiana.gov/assets/oph/HIVSTD/2014_STDHIV_SURVEILLANCE_REPORT.pdf

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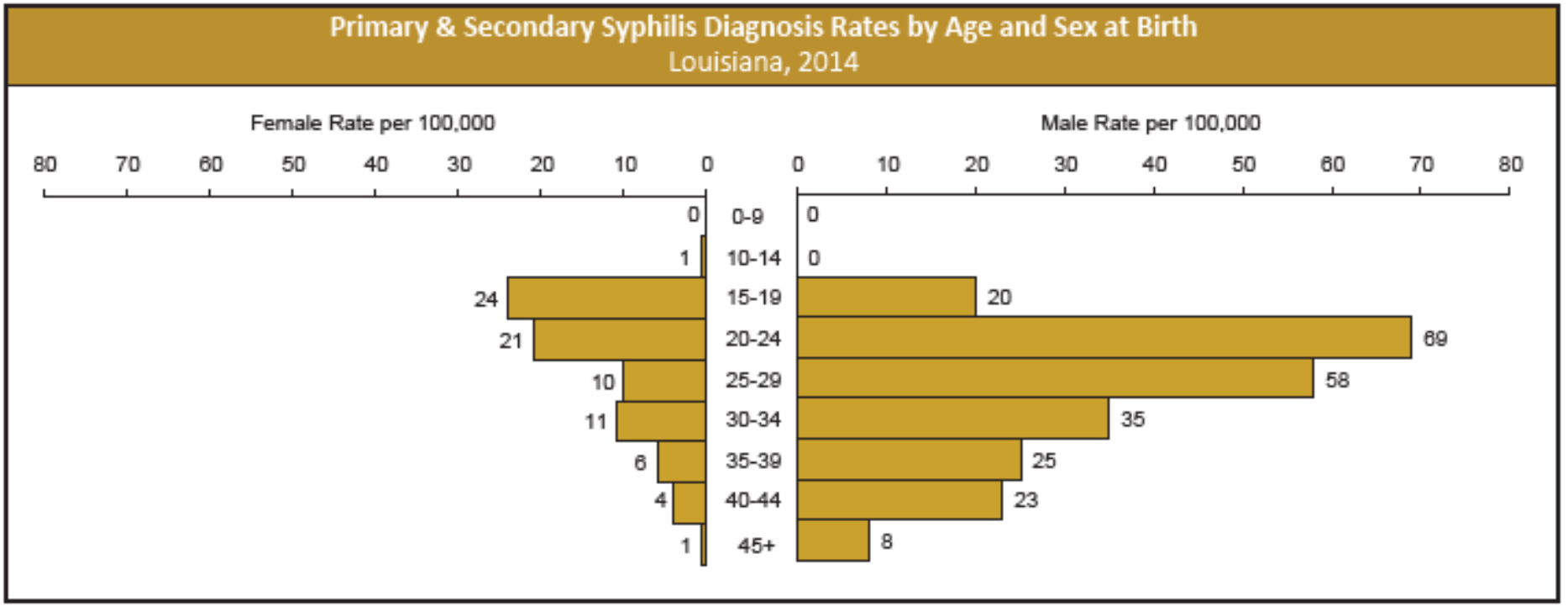



- 2014 **LA** male P&S syphilis diagnosis rate of 19.5/100,000 males was **3.5 times** greater than female rate of 5.6 /100,000 female

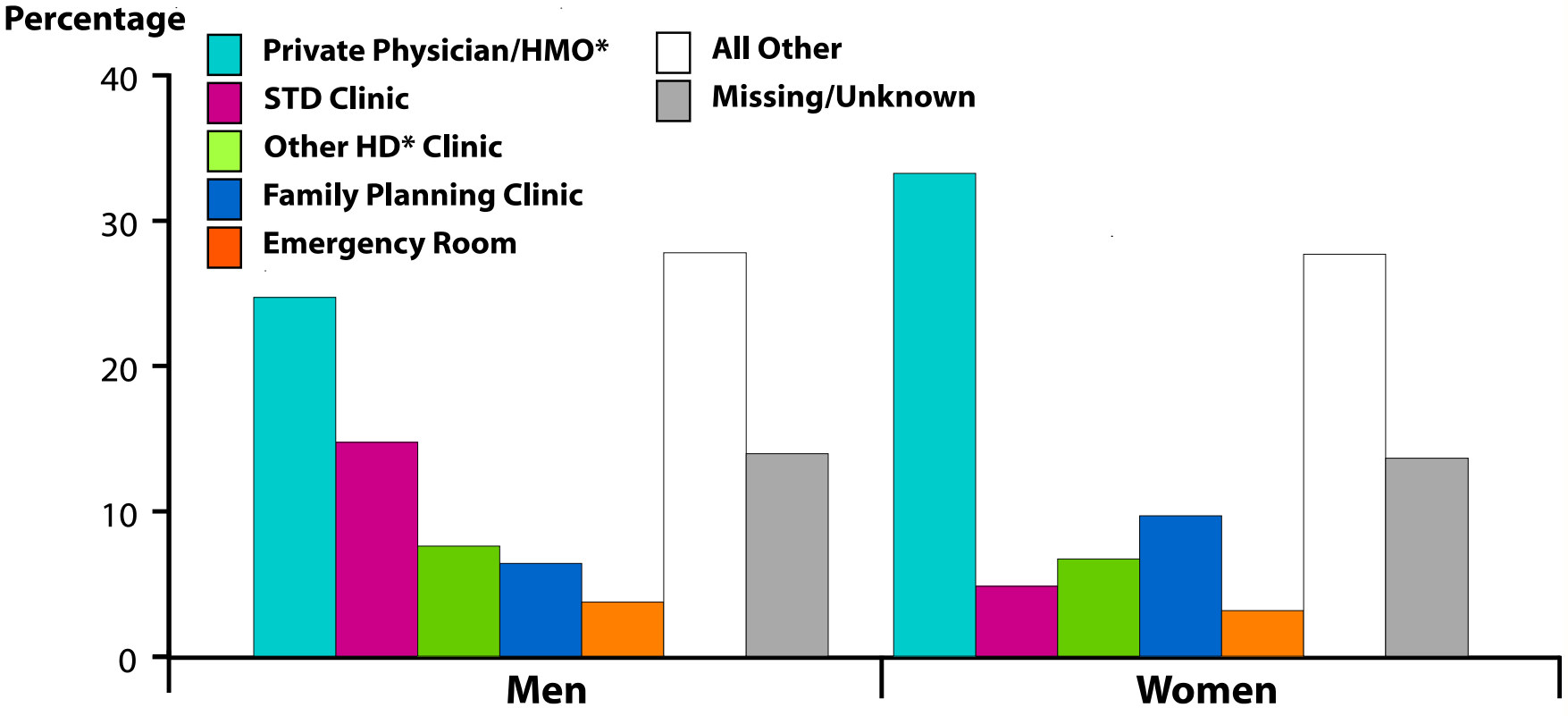
- 2014 **US** male P&S syphilis diagnosis rate of 11.7 /100,000 males was **10.6 times** greater than female rate of 1.1 /100,000 females

www.dhh.louisiana.gov/assets/oph/HIVSTD/2014_STDHIV_SURVEILLANCE_REPORT.pdf
www.cdc.gov/std/stats14/syphilis.htm

# STD National Rankings, 2013

- **1st** Congenital Syphilis (51.3 per 100,000 live births)
  - 32 cases (53 cases in 2015)
- **1st** Gonorrhea (188.4 per 100,000)
  - 8,669 cases
- **2nd** Chlamydia (624.5 per 100,00)
  - 28,739 cases
- **3rd** Primary and Secondary Syphilis (9.2 per 100,000)
  - 423 cases
  - Louisiana ranked first from 2006 to 2011

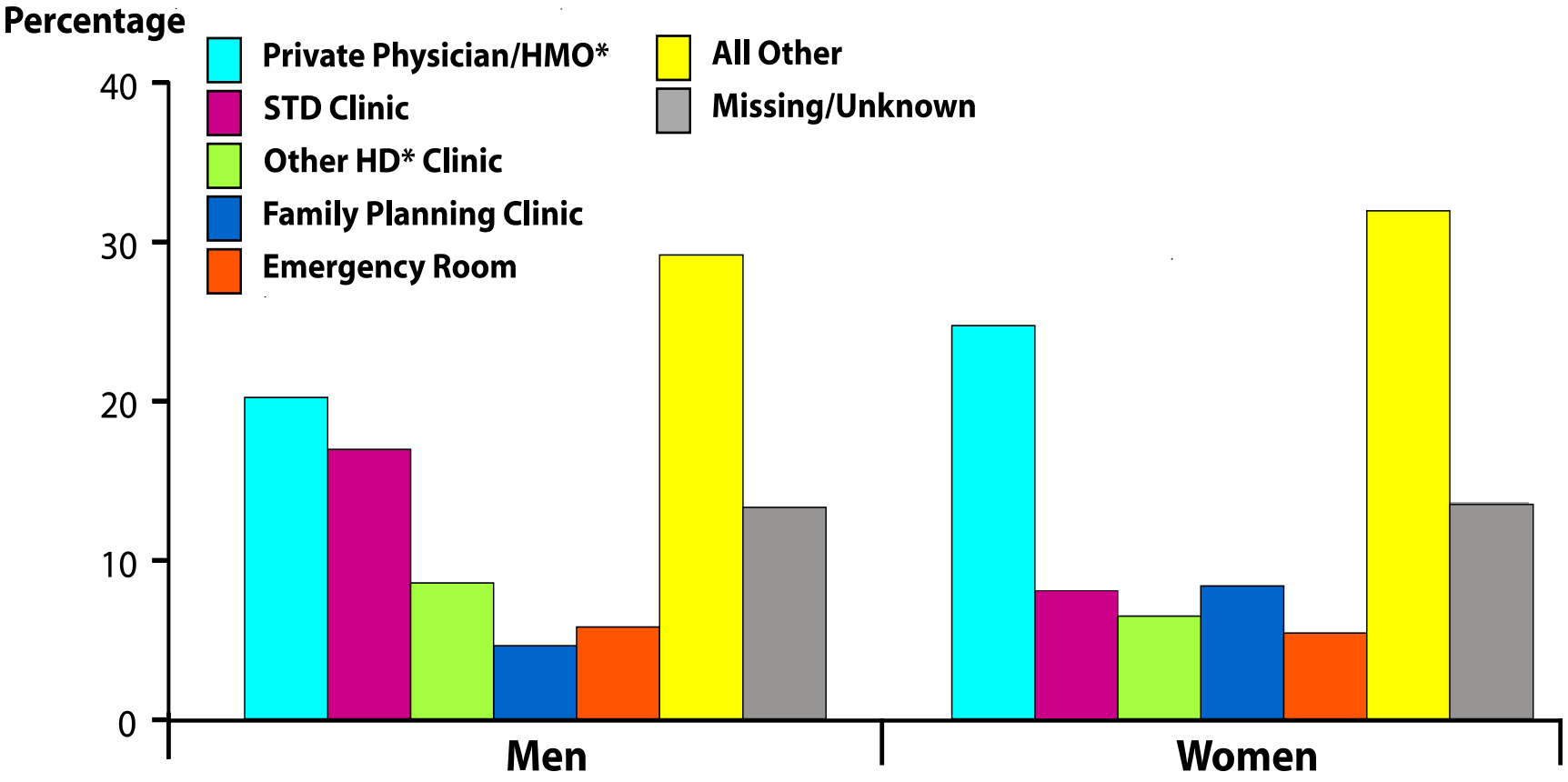
# Chlamydia — Percentage of Reported Cases by Sex and Selected Reporting Sources, United States, 2014




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

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

# Gonorrhea — Percentage of Reported Cases by Sex and Reporting Sources, United States, 2014

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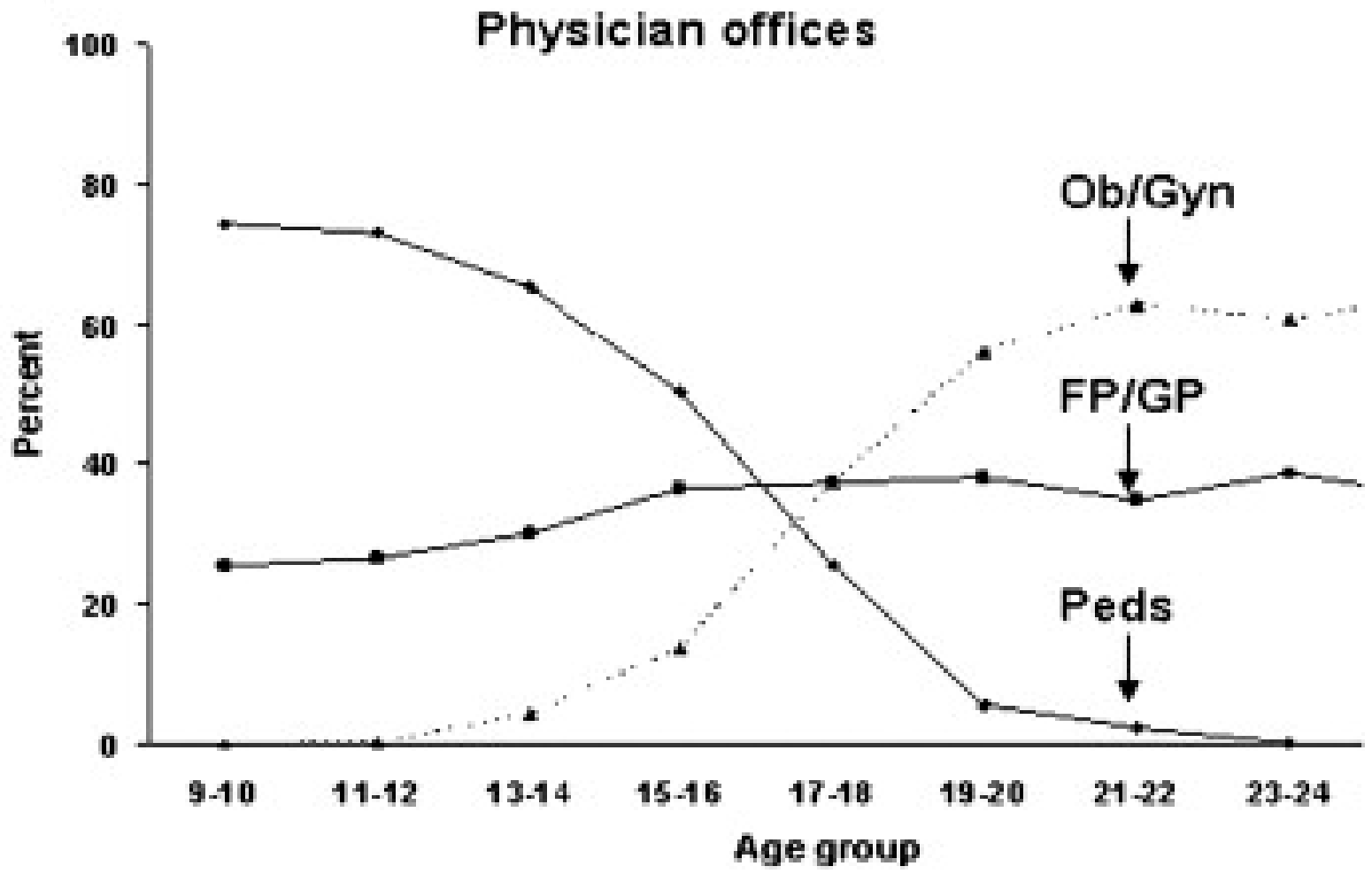
# Clinical Care: Female Adolescents




*Source: National Ambulatory Medical Care Survey, 2003-6*

**Hoover et al., J Adol Health, 2010**

# Routinizing sexual health in 1º care

- Ensure all office staff on board with confidential adolescent health care
- Systems in place to provide confidential care

# Routinizing sexual health in 1º care

- Ensure all office staff on board with confidential adolescent health care
- Systems in place to provide confidential care

# KNOW YOUR STATE LAWS!

# 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 |
| Alaska | X | | |
| Arizona | X | | |
| Arkansas | X | | X |
| California | 12 Years | X | |
| Colorado | X | X* | |
| Connecticut | X† | X | |
| Delaware | 12 Years | X | X |
| Dist. Of Columbia | X | | |
| Florida | X | X | |
| Georgia | X | X | X |
| Hawaii | 14 Years | | X |
| Idaho | 14 Years | X | |
| Illinois | 12 Years | X | X |
| Indiana | X | | |
| Iowa | X | X‡ | |
| Kansas | X | | X |
| Kentucky | X | X | X |
| Louisiana | X | X | X |
| Maine | X | | X |
| Maryland | X | | X |

http://new.dhh.louisiana.gov/assets/oph/pcrh/adolescent/ASHPAdminManual/Section1historyFINAL.pdf
http://biotech.law.lsu.edu/la/consent/la_consent.htm
www.guttmacher.org/print/state-policy/explore/minors-access-sti-services

# OFFICE SYSTEMS CHANGES?

# Lessons learned….

- Collect urine specimen from all teens at all visits at registration
- Provide brochure at registration about what to expect at adolescent visit
- Reconfigure screening/vital sign room into teen "safe intake room"
- MA/nurse ask Sexual Health History (Sex Hx) routinely
- Use EMR Sex Hx template
- Provider checks EMR Sex Hx at all visits
- EMR “care card” includes sexual history and CT/GC screening on it for patients age 13-24
- Follow proper STI testing/specimen collection
- Develop test of re-infection and EPT f/u process for STI cases
- Post clinic signage

# Care card

NextAppt 03/07/16 03:15 pm Remollino PA [2 Mo F/u] Insurance [redacted]

| Management & Prevention | Action Items | Interval | Most Recent | Status | Goal |
|---|---|---|---|---|---|
| Cervical Cancer Screen | Pap | 3 years | -- | *Due* | |
| Hyperlipidemia | Office Visit | 12 months | 01/11/16 | | |
| | Lipid Panel | 12 months | 12/31/15 | | LD |
| Adult Immunizations | Tdap | 10 years | 01/12/07 | | |
| | Influenza | 1 year | *09/12/12* | *Due* | due [August- |
| Maintenance | Preventive Exam | 1 year | 12/28/15 | | |
| | BMI | 12 months | 02/23/16 | | adult 19-25[106- |
| | Chlamydia Screen | 1 year | 02/23/16 | | |
| | Depression Screen | 12 months | 12/28/15 | | |

# Why Screen For Chlamydia?

*An Implementation Guide for Healthcare Providers*

**Early identification and treatment:**

**Reduces** pelvic inflammatory disease (PID)

**Reduces** infertility, ectopic pregnancy, and chronic pelvic pain

**Prevents** complications in newborns

ncc national chlamydia coalition

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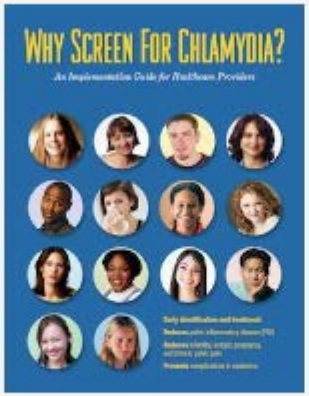
# Screening for Chlamydia

A A A

Routine chlamydia screening is recommended for all sexually active adolescents and young women age 25 years and under. Women over age 25 with risk factors such as new or multiple sex partners, all pregnant women, and men who have sex with men, or are in high risk settings should also be screened. Chlamydia is easily detected from a swab or urine specimen and treated with antibiotics. Rescreening and treating




Why Screen for Chlamydia? An Implementation Guide for Healthcare Providers

## For Healthcare Providers and Professionals

- Screening for Chlamydia
- Quality Measures & Screening Recommendations
- Chlamydia Clinical Education & Resources
- Innovative Strategies

SHRE: Sexual Health Resource Exchange

http://ncc.prevent.org/providers/screening-for-chlamydia

# Contents

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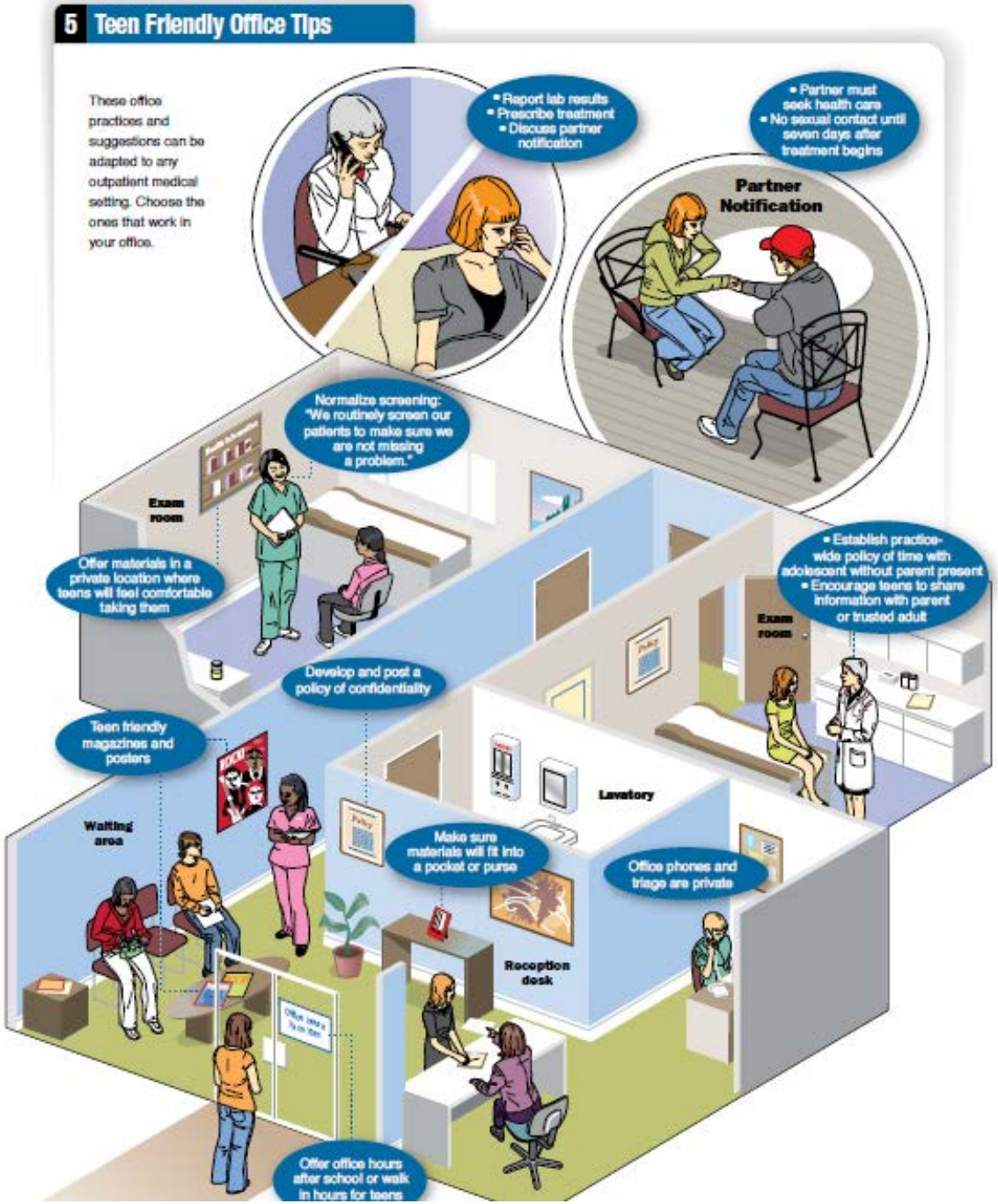
Additional Information about STDs and Sexual Health ..... 10

**Access the resources in this guide at**
**http://ncc.prevent.org/info/why-screen-linked-resources**

# 5 Teen Friendly Office Tips

These office practices and suggestions can be adapted to any outpatient medical setting. Choose the ones that work in your office.



# Confidentiality thru full disclosure

- Inform parents/guardians about confidentiality policy before begin visit
  - Letter home or at registration
    - Detail what to expect at the visit
    - Discuss billing issues
- Display materials such as posters or brochures discussing importance of confidentiality
- At age 11-12 yrs introduce concepts of confidentiality and alone-time for part of next visit

# [YOUR OFFICE LOGO]

Drs. XXXX and XXXX provide routine health care for teens and young adults. We want to work with you and your family to meet all of your health care needs: **physical, mental and emotional**.

Young adults need specialized medical care and a doctor with whom they can discuss anything, from acute and chronic illness, health maintenance and preventive care, sexual concerns and emotional problems. Their parents also need special guidance and support through these years. ***Our practice goal is to provide comprehensive health care to teens and their families.***

As teens begin to develop into adults and take more responsibility for their lives, we ask for more input from them about their health. As part of ***comprehensive health care*** it is our practice to ask parents to wait outside for part of the interview and encourage the adolescent to discuss his or her own view of their problem. Talking to teens without the parent also gives teens a chance to ask questions or give information they may feel self-conscious about. **Teens often have questions or concerns that they may feel embarrassed to talk about in front of their parents.** It is important to give them enough freedom to grow but not so much that they get involved in the wrong activities.

Many teenagers and young adults experiment with *high-risk* behaviors that can lead to serious problems.

In New York State high schools (excluding NY City):

- 36 % have tried cigarettes
- 69 % drank alcohol
- 37 % have tried marijuana
- 44 % have had sex

Most teenagers will hide their behavior so parents are not the first to find out. Our goal is to help identify these problems before they become too big and to help prevent them. To do this we must give them a reason to trust us.

**New York State law requires that some services are offered to teens privately.** We ask parents to leave for part of the interview for confidentiality and to build trust. We also encourage the teen to discuss important issues with parents.

**It is important to know that if they are doing anything to hurt themselves or others, or if someone is hurting them, we will be forced to break confidentiality.**

Drs. XXXX and XXXX are always available to discuss health problems or answer questions and to work with you to help your teen or young adult child make the best choices for a healthy future.

# Confidentiality Statement

Drs. Raiken and Ehlenfield provide routine health care for teens and young adults. We want to work with you and your family to meet all of your health care needs: **physical, mental and emotional**.

Young adults need specialized medical care and a doctor with whom they can discuss anything, from acute and chronic illness, health maintenance and preventive care, sexual concerns and emotional problems. Their parents also need special guidance and support through these years. ***Our practice goal is to provide comprehensive health care to teens and their families.***

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Many teenagers and young adults experiment with *high-risk* behaviors that can lead to serious problems.

In New York State high schools (excluding New York City):

- **46 % have tried cigarettes**
- **73 % drank alcohol**
- **38 % have tried marijuana**
- **43 % have had sex**

Most teenagers will hide their behavior so parents are not the first to find out. Our goal is to help identify these problems before they become too big and to help prevent them. To do this we must give them a reason to trust us.

**New York State law requires that some services are offered to teens privately.** We ask parents to leave for part of the interview for confidentiality and to build trust. We also encourage the teen to discuss important issues with parents.

## More Information

- Websites for Adolescent Patients and their Parents/Guardians
- Confidentiality Statement

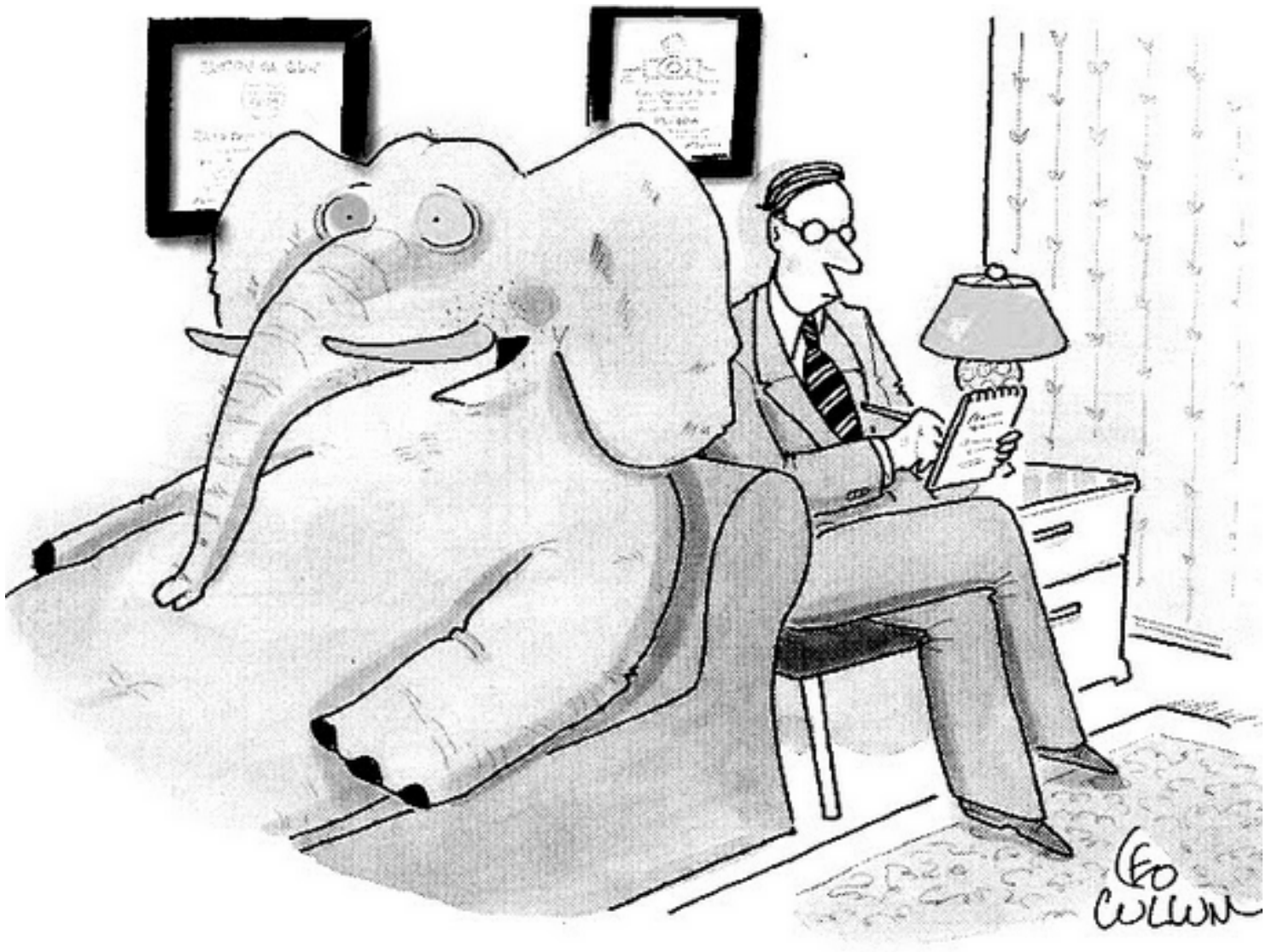
## *OUR POLICY ON CONFIDENTIALITY*

**Our discussions with you are private. We hope that you feel free to talk openly with us about yourself and your health. Information is not shared with other people unless we are concerned that someone is in danger.**

Sample statement developed by URMC Department of Pediatrics

# Meaningful use challenges

- Patient instructions required for 50% visits
  - May contain confidential information
  - Can give to patients directly at ≥18 yrs
    - May need to give directly to adolescent
  - May need to work with EMR on ways to delete/hide confidential information from patient instructions
  - Adolescent patient portal may be accessed by parent




*"I'm right there in the room, and no one even acknowledges me."*

# Confidentiality and Billing

- Cannot  always guarantee confidentiality
- Most commercial plans send explanation of benefits (EOBs) to policyholder/1°insured
- Insurers not required to provide insured/subscriber with EOB if
  - service is provided by a facility/provider participating in insurer's program
  - full reimbursement for claim, other than a co-payment, is paid by insurer directly to participating facility/provider
- Some health plans NOT sending EOBs if only copayment due
  - Health plan may send EOB unless dependent requests that EOB not sent
  - Need to check with specific carrier for details on suppressing EOB

www.guttmacher.org/sites/default/files/report_pdf/confidentiality-review.pdf

# CT/GC test as part of WCC

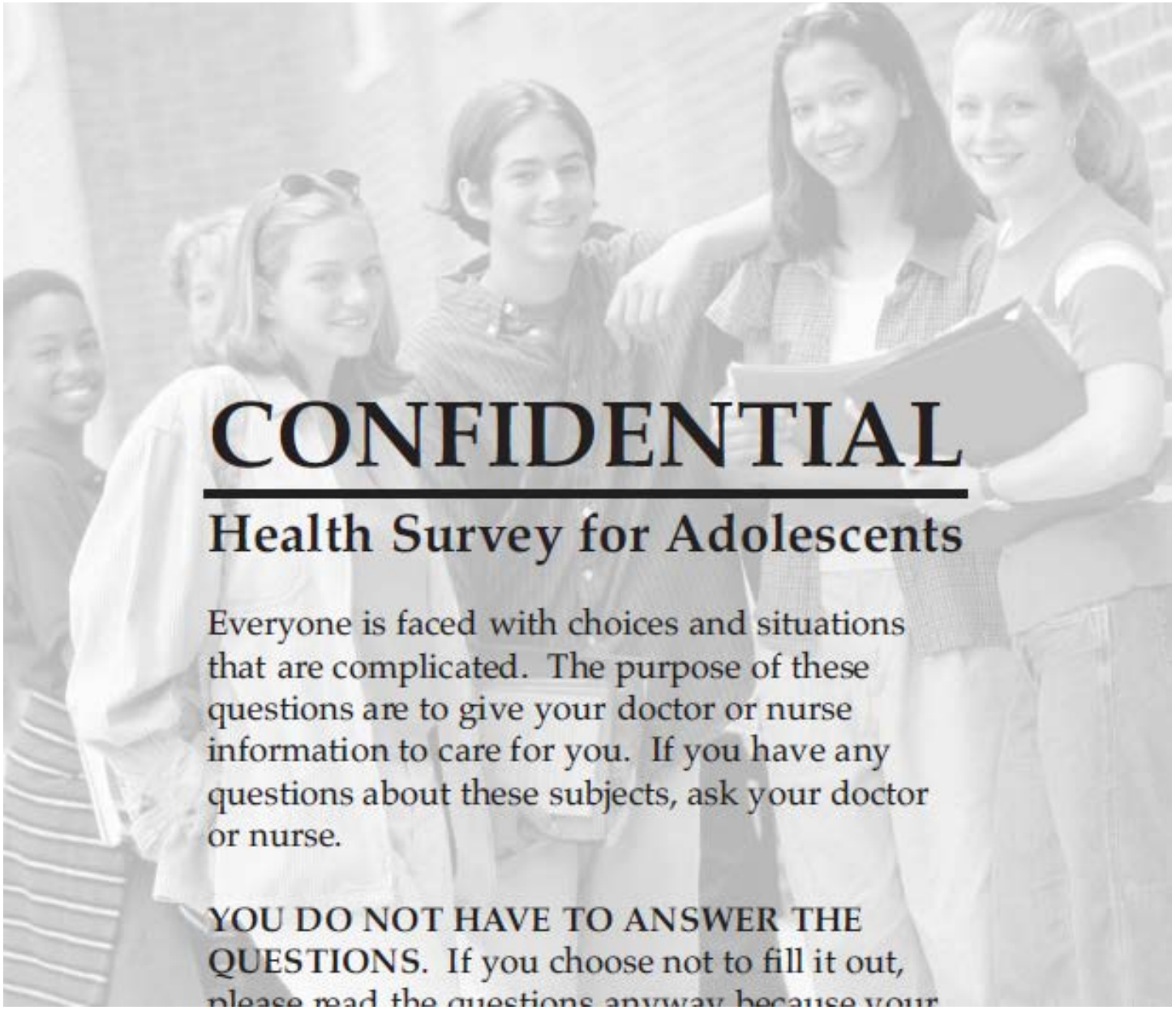
- CPT Modifier 33 aids in correctly coding for preventive services under ACA with no cost sharing
- Link GC/CT test to the “well child” code or “screening for” code”
  - some payers use their benefits to adjudicate claims
    - screening services covered under preventive benefits
    - look to ICD code to tell health plans “why” service is provided

# Explanation of Benefits (EOBs) Medicaid

- Medicaid does not routinely send  EOBs
  - Denials are exception
- No control over lab bills/statements

# ADOLESCENT SEXUAL HEALTH BEHAVIORAL ASSESSMENT

Available tools



# CONFIDENTIAL

## Health Survey for Adolescents

Everyone is faced with choices and situations that are complicated. The purpose of these questions are to give your doctor or nurse information to care for you. If you have any questions about these subjects, ask your doctor or nurse.

**YOU DO NOT HAVE TO ANSWER THE QUESTIONS.** If you choose not to fill it out, please read the questions anyway because your

**Please circle your answer to each of the following questions:**

1. **How often do you use a helmet when you rollerblade, skateboard, bicycle, or ride a motorcycle, minibike or ATV?**

   Always  Sometimes  Rarely or never

2. **How often do you wear a seat belt when you ride in a car, truck or van?**

   Always  Sometimes  Rarely or never

3. **Are you having any problems in school?**

   Rarely or never  Sometimes  Always

   **Circle all that apply**. . . grades, fighting, missing school

4. **Have you ever felt you had a problem with your weight?** (underweight, overweight, anorexia, bulimia)

   Rarely or never  Sometimes  Always

5. **Did you ever smoke cigarettes (even if you did not inhale) or chew tobacco?**

   Never  Once or twice  3 or more times

6. **Did you ever drink any alcohol?** (beer, wine, liquor, other)

   Never  Once or twice  3 or more times

7. **Did you ever use drugs?**

   Never  Once or twice  3 or more times

   **Circle all that apply**. . . marijuana, cocaine, crack, heroin, acid, speed, ecstasy, roofies, sniffed inhalants, steroids, hormones, prescription drugs not ordered for you, or others

# ASSESSING SEXUAL BEHAVIOR

Include questions that direct testing

# CDC Recommendations: **The 5 “P”s**

- PARTNERS
- Sexual PRACTICES
- PAST history of STIs
- PREGNANCY
- PROTECTION from STI

http://www.cdc.gov/std/tg2015/clinical.htm

# CHLAMYDIA AND GONORRHEA TESTING

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

POLICY STATEMENT

# Screening for Nonviral Sexually Transmitted Infections in Adolescents and Young Adults

## abstract

FREE

Prevalence rates of many sexually transmitted infections (STIs) are highest among adolescents. If nonviral STIs are detected early, they can be treated, transmission to others can be eliminated, and sequelae can be averted. The US Preventive Services Task Force and the Centers for Disease Control and Prevention have published chlamydia, gonorrhea, and syphilis screening guidelines that recommend screening those at risk on the basis of epidemiologic and clinical outcomes data. This policy statement specifically focuses on these curable, nonviral STIs and reviews the evidence for nonviral STI screening in adolescents, communicates the value of screening, and outlines recommendations for routine nonviral STI screening of adolescents. *Pediatrics* 2014;134:e302–e311

COMMITTEE ON ADOLESCENCE and SOCIETY FOR ADOLESCENT HEALTH AND MEDICINE

**KEY WORDS**
sexually transmitted infections, nonviral STIs, chlamydia, gonorrhea, syphilis, screening

**ABBREVIATIONS**
AAP—American Academy of Pediatrics
CDC—Centers for Disease Control and Prevention
CLIA—Clinical Laboratory Improvement Amendment
FDA—Food and Drug Administration
MSM—males who have sex with males
NAAT—nucleic acid amplification test
PID—pelvic inflammatory disease
STI—sexually transmitted infection
USPSTF—US Preventive Services Task Force

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## EVIDENCE TO SUPPORT NONVIRAL STI SCREENING

The goal of sexually transmitted infection (STI) screening is to identify and treat individuals with treatable infections, reduce transmission

http://pediatrics.aappublications.org/content/134/1/e302.full?sid=50fe6151-a9fd-4418-85a7-653186441f4f

# Other STI screening guidelines

- CDC:

www.cdc.gov/std/treatment

- USPSTF:
  www.uspreventiveservicestaskforce.org/uspstopics.htm

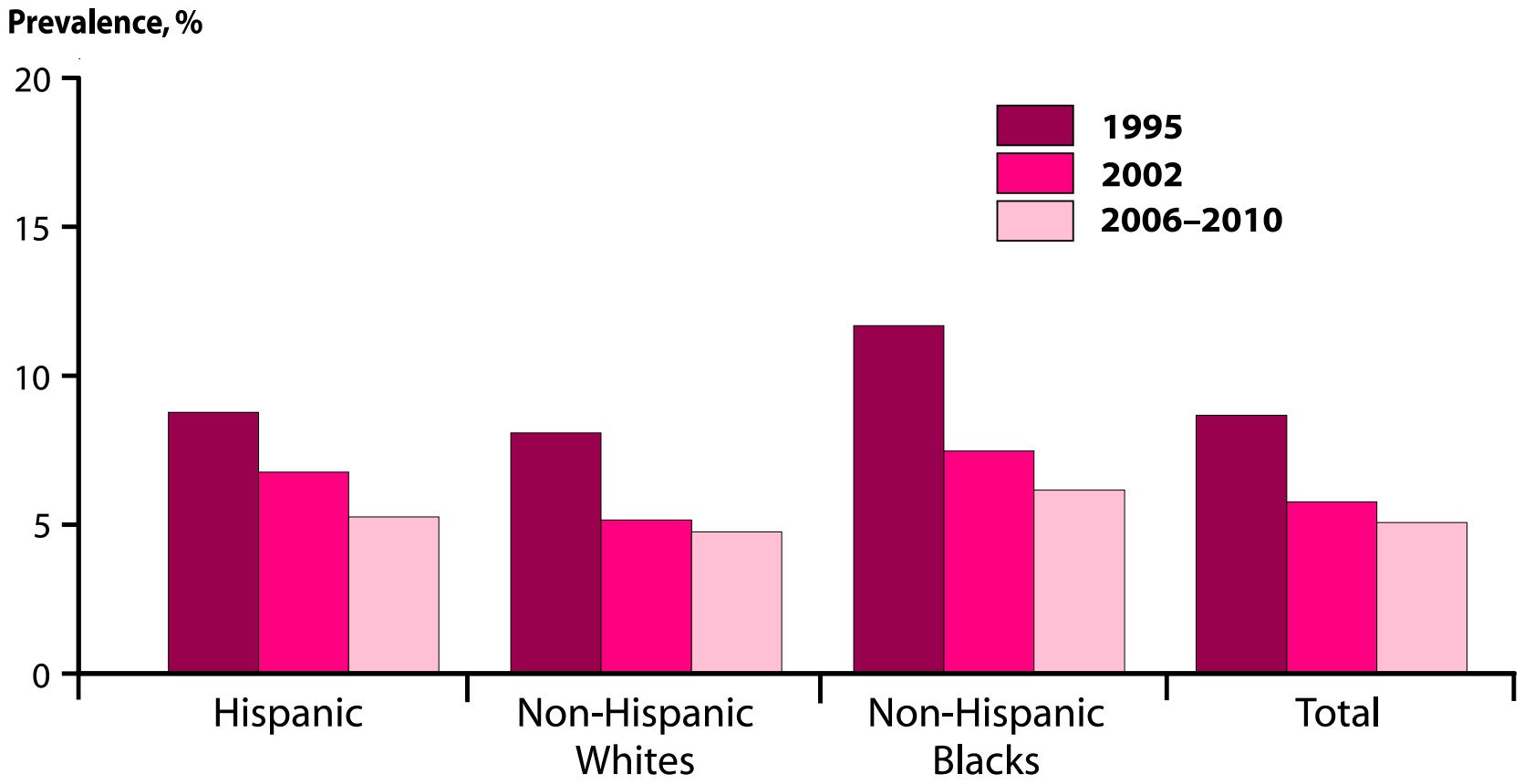
- ACOG:

www.acog.org/Resources-And-Publications

# Chlamydia (CT) and Gonorrhea (GC): ♀

- Routinely screen all sexually active ♀ ≤25 years annually for CT and GC

# PID – Trends in Lifetime Prevalence of Treatment Among Sexually Experienced ♀ Aged 15-44 Yrs by Race/Ethnicity, NSFG, 1995, 2002, 2006–2010




**SOURCE:** Leichliter, Jami, Chandra Anjani, Aral SO**.** Correlates of Self-Reported Pelvic Inflammatory Disease Treatment in Sexually Experienced Reproductive-Aged Women in the United States, 1995, 2002, 2006–2010. Sex Transm Dis. 2013;40(5):413-418.

# CT and GC : ♂ who have sex with ♂

- Routinely screen sexually active adolescent and young adult MSM annually based on sexual behavior
  - Rectal and urethral CT and GC
  - Pharyngeal GC
  - Screen every 3 to 6 months if high risk
    - multiple or anonymous partners, sex with illicit drug use, or sex partners who participate in these activities

# CT and GC : ♂ who have sex with ♀

- CT: Consider screening sexually active annually in settings with high prevalence rates with multiple partners
  - adolescent/primary care clinics, jails or juvenile corrections facilities, national job training programs, STD clinics, or high school clinics
- GC: Most male urethral GC infection symptomatic
  - Consider screening ♂ who have sex with ♀ annually on basis of individual and population risk factors
  - Substantial racial disparity exits for gonorrhea

# Other STIs recommended screening

- **Syphilis**: MSM and **pregnant** ♀
- Trichomonas: consider screening ♀ if high risk for infection
- Routine screening of asymptomatic adolescents for other STIs not generally recommended
  - BV, HSV, HPV, HAV, HBV

# Prevention Counseling

- Patient-centered, age-appropriate anticipatory guidance
- Integrate sex ed into clinical practice;
  - can use educational materials
- Prevention guidance
  - abstinence
  - safer sexual practices
  - condoms

# Adolescent Healthcare Information Resources

Resources for adolescents and their parents/caregivers on issues such as:

- Sexual Health
- Drugs and Alcohol
- General Health and Wellness
- Sexually Transmitted Infections
- Communication
- Contraception
- Emotional Health

## Websites for Health Information

**Advocates for Youth:**
http://www.advocatesforyouth.org/

Advocates for Youth envisions a society that views sexuality as normal and healthy and treats young people as a valuable resource.

**The American Social Health Association:**
http://www.iwannaknow.org

This is where you will find the facts, the support, and the resources to answer your questions, find referrals, join support groups, and get access to in-depth information about sexually transmitted infections (STIs).

**Campaign for Our Children:**
http://www.cfoc.org/

This website seeks to educate parents and guardians about teen risk-taking behaviors, including sexual activity. Provides sexuality education, tips about communication, resources and links.

**The Center for Young Women's Health (CYWH)**
http://www.youngwomenshealth.org/

CYWH is a collaboration at Children's Hospital Boston. The Center is an educational entity that exists to provide teen girls and young women with carefully researched health information.

Similar site for males at:
http://youngmenshealthsite.org/

**Children Now:**
http://www.talkingwithkids.org/

Provides information for parents/caregivers on how to talk to their children about sexuality, health, drugs/alcohol, the media, etc.

**Columbia University's Health Promotion Program "Go Ask Alice" website for adolescents and young adults:**
http://www.goaskalice.columbia.edu/

A health Q&A Internet resource. It provides readers with information and a range of thoughtful perspectives so that they can make responsible decisions concerning their health and well-being.

**Rutgers, the State University of New Jersey, teen sexual health:**
http://www.sexetc.org/

Information, Q&As, forums, videos, and daily live teen chats about sexual health.

**MTV collaboration with Kaiser Family Foundation:**
http://www.itsyoursexlife.com/

Here you will find reliable information about decision making, how to talking openly with your partner and how to stay healthy by using protection and getting tested regularly for HIV and other STDs. Also includes entertainment and special programming.

**Planned Parenthood Teens:**
http://www.teenwire.com/

Provides access to the complete array of sexual and reproductive health information, services, and advocacy.

**Society of Obstetricians and Gynecologists of Canada:**
www.sexualityandu.ca

Provides information on sexual health, contraception, sexual identity, etc. Different sections target teens and parent/caregivers.

**Nemours teen health:**
http://teenshealth.org/

A safe, private place for teens who need honest, accurate, doctor-approved information and advice about health, emotions, and life. Also helps parents keep their kids healthier through education

**Wired Kids, Inc.**
http://www.wiredkids.org/

A U.S. charity dedicated to protecting all Internet users, especially children, from cybercrime and abuse, such as bullying.

**The American Academy of Pediatrics**
http://www.healthychildren.org/English/Pages/default.aspx

Information for parents of teens and young adults as well as all the pediatric age groups.

Also, https://bedsider.org/

## Websites for Adolescent Patients and their Parents/Guardians

The **American Social Health Association** website offers parents and teens information about sexual health: http://www.iwannaknow.org

The **Center for Young Women's Health** website provides health information for teen girls around the world: http://www.youngwomenshealth.org/

**Young Men's Health** is a similar website for males featuring state-of-the-art health information: http://youngmenshealthsite.org/

The **Children Now** website is a resource for parents to help in talking with kids about tough issues: http://www.talkingwithkids.org/

**MTV collaboration with Kaiser Family Foundation:** http://www.itsyoursexlife.com/

**Planned Parenthood Teens:** http://www.teenwire.com/

**TeensHealth** is a comprehensive website for teens and parents about all aspects of health: http://teenshealth.org/teen/

**Healthy Children** is the American Academy of Pediatrics website for parents: http://www.healthychildren.org/

The information contained herein is designed for educational purposes only and is not intended to serve as medical advice. The information provided on this site should not be used for diagnosing or treating a health problem or disease. It is not a substitute for professional care. If your child has or you suspect your child may have a health problem, you should consult your physician or contact our office at **(716) 332-4472.**

## More Information


- Websites for Adolescent Patients and their Parents/Guardians
- Confidentiality Statement

# ACIP HPV Vaccine Recommendations

| Population | | Recommendation |
|---|---|---|
| **Gender** | **Age (yrs)** | |
| **Females** | 11-12<br>(as young as 9) | Routine vaccination with either **HPV9, HPV4** or **HPV2** |
| | 13-26 | Routine vaccination with either **HPV9, HPV4** or **HPV2*** |
| **Males** | 11-12<br>(as young as 9) | Routine vaccination: **HPV9 or HPV4** |
| | 13-21 | Routine vaccination: **HPV9 or HPV4** |
| | 22-26 | Permissive recs: **HPV9 or HPV 4** |
| **MSM & HIV+ Males** | 22-26 | Routine vaccination: **HPV9 or HPV 4** |

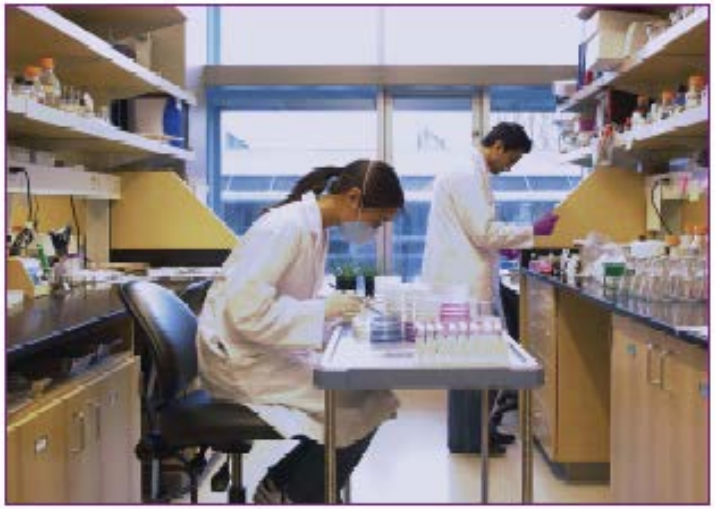
* Irrespective of history of abnormal Pap, HPV, genital warts

*MMWR, May 28 2010; 59(20):626-629 , 630-632*
*MMWR , December 23 2011; 60(50);1705-1708*
*MMWR, March 27, 2015; 64(11);300-304.*

# STI SCREENING

Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Recommendations and Reports / Vol. 63 / No. 2
March 14, 2014

# Recommendations for the Laboratory-Based Detection of *Chlamydia trachomatis* and *Neisseria gonorrhoeae* — 2014



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

www.cdc.gov/std/laboratory/2014LabRec/default.htm

# Chlamydia/Gonorrhea NAAT Screening:
## Preferred Noninvasive Genitourinary Specimens

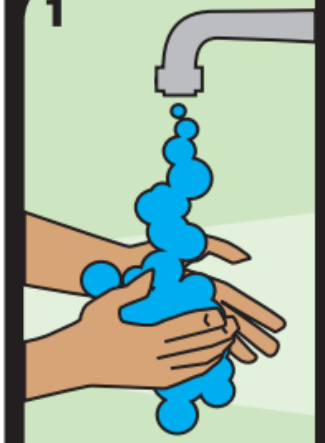
- ♀: **Vaginal swab**
  - Vaginal swab samples are as sensitive as endocervical swab specimens
  - Urine samples acceptable
    - ♀urine may have ↓ performance compared to genital swab samples

- ♂: **Urine**
  - Urethral swab samples may be ↓ sensitive than urine

www.cdc.gov/std/laboratory/2014LabRec/default.htm

# Vaginal Swab

1



Wash your hands with soap.

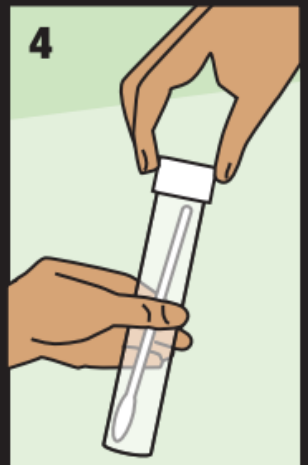
2

Sit on the toilet or stand with one foot resting on the edge of the toilet.
Separate the labia (lips).

3

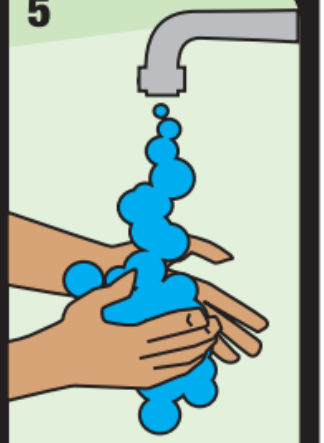
Put the tip of the cotton swab stick about 2cm inside the vagina.
Twirl or rotate the swab once.
Count to ten and remove the swab.

4



Follow instructions given by your doctor or nurse.

5



Wash your hands with soap.

# NONGENITAL GC/CT NAATS

# Performance of NAATs for Diagnosis of **Rectal** Infection

| Rectal Infection | | |
|---|---|---|
| | *C. trachomatis* | *N. Gonorrhoeae* |
| | % Sensitivity/Specificity | % Sensitivity/Specificity |
| SDA | 100/90 | 100/96 |
| | | |
| PCR | 96/92 | 96/96 |
| | | |
| TMA | 100/89 | 100/96 |
| | | |
| Culture | → **46**/99 | → **72**/100 |

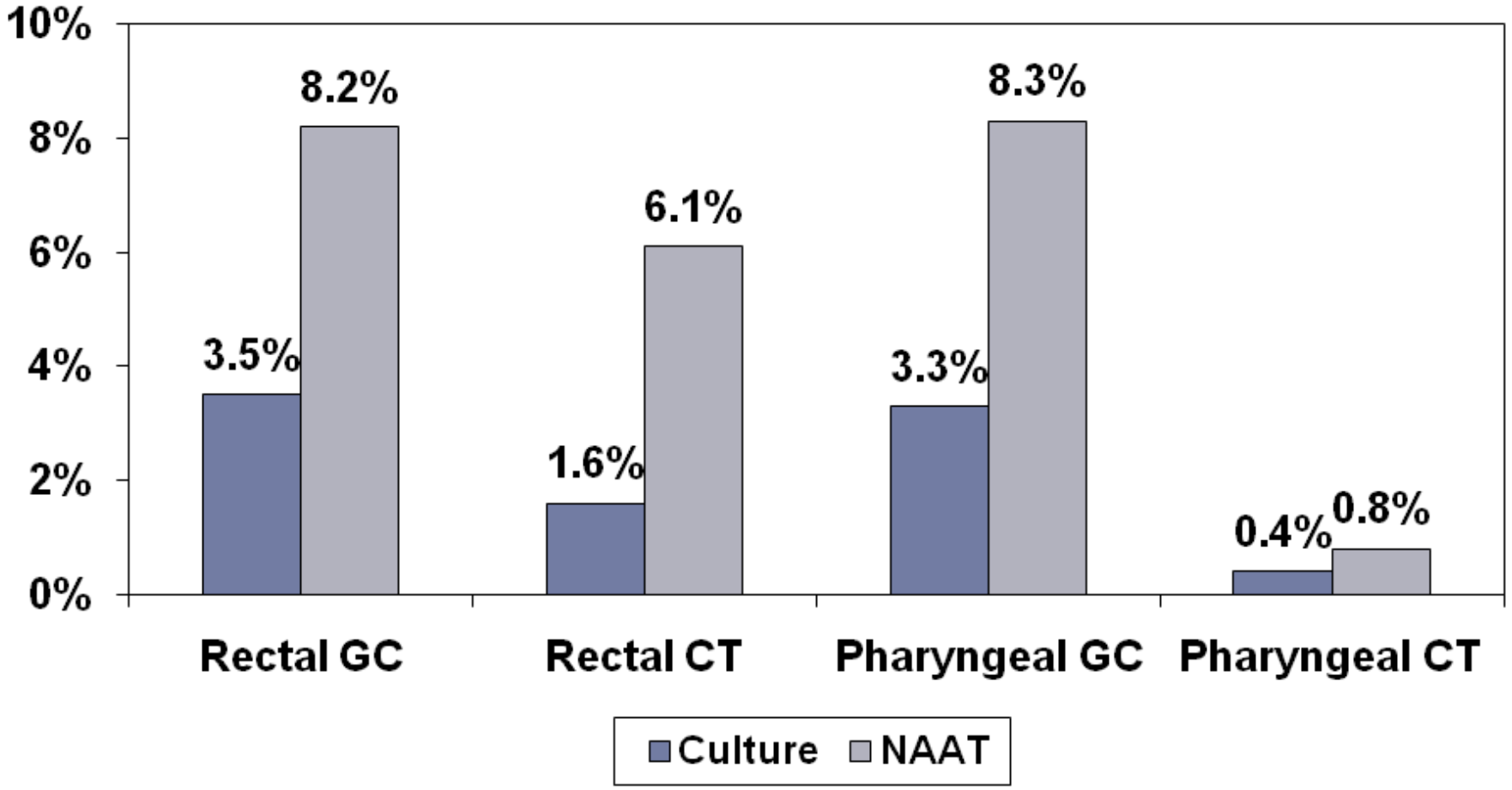
Bachmann, L et al*. J. Clin Microbiol*. 2010;48(5);1827-1832.

# Performance of NAATs for Diagnosis of **Pharyngeal** *N. Gonorrhoeae* Infection

| Pharyngeal Gonococcal Infections (N=961) | | |
|---|---|---|
| | % Sensitivity | % Specificity |
| | | |
| SDA | 97% | 94% |
| | | |
| PCR | 91% | 72% |
| | | |
| TMA | 100% | 96% |
| | | |
| Culture | → **65%** | 99% |

Bachmann, et al. J Clin Micro. 2009;47:902-907.

# Nongenital GC/CT NAAT vs Culture Performance




Schachter J,et al. *Sex Transm Dis*. 2008;35:637-42.

# NAAT endocervical test kit:
## also used for pharynx and rectum

- Pharynx
  - Swab both tonsillar pillars and posterior pharynx (like strep) using a NAAT swab and collection tube
- Rectum
  - Insert NAAT swab 3-5 cm into rectum and rotate gently around the rectum as it is withdrawn

# How to order non-genital GC/CT NAAT

- Use specimen collection kits and swabs for cervical or urethral specimens
- Non-genital GC/CT NAATs can be done by clinical laboratory with CLIA approval
- Lab diagnostics test codes available for pharyngeal, rectal, and urine/urethral from clinical labs that offer testing
  - National clinical labs have CLIA approval, offer tests, and test codes available

# VAGINITIS DIAGNOSTIC TESTS

Point of Care (POC)

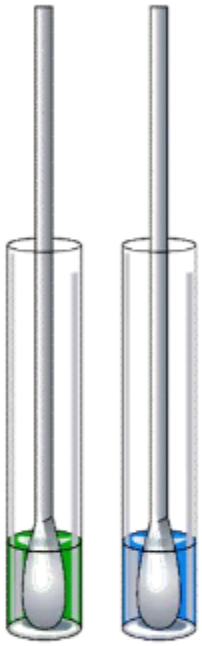
Clinical lab

# CLIA – waived, POC BV test

- OSOM BVBLUE Test (Sekisui Diagnostics, Framingham, MA)
  - detects elevated vaginal fluid sialidase activity, an enzyme produced by bacterial pathogens associated with BV including *Gardnerella, Bacteroides, Prevotella* and *Mobilincus*

- Results available in 10 minutes

OSOM® BVBLUE® Test



The generation of a blue or green color in the testing vessel or on the head of the swab

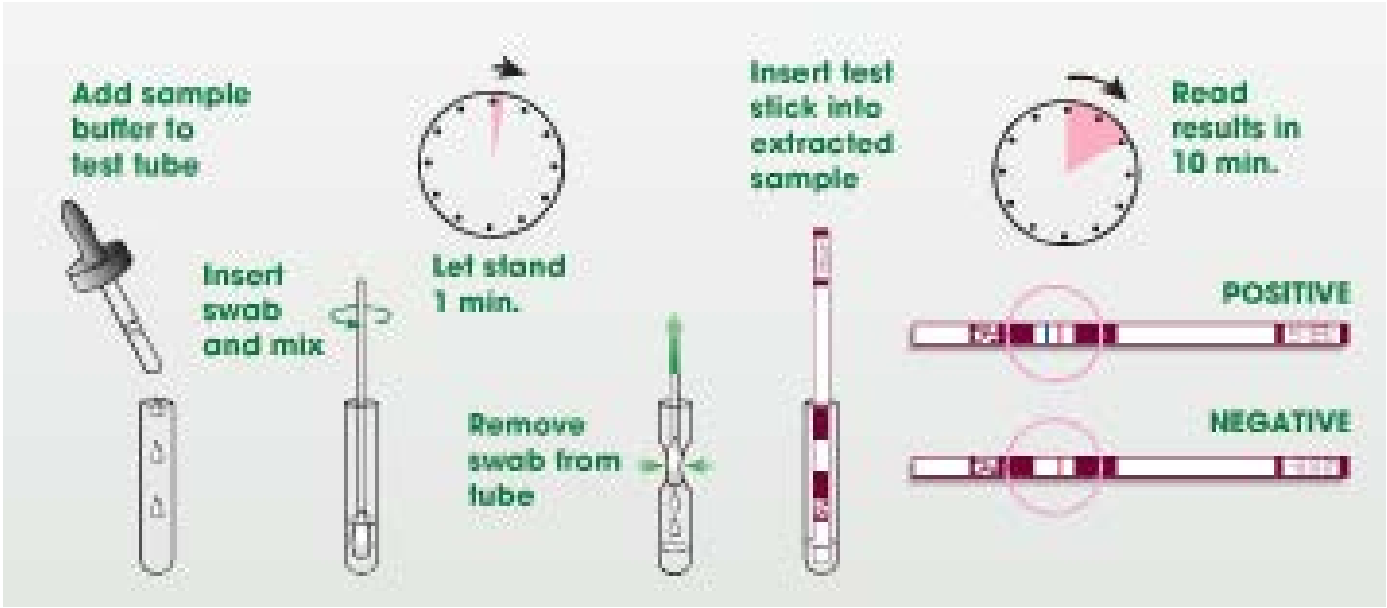
**POSITIVE**

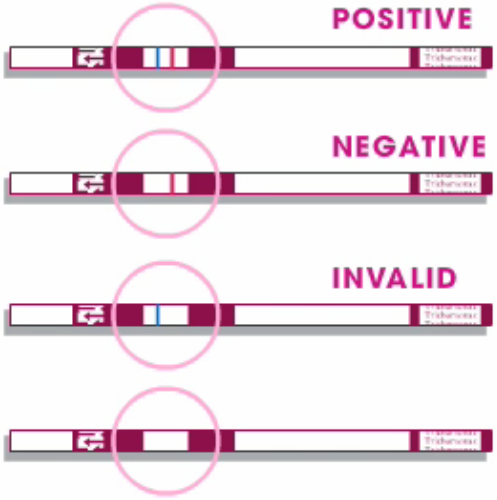
The generation of a yellow color in the testing vessel

**NEGATIVE**

# CLIA – waived, POC,  trichomonas tests

- OSOM Trichomonas Rapid Test (Sekisui Diagnostics, Framingham, MA)
  - immunochromatographic capillary flow dipstick technology
  - test vaginal secretions
  - self-testing may be an option
  - sensitivity 82-95% / specificity 97–100%
- Results available in 10 minutes



OSOM® Trichomonas Rapid Test

# Trichomonas NAATs

- APTIMA Trichomonas vaginalis assay (Hologic Gen-Probe, San Diego, CA)
  - FDA cleared for ♀ vaginal, endocervical, or urine specimens
  - Sensitivity = 95–100% / specificity = 95-100%
  - Can test ♂ urine or urethral swabs if validated per CLIA specification

- BD Probe Tec TV $Q^x$ Amplified DNA Assay (Becton Dickinson, Franklin Lakes, NJ)
  - FDA-cleared for ♀ endocervical, vaginal, or urine specimens

# Other vaginitis lab tests

- Affirm VP III (Becton Dickinson, Sparks, MD)
  - nucleic acid probe-hybridization test
  - FDA-cleared to test vaginal secretions
  - evaluates for *T. vaginalis, G. vaginalis,* and *C. albicans*
  - results available within 45 minutes
  - sensitivity = 63% and specificity = 100%

- Trichomonas Culture
  - vaginal secretions preferred ♀ specimen
  - sensitivity = 75-96% / specificity up to 100%
  - can test ♂ urethral swab, urine, or semen

- Wet prep exam of vaginal secretions
  - sensitivity = 51-65%
  - requires immediate evaluation of the specimens for optimal results

- 2015 STD Treatment Guidelines
- Table of Contents
- Introduction and Methods
- Clinical Prevention Guidance
- Special Populations
- Emerging Issues
- HIV Infection: Detection,Counseling and Referral
- Diseases Characterized by Genital, Anal, or Perianal Ulcers +
- Syphilis +
- Management of Persons Who Have a History of Penicillin Allergy
- Diseases Characterized by Urethritis and Cervicitis
- Chlamydial Infections

STD 2015

Browse the Table of Contents

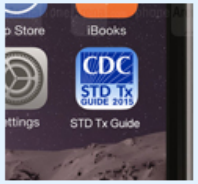
PDF version

View STD Screening Recommendations

## Summary

These guidelines for the treatment of persons who have or are at risk for

## Downloads and Resources




Download the 2015 STD Treatment (Tx) Guide app, an easy-to-use reference that combines information from the STD Treatment Guidelines as well as MMWR updates, and features a streamlined interface so providers can access treatment and diagnostic information. The free app is available for Apple devices. An Android app is currently being developed and will be available this summer.

A limited amount of Wall Charts and Pocket Guides are available for you to order from CDC-INFO on Demand. To print your own, download the high-resolution print files below and take them to a commercial printer.

Pocket Guide

Wall Chart

www.cdc.gov/std/tg2015/default.htm

## Screening Recommendations Referenced in the 2015 STD Treatment Guidelines and Original Recommendation Sources

| | Women | Pregnant Women | Men | Men Who Have Sex With Men (MSM) | Persons with HIV |
|---|---|---|---|---|---|
| **CHLAMYDIA** | Sexually active women under 25 years of age *USPSTF*[1]<br><br>Sexually active women aged25 years and older if at increased risk[2] *USPSTF*[1]<br><br>Retest approximately 3 months after treatment *CDC*[3] | All pregnant women under 25 years of age *USPSTF*[1]<br><br>Pregnant women, aged 25 years and older if at increased risk[2] *USPSTF*[1]<br><br>Retest during the 3rd trimester for women under 25 years of age or at risk[4] *CDC*[3]<br><br>Pregnant women with chlamydial infection should have a test-of-cure 3-4 weeks after treatment and be retested within 3 months *USPSTF*[1] | Consider screening young men in high prevalence clinical settings[5] or in populations with high burden of infection (e.g. MSM) *CDC*[6] | At least annually for sexually active MSM at sites of contact (urethra, rectum) regardless of condom use *CDC*[6]<br><br>Every 3 to 6 months if at increased risk[7] *CDC*[7] | For sexually active individuals, screen at first HIV evaluation, and at least annually thereafter *CDC*[8]<br><br>More frequent screening might be appropriate depending on individual risk behaviors and the local epidemiology *CDC*[8] |
| **GONORRHEA** | Sexually active women under 25 years of age *USPSTF*[1]<br><br>Sexually active women age 25 years and older if at increased risk[9] *USPSTF*[1]<br><br>Retest 3 months after treatment *CDC*[10] | All pregnant women under 25 years of age and older women if at increased risk[11] *USPSTF*[1]<br><br>Retest 3 months after treatment *CDC*[10] | | At least annually for sexually active MSM at sites of contact (urethra, rectum, pharynx) regardless of condom use *CDC*[10]<br><br>Every 3 to 6 months if at increased risk[7] *CDC*[7] | For sexually active individuals, screen at first HIV evaluation, and at least annually thereafter *CDC*[10]<br><br>More frequent screening might be appropriate depending on individual risk behaviors and the local epidemiology *CDC*[10] |
| **SYPHILIS** | | All pregnant women at the first prenatal visit *USPSTF*[11]<br><br>Retest early in the third trimester and at delivery if | | At least annually for sexually active MSM *CDC*[12]<br><br>Every 3 to 6 months if at increased risk[7] | For sexually active individuals, screen at first HIV evaluation, and at least annually thereafter *CDC, HRSA, IDSA, NIH*[14,15,16] |

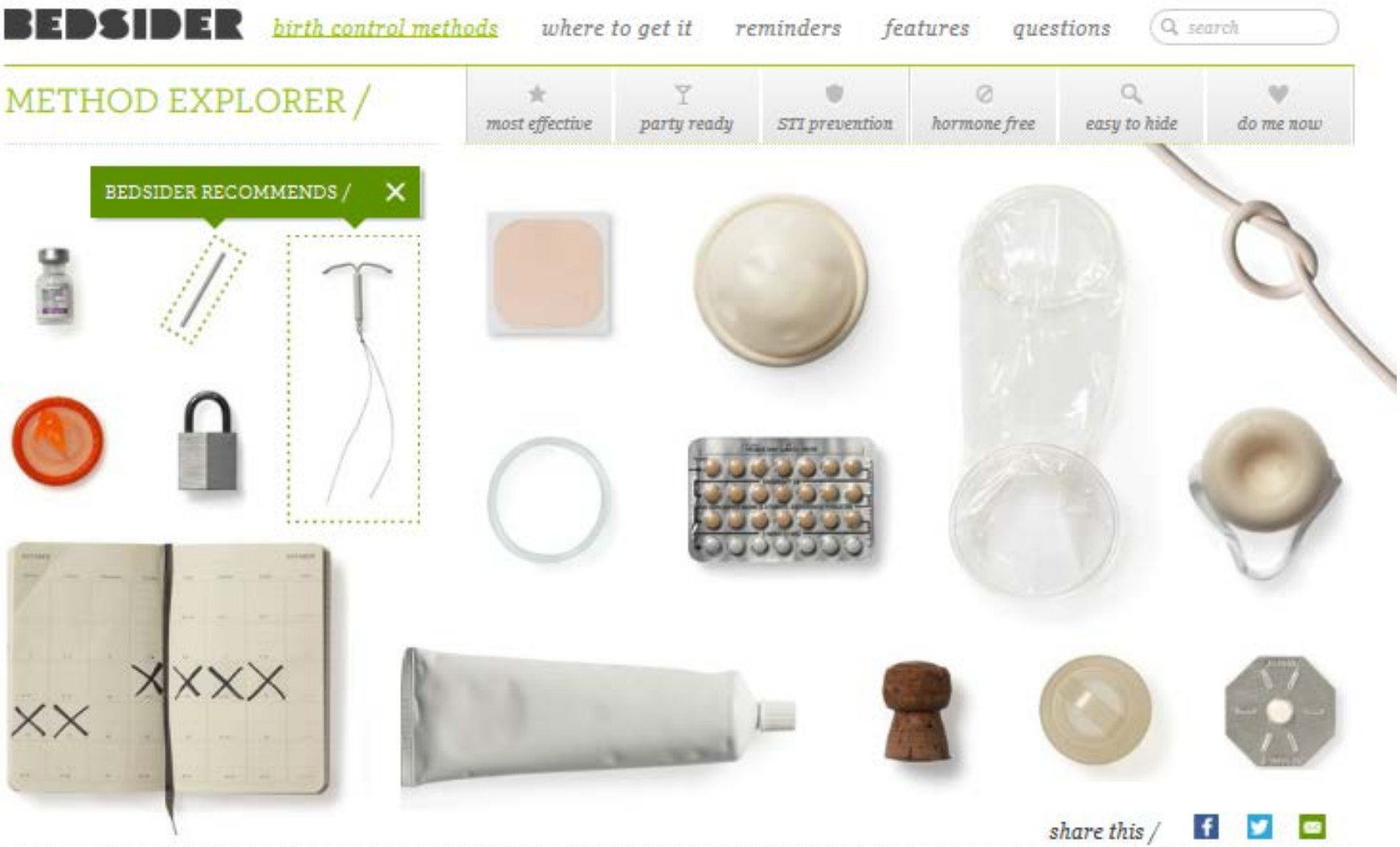
www.cdc.gov/std/tg2015/screening-recommendations.htm

# Want to know more about STDs?

## *There's an app for that.*

CDC Treatment Guidelines App for Apple and Android

http://www.cdc.gov/std/tg2015/




https://bedsider.org/methods

# Questions???