

Ask Screen Intervene

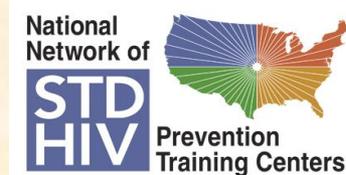
# Effective Prevention in HIV Care

## ***Module 1***

### ***Behavioral Risk Assessment and STD Screening***

**Developed by:**

**The National Network of STD/HIV Prevention Training Centers, in conjunction with the AIDS Education & Training Centers**



# ***Overview: Module 1***

- ◆ **Rationale for HIV prevention as routine part of HIV care**
- ◆ **Elements of brief risk assessment**
- ◆ **Screening for STDs in HIV care**

# *National HIV/AIDS Strategy*

## Vision for the National HIV/AIDS Strategy

“The United States will become a place where new HIV infections are rare and when they do occur, every person, regardless of age, gender, race/ethnicity, sexual orientation, gender identity or socio-economic circumstance, will have unfettered access to high quality, life-extending care, free from stigma and discrimination.”

*Handout 1*

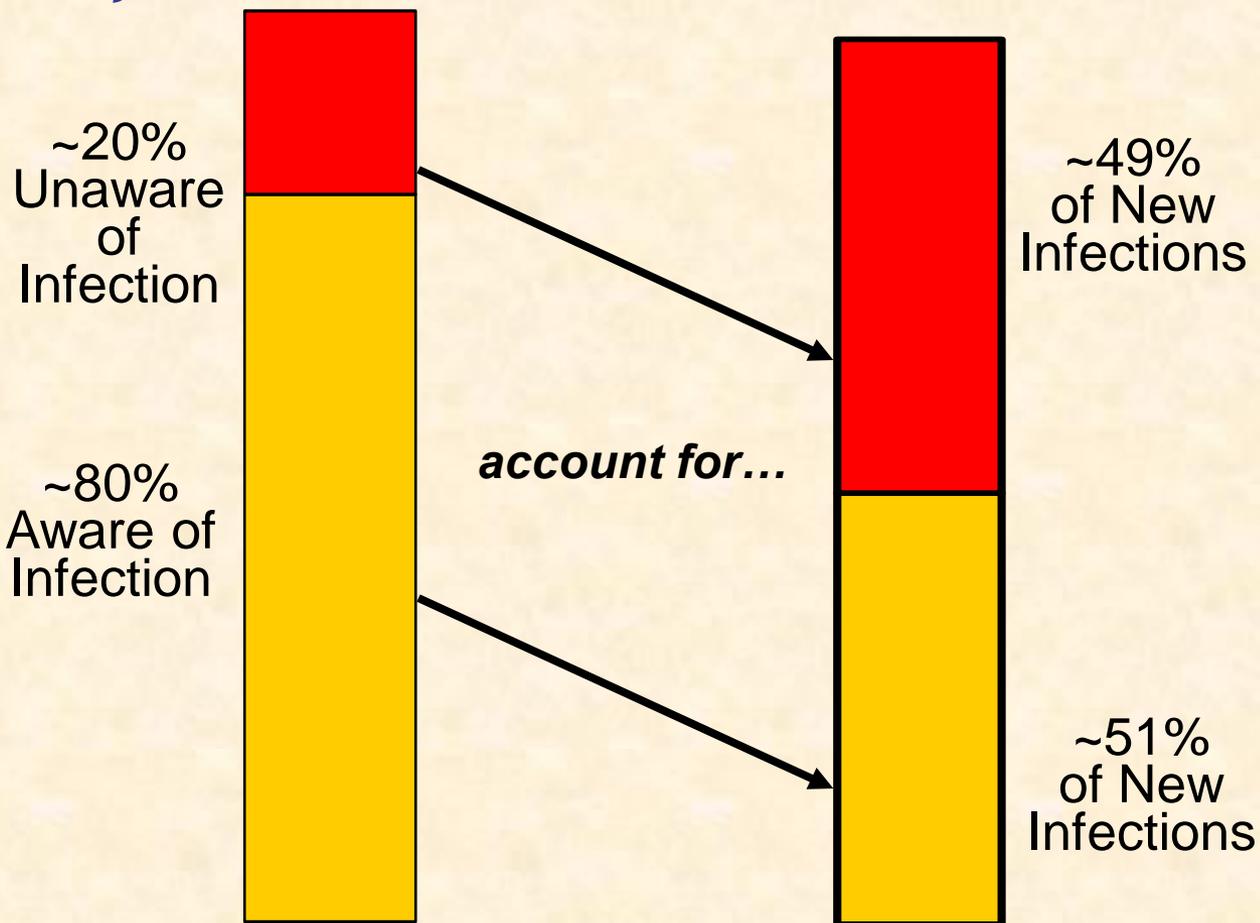
*National HIV/AIDS Strategy.* <http://www.whitehouse.gov/administration/eop/onap/nhas>



# *Magnitude of HIV Epidemic in the U.S.*

- ◆ 1.2 million people living with HIV
- ◆ Each year, about
  - 50,000 new infections
    - ❖ Stable incidence over past 15 years, despite effective prevention methods
  - 17,000 deaths among people living with AIDS
  - Net increase of 33,000 people living with HIV

# Awareness of Serostatus Among People with HIV, and Estimates of Transmission



People Living with HIV/AIDS: 1,200,000

New Sexual Infections Each Year: ~50,000

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# ***CDC's High-Impact HIV Prevention Plan***

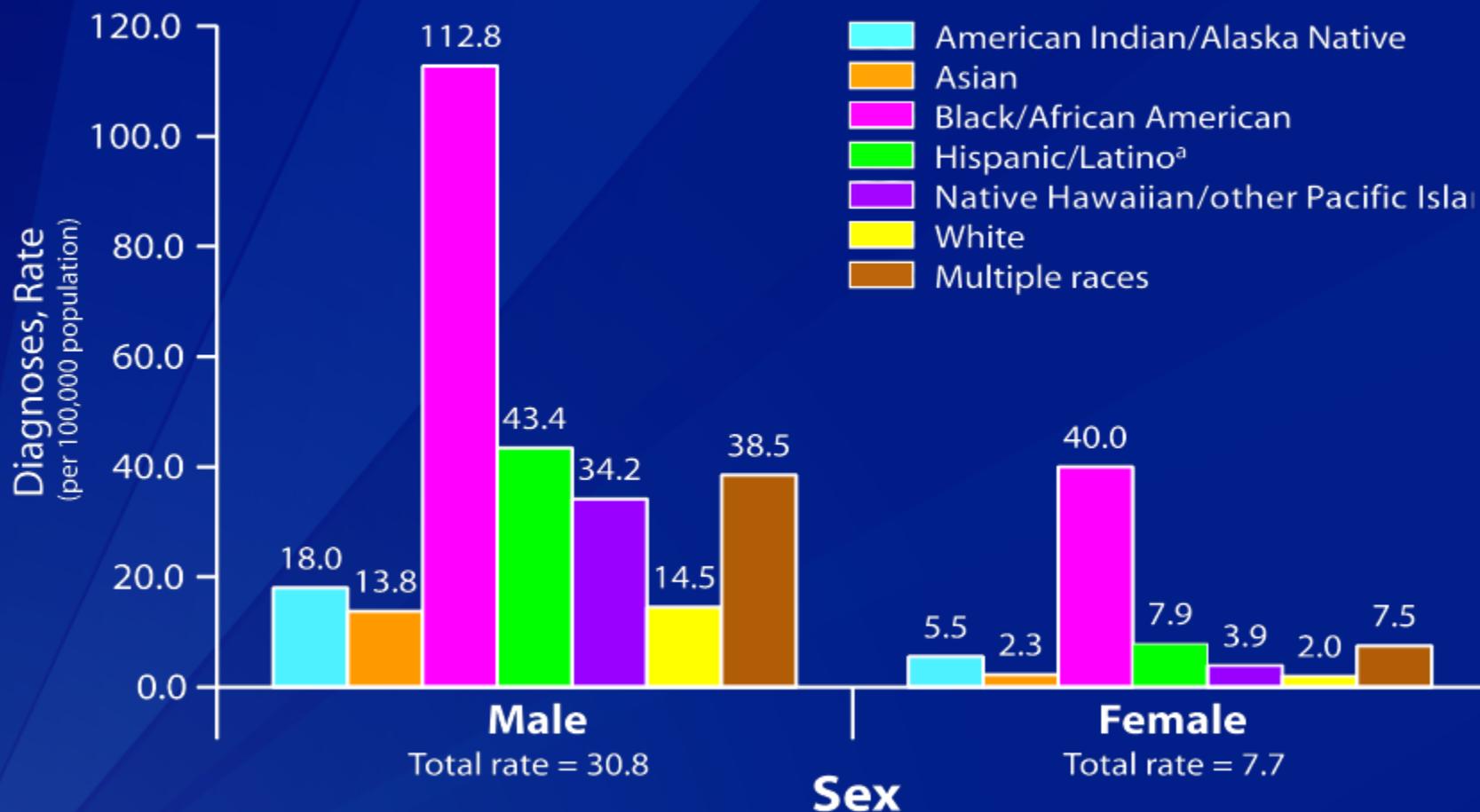
**GOAL:** to maximize impact of prevention efforts for persons at risk for HIV infection: gay and bisexual men, communities of color, women, injection drug users, transgender women and men, and youth.

- ◆ Use combinations of scientifically proven, cost-effective, and scalable interventions
- ◆ Target the right populations in the right geographic areas

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*CDC, High-impact HIV prevention: CDC's approach to reducing HIV infections in the United States, 2011.*  
<http://www.cdc.gov/hiv/strategy/hihp>

# Rates of Diagnoses of HIV Infection among Adults and Adolescents, by Sex and Race/Ethnicity, 2011—United States

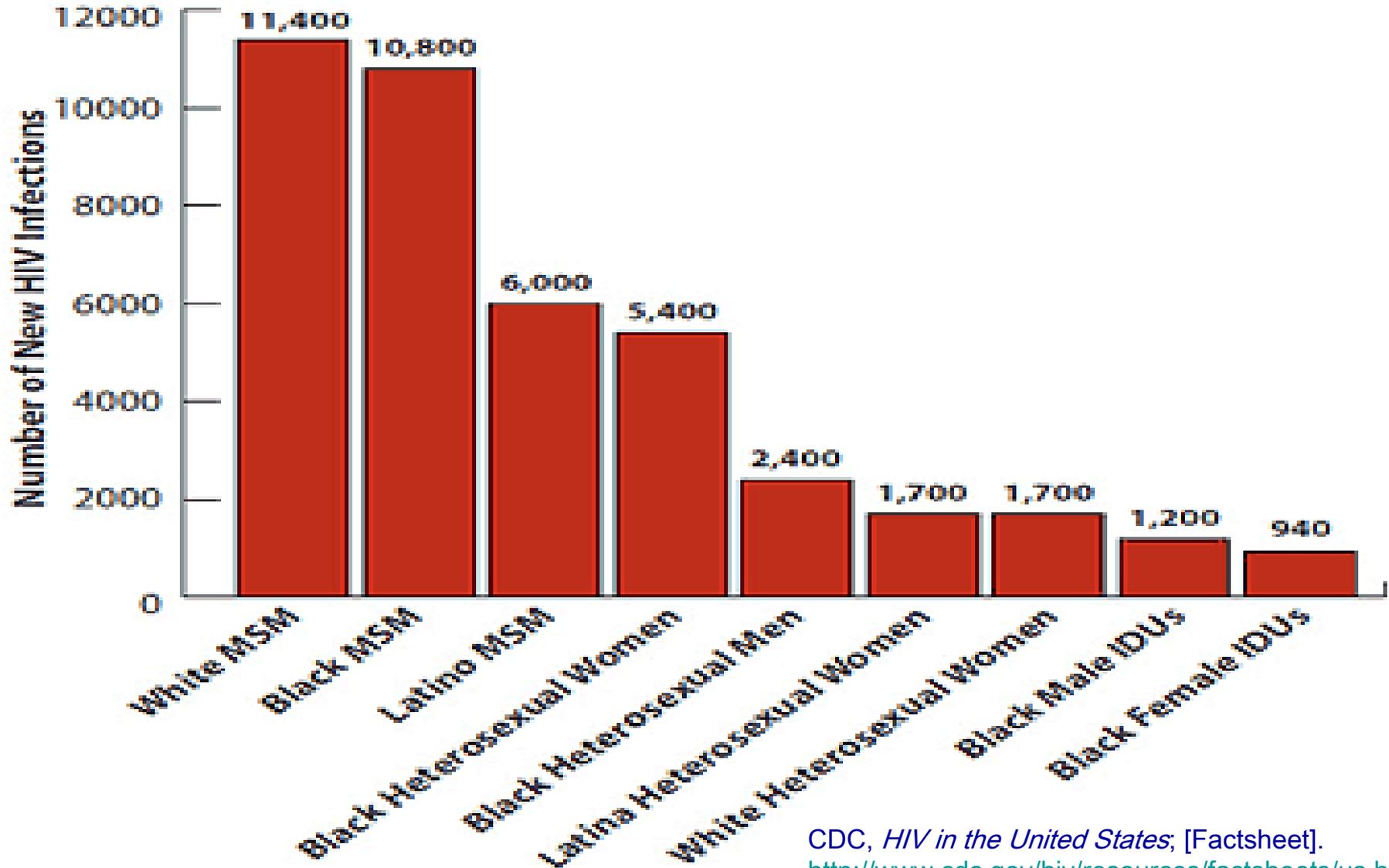


Note. Data include persons with a diagnosis of HIV infection regardless of stage of disease at diagnosis. All displayed data have been statistically adjusted to account for reporting delays, but not for incomplete reporting. Rates are per 100,000 population.

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



# 95% of PLWHA are MSM, African American, Latino or IDU



# ***Social Determinants Affect Health***

- ◆ Health is affected by complex, integrated, and overlapping social structures and economic systems
- ◆ Health disparities are linked to lack of opportunity and resources
  - **Social environment**
    - ❖ **discrimination, income, education level, marital status, homophobia, stigma**
  - **Physical environment**
    - ❖ **place of residence, crowding conditions, buildings, transportation systems**
  - **Health services**
    - ❖ **access to and quality of care, insurance status**

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*CDC, Establishing a holistic framework to reduce inequities in HIV, viral hepatitis, STDs, and tuberculosis in the United States, 2010.*

<http://www.cdc.gov/socialdeterminants/docs/SDH-White-Paper-2010.pdf>

# STD/HIV Co-infection Is Common

Ongoing Sexually Transmitted Disease Acquisition  
and Risk-Taking Behavior Among US HIV-Infected  
Patients in Primary Care: Implications for Prevention  
Interventions

*Kenneth H. Mayer, MD,\* Timothy Bush, BA,† Keith Henry, MD,‡ Edgar T. Overton, MD,§  
John Hammer, MD,¶ Jean Richardson, PhD,|| Kathy Wood, RN, BSN,\*\* Lois Conley, MPH,†  
John Papp, MSc, PhD,†† Angela M. Caliendo, MD, PhD,‡‡ Pragna Patel, MD, MPH,†  
and John T. Brooks, MD†; the SUN Investigators*

- 557 HIV-infected in primary care in 4 cities
- Screened / treated for STD initially and at 6 months
- 13% with STD at baseline; 7% new STD at 6 months
  - 94% of incident STDs were in MSM
- 20% of all MSM diagnosed with an STD at baseline or by 6 months

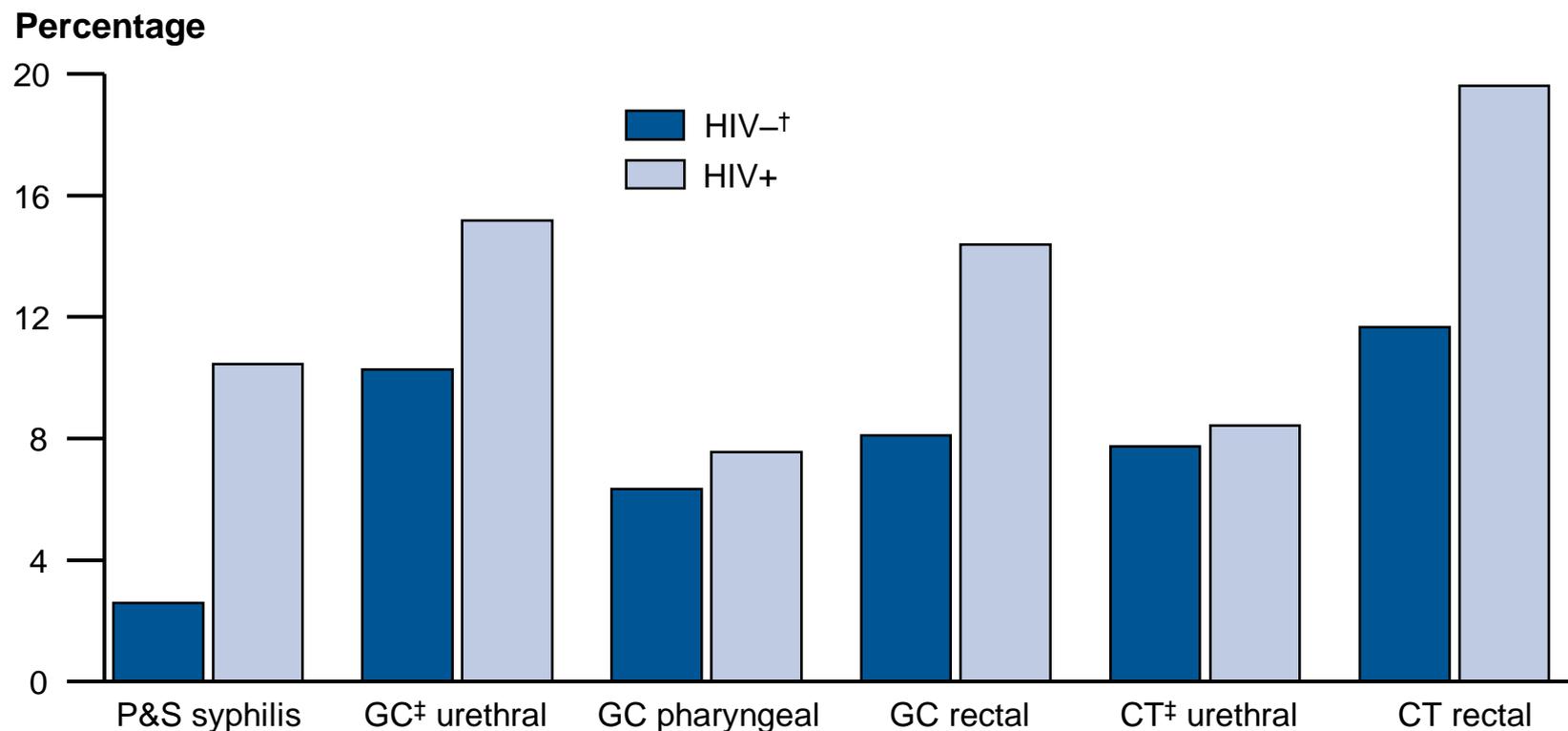
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*Mayer et al, Sex Trans Dis 2012*

# ***HIV and Syphilis Diagnoses have Increased in Young MSM***

- ◆ Survey of trends in HIV and syphilis diagnoses in 73 large metro areas, 2004/2005 and 2007/2008
- ◆ Primary and secondary syphilis rates increased in 70% of areas
- ◆ Average increases in young black men
  - HIV: 68%
  - Syphilis: 203%

# STD Surveillance Network (SSuN)—Proportion of MSM\* Attending STD Clinics with Primary and Secondary Syphilis, Gonorrhea or Chlamydia by HIV Status, 2010



\* MSM = men who have sex with men.

† HIV negative status includes persons of unknown status for this analysis.

‡ GC urethral and CT urethral include results from both urethral and urine specimens.

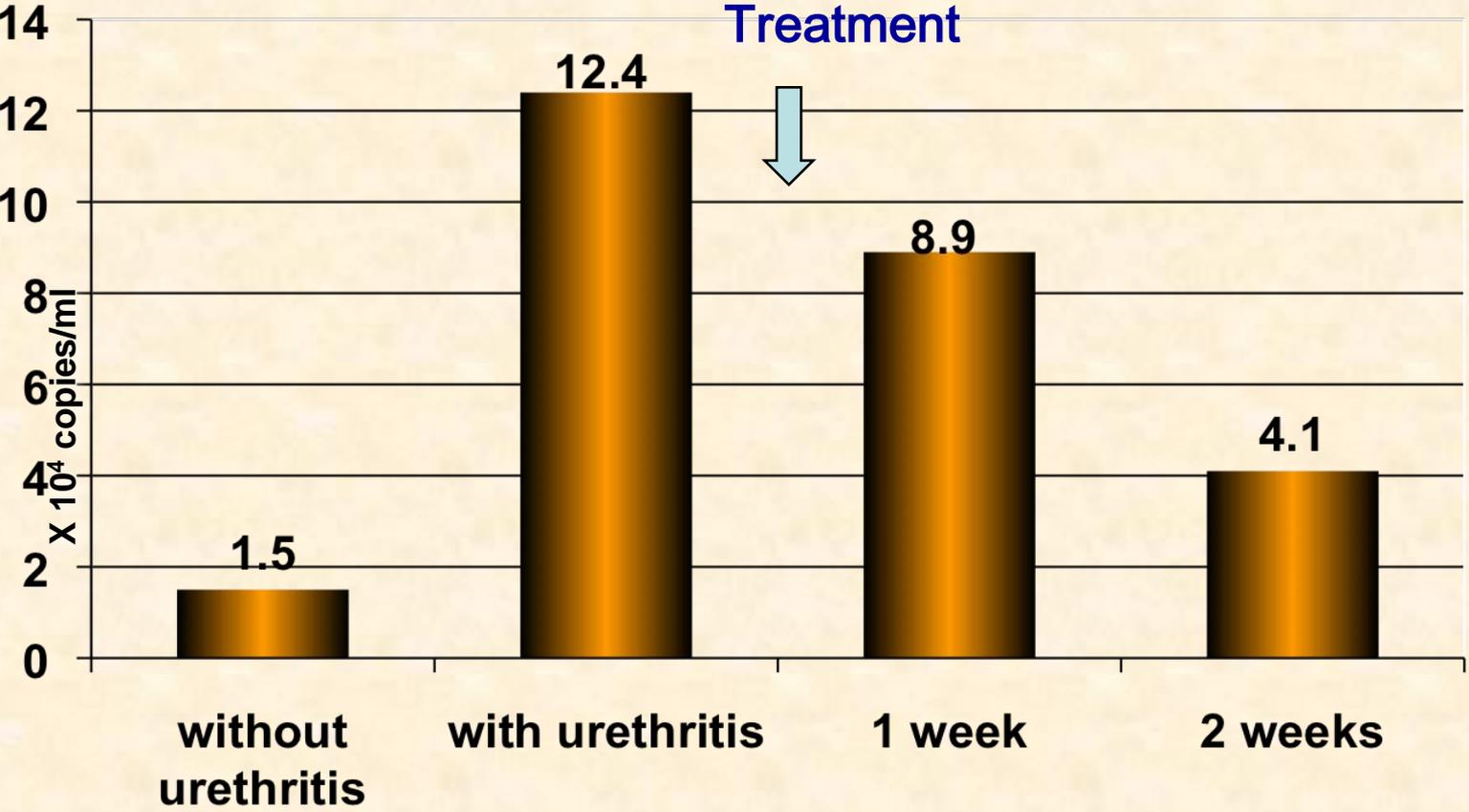
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# ***STDs are Associated with Increased HIV Transmission and Acquisition***

- ◆ STD increase amount of HIV shed the cervix, urethra, rectum
- ◆ STD can produce breaks in mucosa, and inflammation
  - Genital ulcers: herpes and syphilis
  - Inflammation: gonorrhea, non-gonococcal urethritis
- ◆ Infection with *T. vaginalis* increases HIV shedding
- ◆ STD may increase viral load

# Urethritis Increases HIV Shedding in Semen



*Median Concentration of HIV-1 RNA in Semen Among 135 HIV-Infected Men With and Without Urethritis in Malawi*

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Cohen et al, *Lancet*, 1997.

# Overview of High-Impact Prevention Strategies

## PREVENTION WITH POSITIVES

HIV testing  
Linkage to care  
ART  
Retention in care  
Adherence

**STD screening and treatment**

**Risk reduction interventions**

**Partner services**

Perinatal transmission intervention

## PREVENTION WITH NEGATIVES

Risk reduction interventions  
Condoms  
PrEP  
PEP  
nPEP

Needle exchange

Male circumcision

Microbicides

**STD screening and treatment**

## SEROSTATUS NEUTRAL

Social mobilization  
Condom availability  
Needle/syringe services  
Substance use, mental health  
and social support

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**Effective  
Prevention in  
HIV Care**

***Ask***

***Intervene***

***Screen***

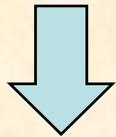
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# *Risk Assessment Serves Multiple Purposes*

**Risk Assessment**  
**Symptoms**



**Guides Prevention Interventions**  
*Risk reduction interventions*  
*Partner Services*  
*Social services referrals*



**Directs exam**

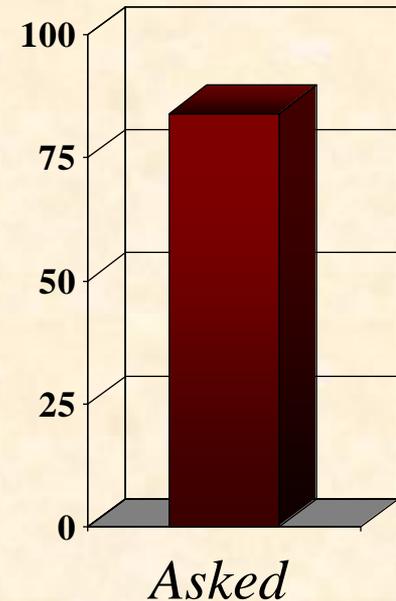
**Determines STD testing, and anatomical site of tests**

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# Proportion of Physicians Discussing Prevention Topics with HIV-Positive Patients

4 US Cities (n=317)

◆ **Adherence to ART 84%**



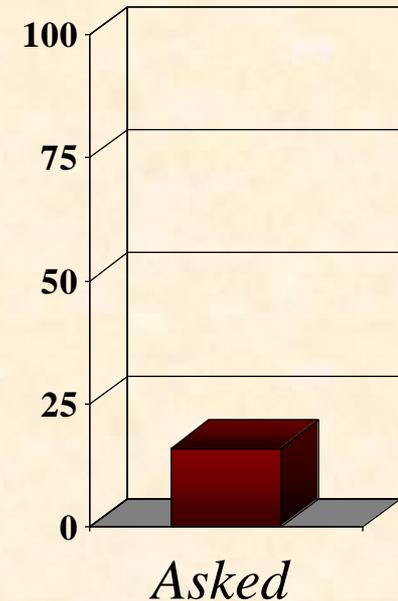
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Metsch et al, *AJPH*, 2004.

# Proportion of Physicians Discussing Prevention Topics with HIV-Positive Patients

4 US Cities (n=317)

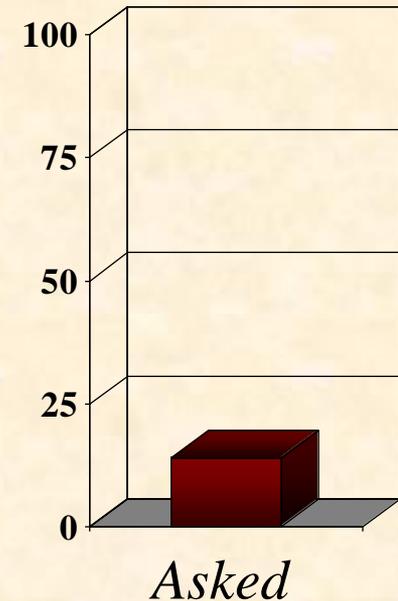
- ◆ Adherence to ART 84%
- ◆ Condom use 16%



# Proportion of Physicians Discussing Prevention Topics with HIV-Positive Patients

4 US Cities (n=317)

- ◆ Adherence to ART 84%
- ◆ Condom use 16%
- ◆ HIV transmission and/or risk reduction 14%



# ***A Missed Screening and Prevention Opportunity..... TONY***

- ◆ 40 year-old HIV-positive man
- ◆ CD4 = 350, viral load undetectable, on ART
- ◆ Presents for routine visit, feeling well
- ◆ Physical exam, including external genitalia: normal

# *A Missed Screening and Prevention Opportunity...*

- ◆ Provider does not ask about recent sexual activity, or symptoms of STD
  - Tony does not volunteer that his girlfriend, also HIV+, had yeast infection about 1 month ago; at same time, he noticed irritation on his penis, resolved after using miconazole cream
- ◆ No screening tests for STD are performed
- ◆ Continue current regimen
- ◆ Routine follow-up in 3 months

# *A Missed Diagnostic Opportunity...*

- ◆ Returns 4 weeks later with generalized rash
- ◆ Dermatology consult
- ◆ No STD tests performed





## *A Missed Opportunity...*

- ◆ Dermatology orders RPR: positive at titer of 1:128, TP-PA reactive
- ◆ Reports receptive/insertive anal and oral sex with 5 male partners in prior 3 months
- ◆ Uses Internet to meet partners, mostly anonymous
- ◆ ‘Almost always’ uses condoms with male partner
- ◆ Does not use condoms with girlfriend

***What went wrong?***

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# ***Provider Barriers to Screening for Behavioral Risk Factors***

- ◆ Inexperience or discomfort asking questions
- ◆ Discomfort responding to issues that arise
- ◆ Incorrect assumptions about sexual behavior and risk
- ◆ Limited time
- ◆ Reimbursement issues

<http://nnptc.org/resources/coding-guidance-for-routine-hiv-testing-and-counseling-in-health-care-settings/>

# ***Making the Risk Assessment Routine***

- ◆ Set clinic policy
  - ◆ Identify specific questions to ask all patients
  - ◆ Use self-administered tools
- ◆ Develop plan to respond to information that might surface
  - ◆ Brief risk reduction interventions
  - ◆ Referrals for higher-intensity interventions





# Identifying Risk: Benefits

## ◆ *Clinician Perspective*

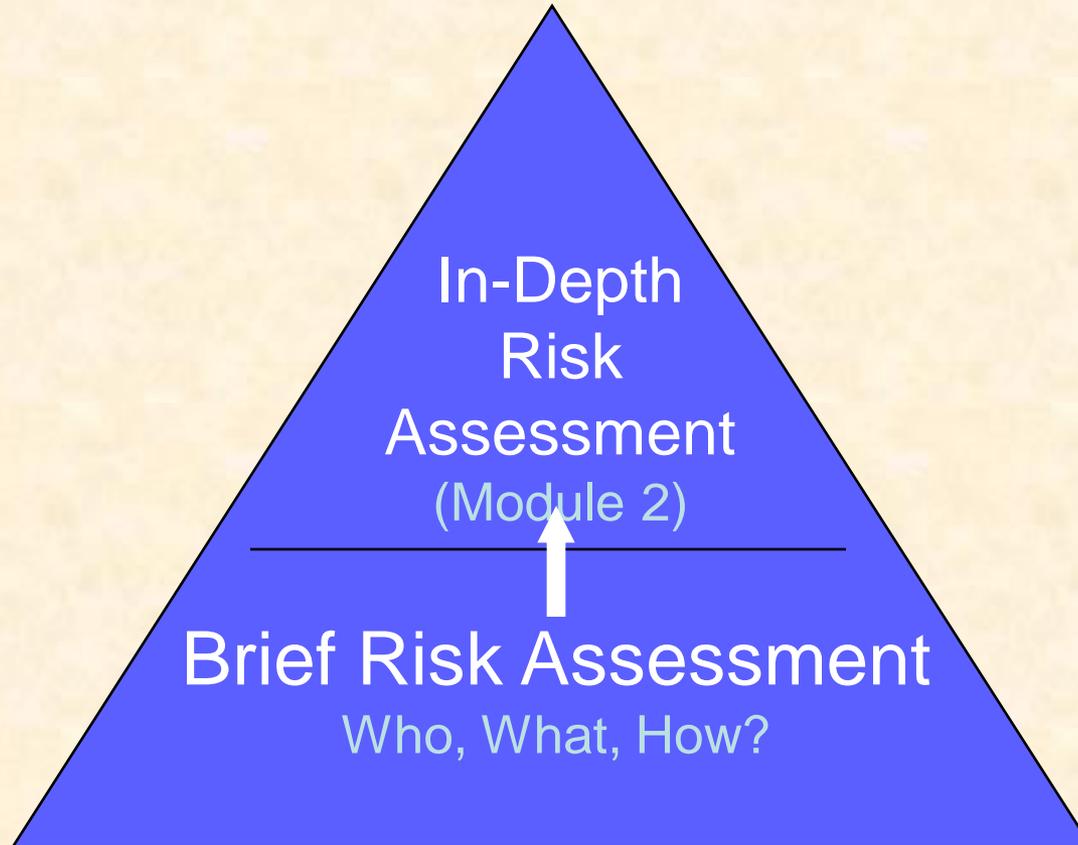
- Directs exam
- Determines screening tests
- Guides risk reduction interventions
- Improves patients overall health

## ◆ *Patient Perspective*

- Opportunity to ask questions
- May affect self-motivation for behavior change
- Patients *want* to have these discussions yet often will not initiate on their own

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# *Asking about Behavioral Risk...*



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# *Framework for Asking about Behavioral Risk*

- ◆ Reinforce confidentiality
- ◆ Be tactful
- ◆ Be clear
- ◆ Check your assumptions...
- ◆ Be non-judgmental

# ***Risk Assessment Techniques***

- ◆ ***Open the conversation***
- ◆ ***Lead with Open-ended Questions***
- ◆ ***Use Closed-ended Questions to fill in details***

# ***Risk Assessment: Opening the Conversation***

- ◆ **Determine whether the patient has been having sex...**

*“To provide the best care, I ask all my patients about their sexual activity – so, tell me how do you get your sexual needs met.”*



# **Risk Assessment:**

## **What Should We Ask? WHO**

### ◆ **Partners**

#### ***“Tell me about your partners”***

##### ◆ **Gender**

*“Have you had sex with men, women or both?”*

##### ◆ **Number**

*“How many partners have you had (in the 3 months, in the past year, since I saw you last)?”*

##### ◆ **New partners**

*“How many of those are new partners in that time period?”*

##### ◆ **Partners with other partners**

*“Have any of your partners had sex with others while they were in the relationship with you?”*



# ***Risk Assessment:***

## ***What Should We Ask?***

## **WHAT**

- ◆ **Ask about various types of sexual activity**

*“Tell me about how you have sex”*

*“What types of sex have you been having.....Vaginal? Anal? Oral?”*



# Risk Assessment:

## *What Should We Ask?* **HOW** Prevention Methods

- ◆ Ask about HIV status of sex and/or injection partners...

*“Talk to me about the HIV status of your partners”*

*“How do you protect your partners and yourself during sex?”*

- ◆ Ask about condoms

*“What’s your experience been with condom use?”*

- ◆ Ask about drug-injection equipment...

*“How do you make sure your works are clean?”*



# Communication Skills

Answers about sex practices and drug-related behaviors may need clarification

*“I’m not sure what you mean, could you explain..?”*

❖ **Make no assumptions**

*“Have you had sex with anyone other than your main partner?”*

❖ **Use normalizing statements**

*“Many patients I talk to say they have trouble using condoms....what about you?”*



# ***Skills Practice:***

## **GATHERING THE INFORMATION**

- ◆ Practice the essential elements of a brief behavioral risk screening
  - Introduce the topic
  - Cover WHO, WHAT, and HOW
    - Begin with open-ended questions
    - Use closed-ended questions to gather more specific information
    - Use normalizing statements to encourage the patient to talk



# ***Interact!***

## ◆ ***WHO***

***Gender and number of partners***

## ◆ ***WHAT***

***Vaginal, anal, oral sex***

## ◆ ***HOW***

***Prevention of HIV transmission***

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# *Skills Practice:*

## **DEBRIEFING**



- ◆ What opening question did you use?
- ◆ What information was obtained about WHO, WHAT and HOW?
- ◆ What was challenging?

# Effective HIV Prevention in Routine Care

***Ask***

***Intervene***

***Screen***

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# Screening vs. Diagnostic Testing

## Diagnostic Testing

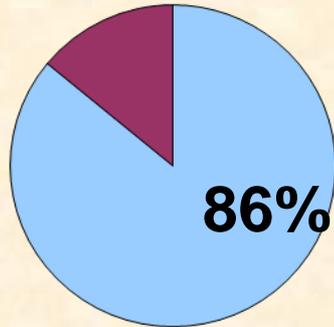
- ◆ **Goal:** to identify the etiology of the problem

## Screening

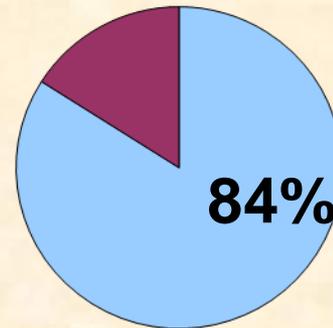
- ◆ **Goal:** test apparently healthy people to find those who may be infected
  - Patient is asymptomatic!

# Majority of Rectal Infections in MSM are Asymptomatic

## Rectal Infections



Chlamydia  
n=316

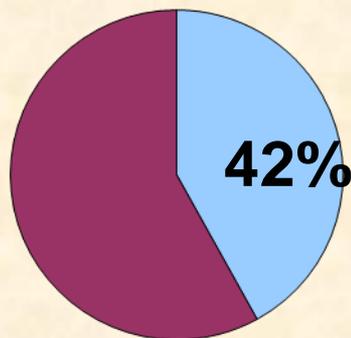


Gonorrhea  
n=264

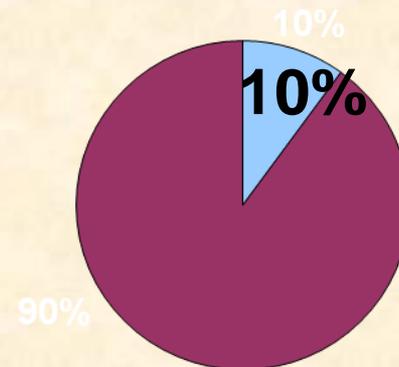


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## Urethral Infections



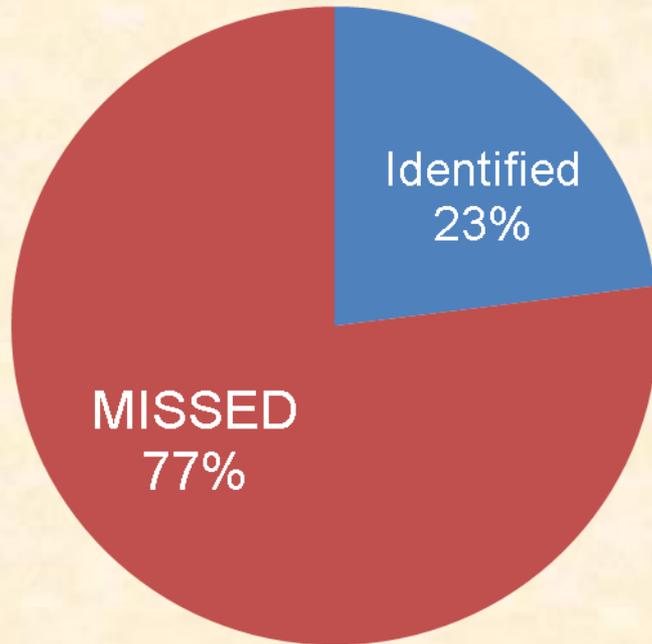
Chlamydia  
n=315



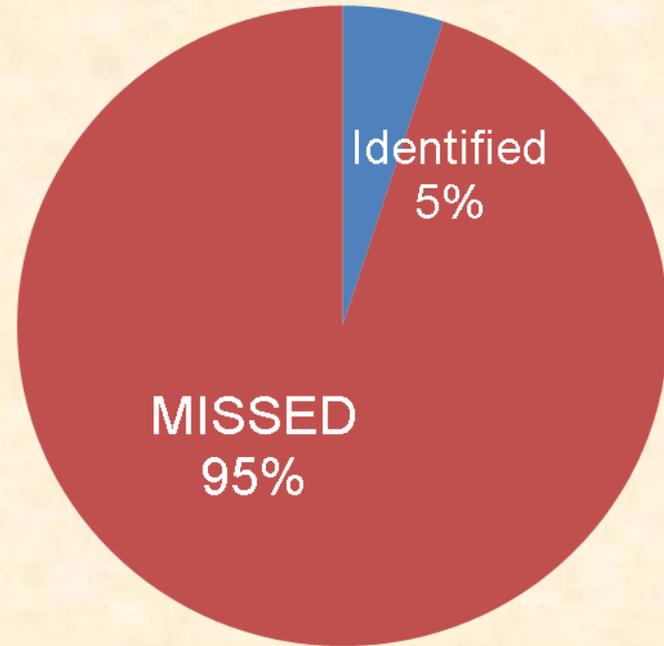
Gonorrhea  
n=364

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Proportion of CT and GC infections **MISSED** among 3398 asymptomatic MSM if screening only urine/urethral sites, San Francisco, 2008-2009



**Chlamydia**



**Gonorrhea**

# *Providers' Questions About Screening*

- ◆ Do I need to treat if *asymptomatic*?
- ◆ How often?
- ◆ What tests?
- ◆ What anatomic sites?
- ◆ Do I need to treat patient's sex partners?
- ◆ How much time?
- ◆ Reimbursement concerns

# STD Screening Recommendations: HIV-positive Men & Women

STI	Anatomic Site
Chlamydia	Genital, rectal if exposed
Gonorrhea	Genital, rectal & oral if exposed
Syphilis	Serology
Trichomonas	Vaginal (women only)
HSV-2	Serology
Hep B sAg	Serology
Hep C	Serology

\*

\* Screen at least annually; repeat screening every 3-6 months as indicated by risk. Consider anal Pap screening for MSM.

*Handout 4*

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Primary Care Guidelines for the Management  
of Persons Infected with HIV, *CID*, 2009.



# *Chlamydia and Gonorrhea: Rectal and Pharyngeal NAAT Testing*

- ◆ Culture is approved, but not widely available
- ◆ NAATs not FDA-cleared for rectal or pharyngeal specimens
- ◆ Validation procedures can be done by labs to allow use of a non-FDA-cleared test or application
  - Two commercial labs (Quest & LabCorp) have validated NAATs, and can provide GC/CT collection kits for rectal/pharyngeal specimens

# ***Optional Slides, STD Screening Slides 47-60***

# ***STD Screening:*** FIRST VISIT, ALL HIV-INFECTED PATIENTS

- ◆ Ask about STD symptoms
- ◆ Syphilis serology
- ◆ Hepatitis A/B/C tests
  - Vaccinate as indicated
- ◆ Consider type-specific antibody test, if herpes status is unknown

2009 HIVMA Primary Care Guidelines  
CDC, *STD Treatment Guidelines*, 2010.



# ***STD Screening:*** FIRST VISIT, HIV-INFECTED MEN

## ◆ **Chlamydia**

- Urine specimen for insertive sex
- Rectal swab specimen, if report receptive anal sex

## ◆ **Gonorrhea**

- Urine specimen for urethral infection
- Rectal swab specimen, if report receptive anal sex
- Pharyngeal swab specimen, if report receptive oral sex

2009 HIVMA Primary Care Guidelines  
CDC, *STD Treatment Guidelines*, 2010.

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*Handout 4*



# ***STD Screening:*** FIRST VISIT, HIV- INFECTED WOMEN

## ◆ **Chlamydia**

- Vaginal or cervical swab, or urine specimen
- Rectal specimen, if receptive anal sex

## ◆ **Gonorrhea**

- Vaginal or cervical swab, or urine specimen
- Rectal and pharyngeal specimens, if receptive anal or oral sex

## ◆ **Trichomoniasis**

- Vaginal wet mount, or POC test for *T. vaginalis*

## ◆ **Pregnancy**

- LMP, current pregnancy, interest in future pregnancy, need for contraception

*Handout 4*

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Aberg et al, *CID*, 2009.  
CDC, *STD Treatment Guidelines*, 2010.



# ***STD Screening:*** SUBSEQUENT VISITS

## ◆ Annual testing

- All sexually active MSM (Syphilis, CT, GC)
- Women thru age 25 (CT and GC)
- Women over age 25: based on risk
- Routine testing of all MSW is not recommended

## ◆ More frequently in MSM (every 3-6 months) depending on risk:

- Multiple or anonymous sex partners
- Sex or needle-sharing partner with above risks
- Methamphetamine or other drug use
- All patients with GC and CT should be retested in 2 months after treatment

*Handout 4*

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Aberg et al, *CID*, 2009.

CDC, *STD Treatment Guidelines*, 2010.



# Non-treponemal and Treponemal Tests for Syphilis

## Non-treponemal tests

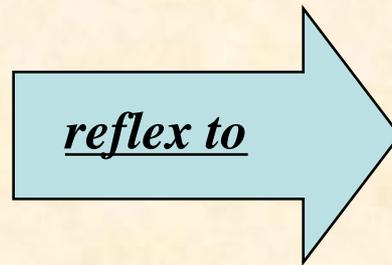
- RPR and VDRL
- Not specific for *T. pallidum*
  - ❖ IgM & IgG antibody directed against cardiolipid -lecithin-cholesterol antigen
- Can be titered

## Treponemal tests

- TPPA, FTA-Abs, automated tests
- Specific for *T. pallidum*
  - ❖ IgM & IgG directed against *T. pallidum* antigens
- Greater sensitivity/specificity than non-treponemal tests
- Are not titered
- Remain positive for life (usually)

# *Traditional Syphilis Screening Algorithm*

**Non-treponemal tests  
(i.e., RPR, VDRL)**



**Treponemal tests  
(i.e., TPPA, FTA-Abs)**

# Reverse Sequence Serologic Screening Algorithm

**Automated Treponemal tests**



**Non-treponemal tests (i.e. RPR, VDRL)**

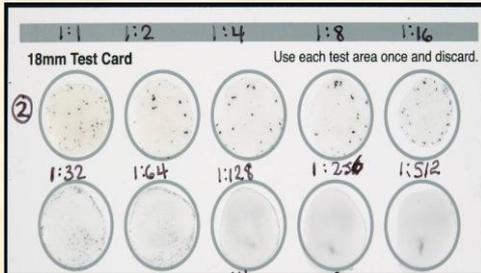
Cannot distinguish between active/old disease (treated/untreated)

Challenges re: management of patients with EIA+, RPR- (discrepant serology)



# Why switch to EIA/CIA for Screening?

- Automated (high throughput)
- Low cost in high volume settings
- Less lab occupational hazard (pipetting)
- More objective results
- No false negatives due to prozone reaction

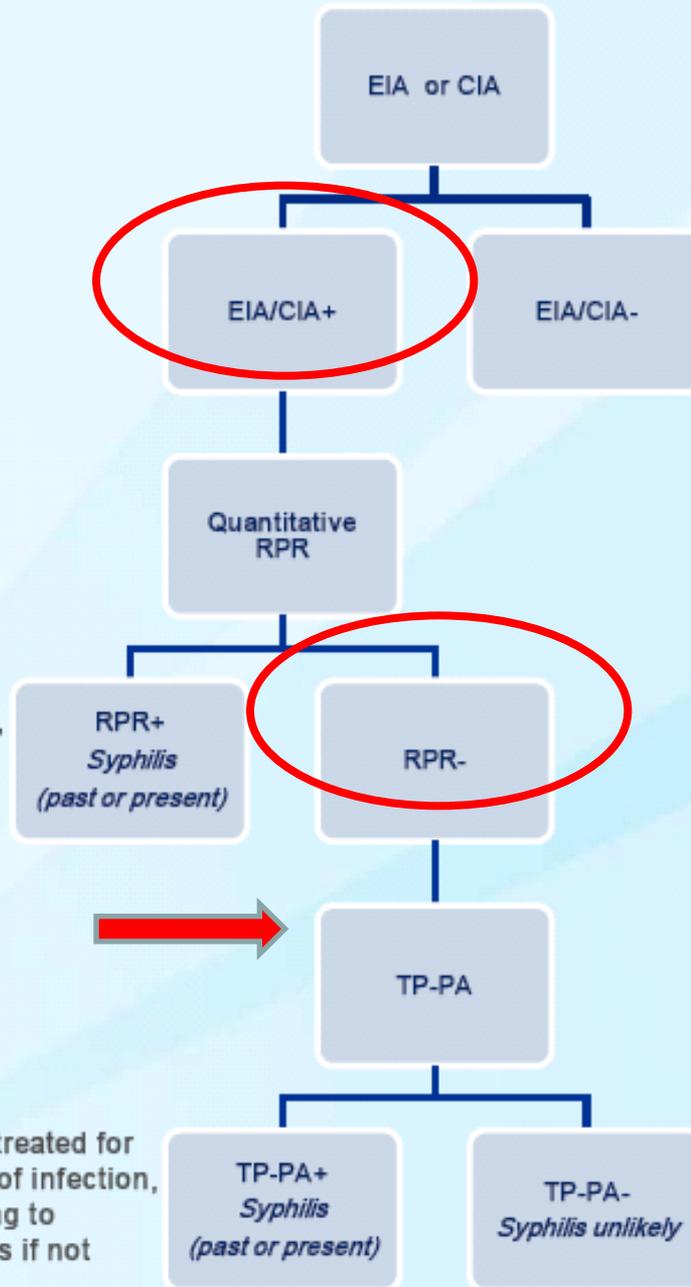


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**180 tests per hour;  
no manual pipetting**

# Recommended algorithm for reverse sequence syphilis screening

Evaluate clinically, determine if treated for syphilis in the past, assess risk of infection, and administer therapy according to CDC's STD Treatment Guidelines if not previously treated



If incubating or primary syphilis is suspected, treat with benzathine penicillin G 2.4 million units IM x 1

Evaluate clinically, determine if treated for syphilis in the past, assess risk of infection, and administer therapy according to CDC's STD Treatment Guidelines if not previously treated

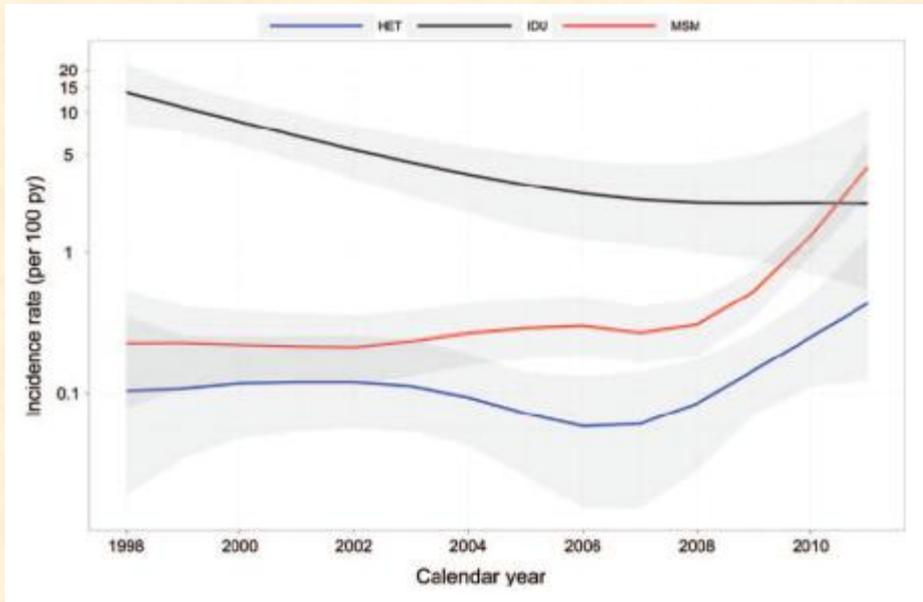
# *Serologic tests for HAV, HBV, and HCV*

- ◆ Test for HCV
- ◆ Test for HAV and HBV, (if determined to be cost-effective before vaccination)
  - A first dose of hepatitis A and hepatitis B vaccine should be administered at the first visit for previously unvaccinated persons
  - Further vaccination can be done depending on testing results

# Hepatitis C Incidence is Increasing in MSM

## ◆ Risks:

- Unprotected receptive anal intercourse; h/o syphilis
- Rough / unlubricated unprotected anal penetration, including fisting



# *HSV-2 Screening in MSM*

- ◆ Ask patient regarding any history of genital herpes
- ◆ Type-specific serologic testing for HSV-2 infection can be considered if herpes infection status is unknown
  - IgG test for HSV 2 antibody test
  - No value in IgM testing

# *HPV Immunization for Men*

- ◆ Recommended for men through 26 years of age
- ◆ Prevents anal intraepithelial neoplasia (AIN) in MSM
- ◆ Prevents genital warts
- ◆ Safe in HIV+
- ◆ Efficacy studies underway in HIV+

# *Anal Cytology Screening Recommendations*

- Routine anal cytology screening is NOT recommended by CDC, USPSTF, ACS, or ISDA
- National Guidelines Clearinghouse has no guidelines for anal cytology screening

# *Treatment of STD in Persons Living with HIV*

- ◆ CDC STD Treatment Guidelines highlight specific regimens for HIV-infected persons when appropriate
  - In general, recommended treatments for HIV-infected and non-infected patients are the same
- ◆ Use available tools (wall charts, pocket cards, reference manuals/atlases)
- ◆ Online resources: *The Practitioner's Handbook for the Management of Sexually Transmitted Diseases*

*Handouts 5 & 6*

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CDC, *STD Treatment Guidelines*, 2010.  
*The Practitioner's Handbook for the Management of STDs.* <http://www.STDhandbook.org>



# **KEY POINTS: ASK**

- ◆ Ask about behaviors that can transmit HIV and other STDs
  - Use open-ended questions to enhance communication
  - Practice to increase comfort level with discussing risk behaviors

# **Key Points:**      **STD Screening**

- ◆ Screen for STD according to guidelines
- ◆ Screen at all exposed anatomic sites (rectum, pharynx, cervix, urethra) unless evidence of low prevalence
  - Contact the lab about availability of test assays



*What is one thing  
you will change in  
your practice...?*

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***ASK***

***SCREEN***

***INTERVENE***

- ***PARTNER SERVICES***
- ***BRIEF BEHAVIORAL INTERVENTIONS***
- ***ADDRESSING MISCONCEPTIONS***
- ***PREVENTION MESSAGES***
- ***STD SCREENING***
- ***RISK SCREENING***