



First Steps:

HIV Diagnostic Testing and the Sexual History

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January 27, 2022

Disclosures and Acknowledgments

- No financial disclosures
- Thanks to Sean Kelly, MD for shared slide resources

Objectives

At the end of this session, participants will be able to

- Describe principles supporting routine testing for HIV infection
- Interpret HIV test results using the current 4th Generation Ag/Ab assay algorithm
- Identify the elements of a sexual history using the GOALS or 5 Ps frameworks

Case for Consideration

- Shane is a 35-year-old man to your clinic for a primary care appointment.
- He has a history of hypothyroidism treated with levothyroxine and depression well controlled with escitalopram.
- He has a long-term female partner, and he recently moved to your region for work.

Case Prompts

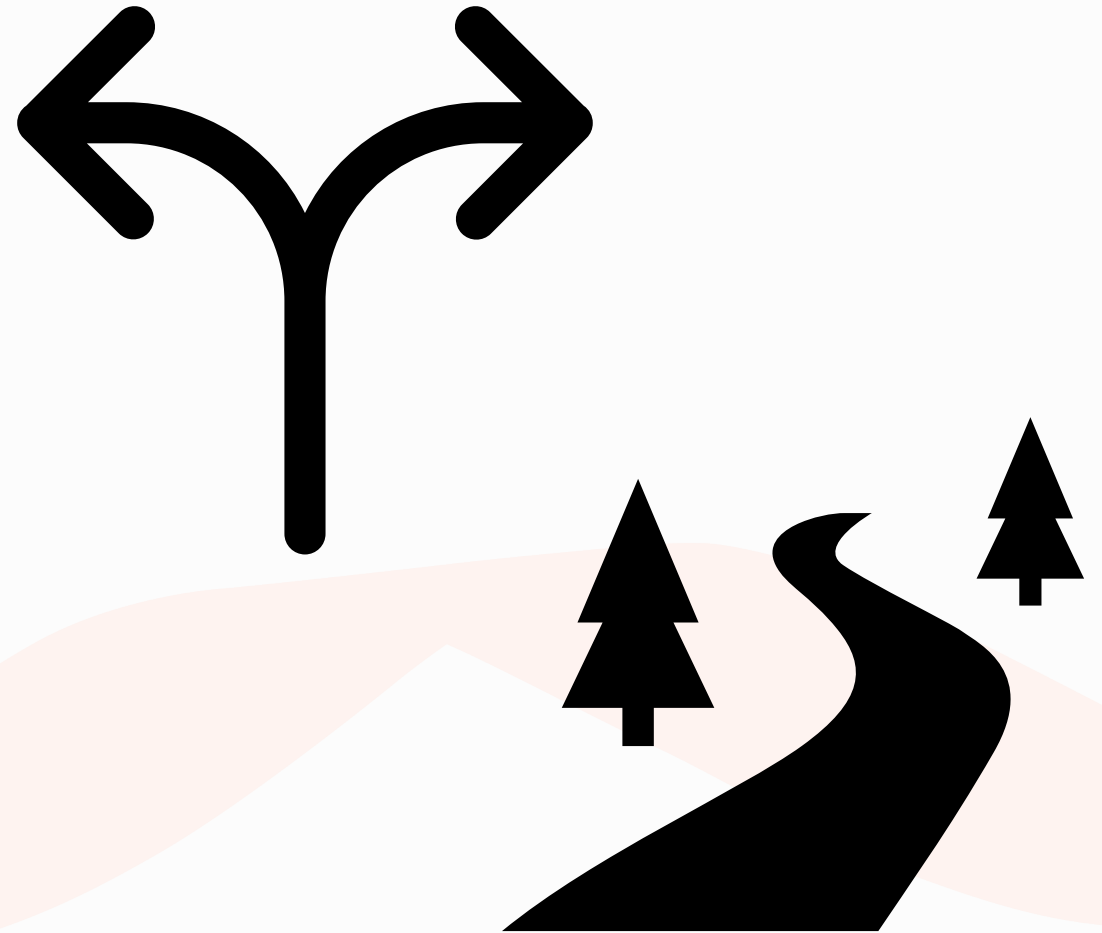
- Should Shane be screened for HIV? If so, why?
- Would you obtain a sexual history from Shane during this initial visit? What questions would you ask Shane to obtain a comprehensive yet sensitive sexual history?

Additional Case Details

- Upon taking a sexual history, Shane is sexually active with a long-term female partner, and he has insertive anal, oral, and vaginal sex. They do not use condoms, and he believes she uses oral contraception.
- He is sexually active with multiple male partners. He estimates 10 partners in the past 6 months. He has had insertive and receptive oral and anal sex. He has had condomless sex with most partners.
- He has chlamydia and syphilis in the past. He was last screened 2 years ago and has no current symptoms.

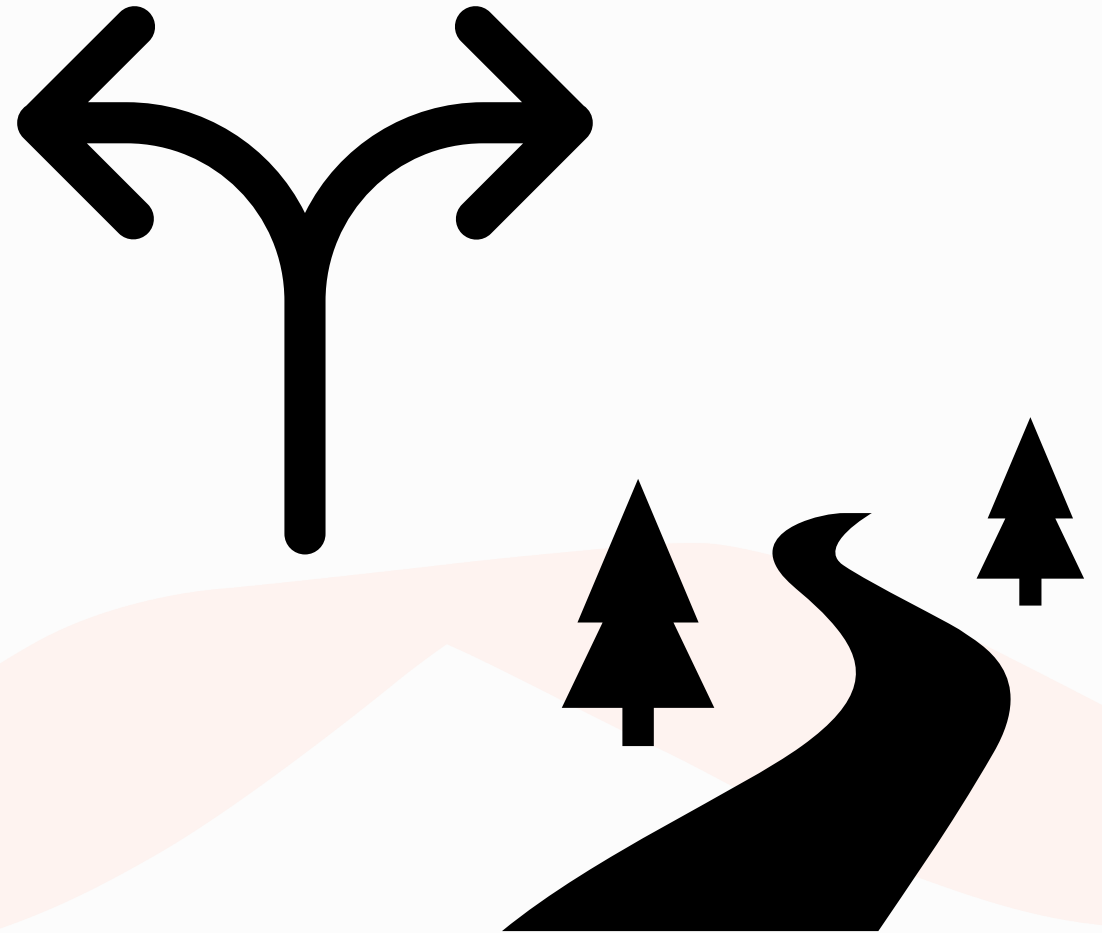
Roadmap

- HIV Diagnostic Testing
- Sexual History

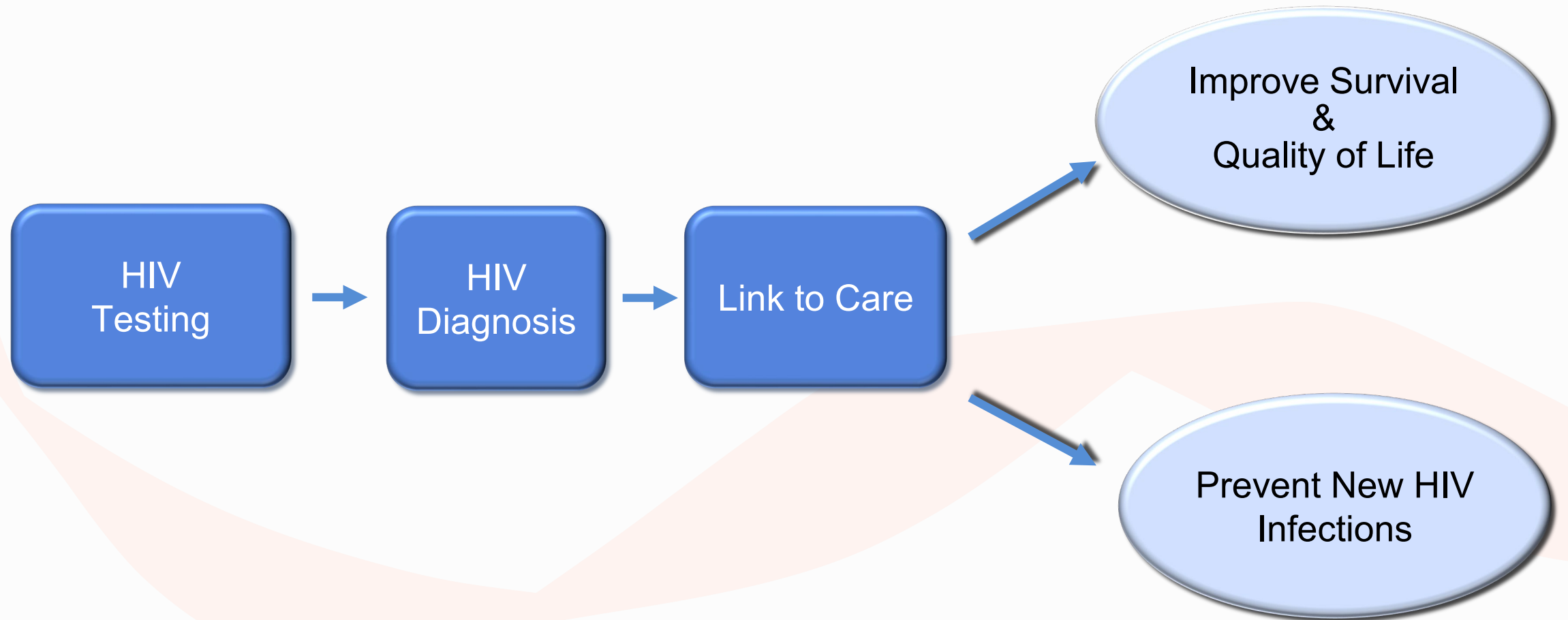


Roadmap

- **HIV Diagnostic Testing**
- **Sexual History**



Goals of HIV Testing



Who Should We Screen?

- Routinely **screen all patients aged 13-64** for HIV infection after notifying them that testing will be performed unless declined
- More frequent screening (e.g., annual, after risk exposure) in:
 - People with multiple partners, or whose partner has multiple partners
 - People who inject drugs, and their partners
 - Partners of people living with HIV
 - People with an STI, viral hepatitis, or TB
 - People who exchange sex for money, commodities, drugs
- Prevention counseling is **not** required with HIV diagnostic testing or as part of HIV screening programs in healthcare settings

Opt-out HIV screening

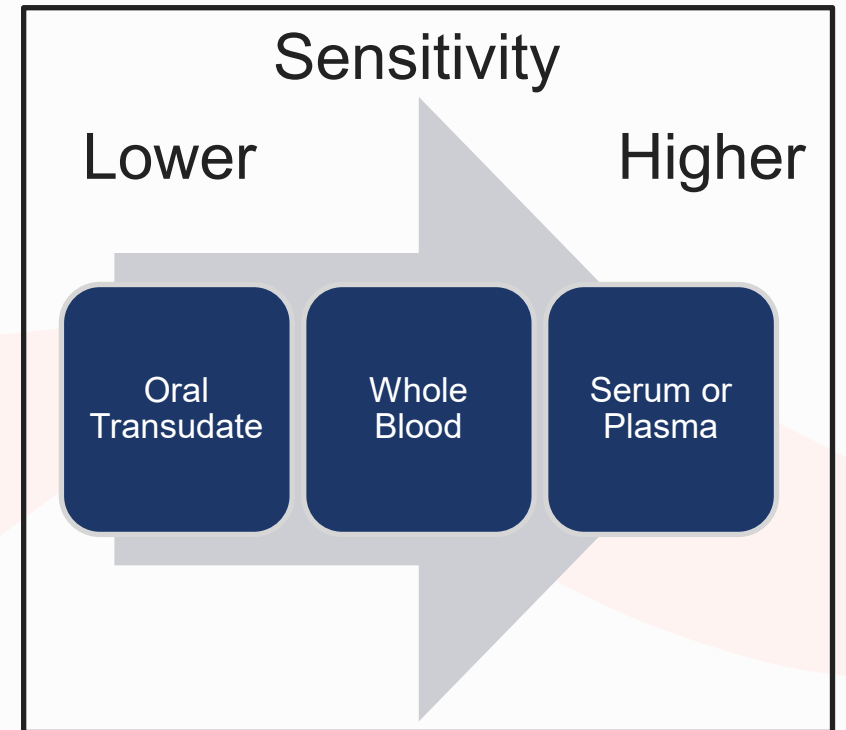
- Patients should be informed that HIV screening will be included as part of their standard evaluations.
- Patients may decline (i.e., opt-out).
- Risk-based screening (vs. opt-out screening) miss HIV diagnoses among those who have a perceived low HIV risk.
- Routine testing allows:
 - Early linkage to care and treatment
 - Stigma reduction
 - Transmission reduction

Benefits of Knowing HIV Status

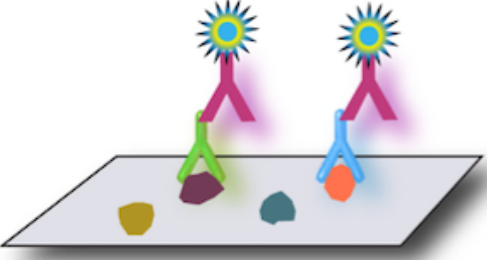

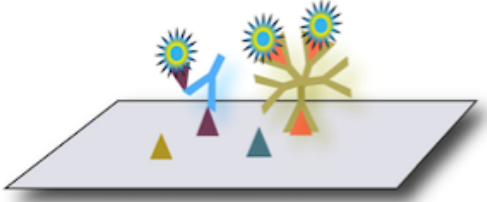
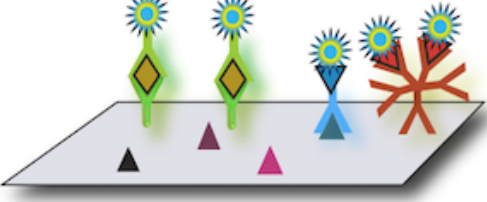
- For HIV-negative
 - Safer sex and injection practices
 - Access to pre-exposure prophylaxis (PrEP)
- For HIV-positive
 - Safer sex and injection practices
 - Antiretroviral use for individual patient health
 - Treatment as prevention (i.e., U=U)
 - Prophylaxis to prevent opportunistic infections, if indicated

Options for HIV Testing

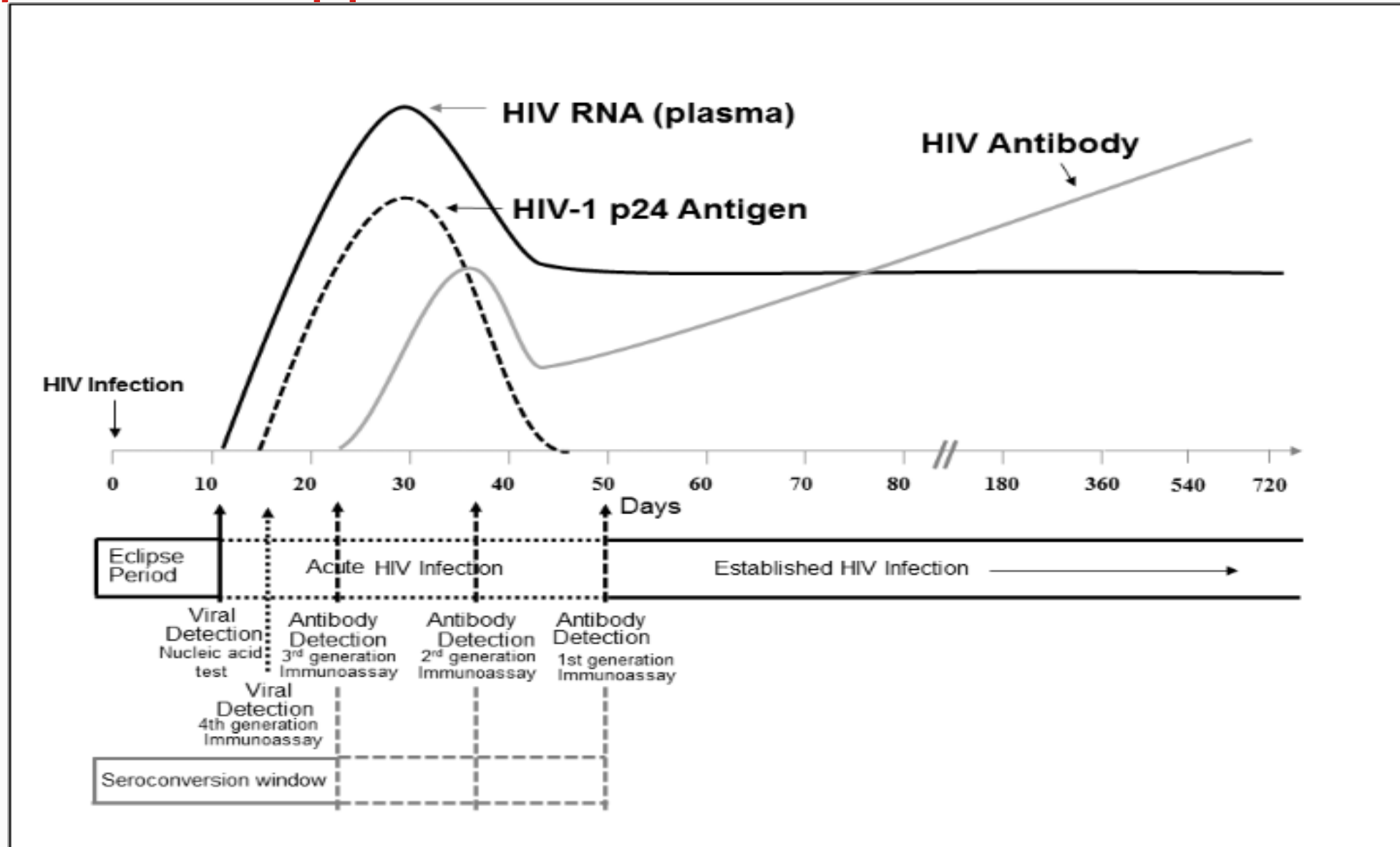
- **HIV Antigen/Antibody Test (4th generation testing)**
 - *Can detect acute HIV infection*
- HIV Antibody Test (3rd generation)
- Rapid HIV Test
 - Blood or saliva
 - Requires confirmation
- HIV viral load
 - *Can detect acute HIV infection*



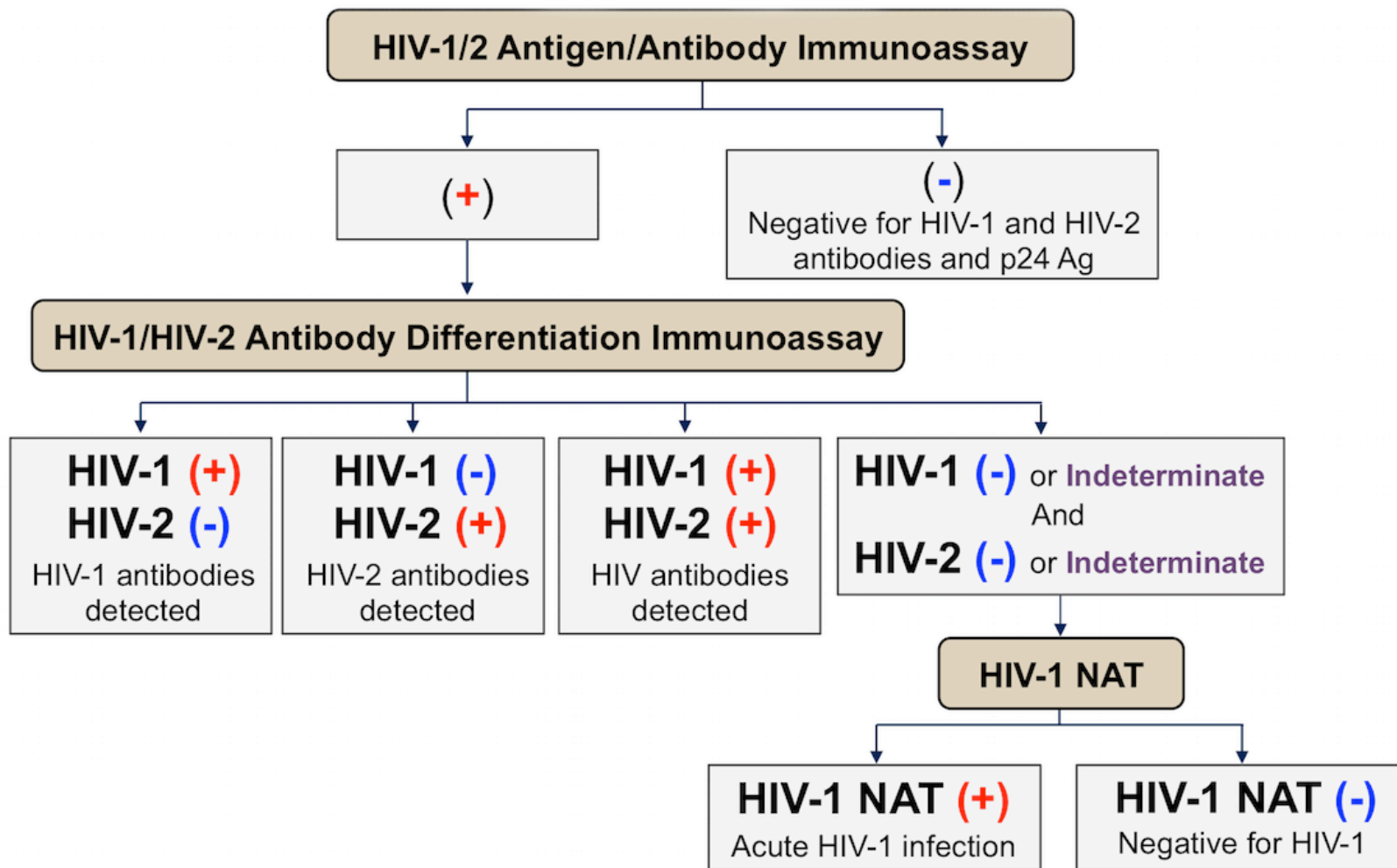
Evolution of HIV Assays

IgG-Sensitive		IgM-Sensitive	Antigen-Antibody
First Generation	Second Generation	Third Generation	Fourth Generation
			
Uses crude viral lysate Detects IgG antibodies	Uses recombinant HIV antigens or peptides Detects IgG antibodies	Uses "Sandwich" EIA Detects IgM and IgG antibodies	Detects HIV IgG and IgM antibodies and p24 antigen

Sequence of Appearance of Lab Markers of HIV-1 Infection



CDC HIV Diagnostic Algorithm



What happens if a test is positive?

- Positive rapid tests require confirmation with 4th generation testing algorithm.
- Results should be confidentially and directly, ideally in person.
- Provide counseling
 - HIV is a manageable condition that can be effectively treated.
 - Patient should inform current and prior partners.
 - Discuss HIV risk reduction practices
 - Discuss ways and resources to process diagnosis
 - Link patient to care

What if a test is negative?

- Reinforce safer sex and needle sharing practices.
- Recommend additional and/or repeat testing as indicated.
- Consider HIV pre-exposure prophylaxis (PrEP).

Diagnostic Case 1

- Phil is a 29-year-old man who is in a long-term relationship with Aaron.
- They recently returned from a Caribbean cruise where they both had multiple anonymous sex partners.
- They did not use condoms consistently.

Diagnostic Case 1 Cont.

- Phil presents a week after his return home with a diffuse papular, erythematous rash.
- Other symptoms include fever, diarrhea, and right upper quadrant abdominal discomfort.
- Labs reveal new thrombocytopenia (i.e., platelet count 101) and moderately elevated LFTs (i.e., AST 150, ALT 250, upper limit of normal 45)
- Syphilis and tri-compartment gonorrhea/chlamydia screens are obtained.

Diagnostic Case 1 Testing

- HIV Testing
 - HIV Ag/Ab screen **positive**
 - HIV antibody differentiation assay **negative**
- What is the next step?

Diagnostic Case 1 Testing Results

- HIV Testing
 - HIV Ag/Ab screen **positive**
 - HIV antibody differentiation assay **negative**
- What is the next step?
 - HIV RNA **4,024,146 copies/mL**

Diagnostic Case 2

- Alexandra is a 32-year-old woman who presents to labor and delivery with rupture of membranes at 37 weeks of gestation.
- She has not had prenatal care.
- What should be done about HIV testing?

Diagnostic Case 2 Cont.

- HIV Test results
 - HIV Ag/Ab screen **positive**
 - HIV antibody differentiation assay **negative**
 - HIV RNA **negative**
- What does this mean? What do you do next?

Diagnostic Case 2 Resolution

- Consider ALL possibilities
 - False-positive HIV screen?
 - Very early infection?
 - HIV-2?
 - It's possible this could be a very early HIV-2 infection, in which case the antibody is not present, and HIV RNA PCR does not detect HIV-2
- Approach
 - Gather more history
 - Repeat testing (or additional testing) may be indicated
 - Talk to laboratory personnel
 - Obtain expert input for support

HIV Testing Summary

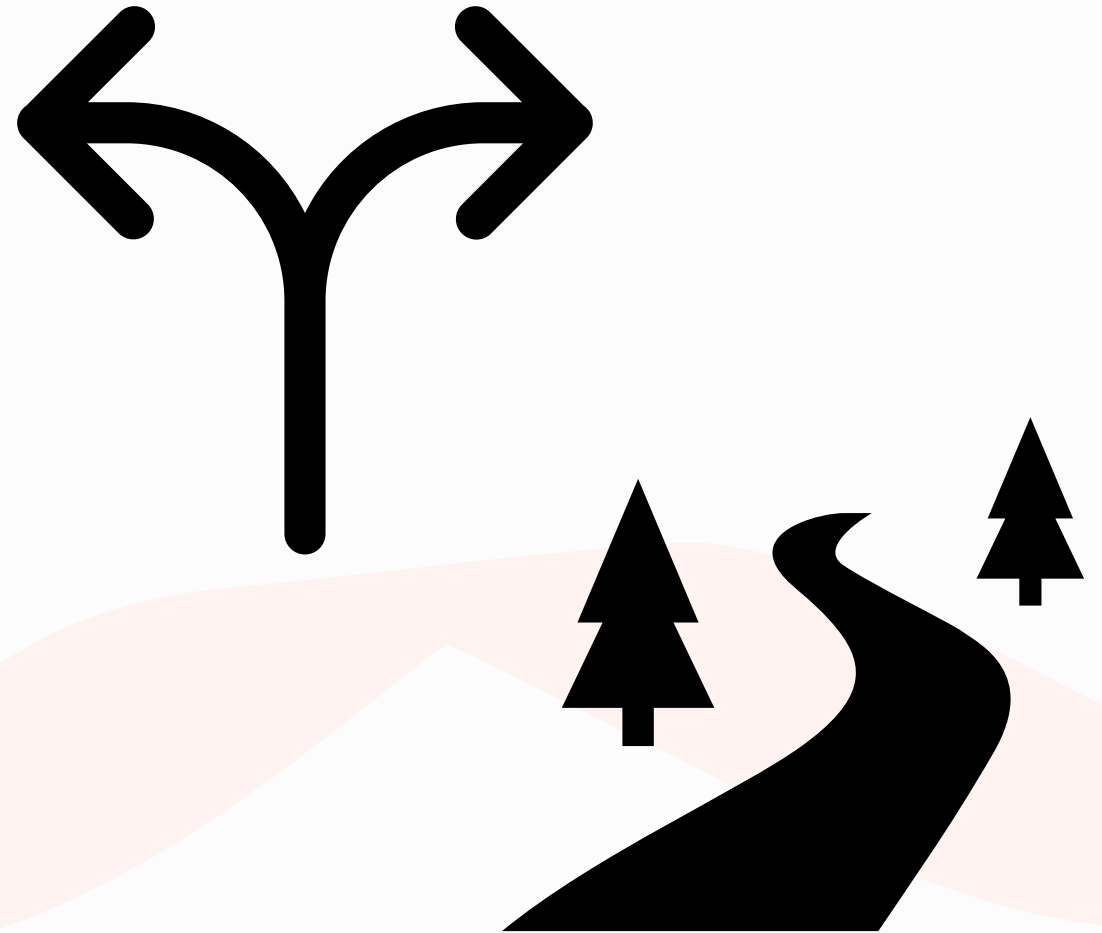
- HIV testing should be recommended to all patients aged 13-64 at least once regardless of risk.
- Some patients require more frequent screening based on risks or comorbid conditions.
- Be aware of symptoms and signs that suggest acute HIV infection.
- Remember approaches to HIV diagnostic testing.



Questions?

Roadmap

- HIV Diagnostic Testing
- **Sexual History**



The Sexual History

- Patients have sex in lots of different ways.
- Patients may not want to discuss this.
- Providers may not feel comfortable discussing this.

Taking a sexual history is a potentially life-saving intervention.

- Recognize this is our responsibility as medical providers
- Know that it gets easier with practice

Sexual History Goals

- To learn about the patient's sexual health
 - This is more than just assessing HIV/STI risk
- To help the patient achieve the goals for their sexual health
 - Emphasizes benefits over risk, which can be more effective in motivating patients to modify behavior

Sexual History Misconceptions

- Married persons do not acquire STIs.
- Persons who identify as “straight” only have sex with those of the opposite gender.
- Persons who identify as “gay” or “lesbian” only have sex with those of the same gender.
- Persons with an STI will have symptoms.

General Approach To Taking a Sexual History

- Be respectful, professional, and non-judgmental.
- Appropriate verbal and non-verbal communication.
- Use open-ended and specific questions.
- Use appropriate but specific language.
- Be aware and ask regarding gender identity and orientation.

Two Frameworks for the Sexual History

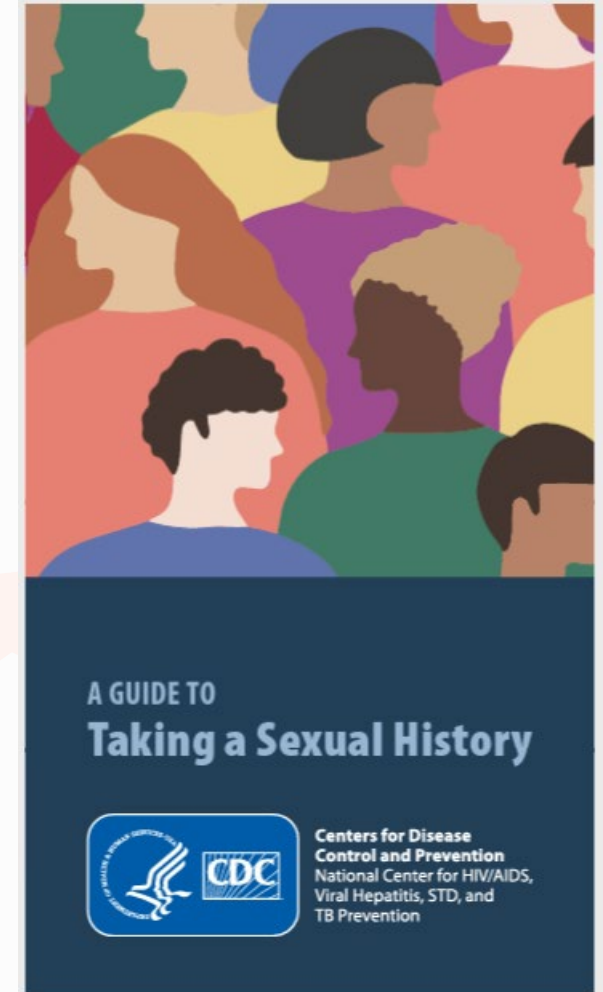
- 5 “P”s (Partners, Practices, Protection from STIs, Past history of STIs, Pregnancy intention)

VS

- Give a preamble/preface
- Offer opt-out HIV and STI testing
- Ask open-ended questions
- Listen for relevant information, and ask more pointed questions to fill in the blanks
- Suggest a course of action, highlighting benefits
 - Such as HIV and STI testing, PrEP, contraception counseling
 - Benefits include exerting greater control of their sexual health, decreasing anxiety about potential STI/HIV transmission

The 5 “P”s of Sexual Health

- Partners
- Practices
- Protection from STIs
- Past History of STIs
- Pregnancy Intention



Partners

- Number and gender of partner(s)
- Length of relationship
- Partner's risk factors
- *“Are you currently sexually active?”*
- *“How many partners have you had in the last 30 days, 3 months, past year?”*
- *“Do you have sex with men, women, or both?”*

Practices

- Sexual practices will assist in determining the assessment of patient's risks and help identify:
 - Risk-reduction strategies
 - Immunizations
 - Appropriate anatomical sites for STI testing
- *"I am going to be more specific about the kind of sex you've had over the last 12 months to better understand if you are at risk for sexually transmitted infections."*
- *"What kind of sexual contact do you have or have you had?"*
 - *"Have you had vaginal sex, meaning the penis in the vagina?"*
 - *"Have you had oral sex, meaning the mouth on the penis or vagina?"*
 - *"Have you had anal sex, meaning the penis in the anus?"*
- *"Are you a top, bottom, or vers?"*
 - Top = anal insertive
 - Bottom = anal receptive
 - Vers/versatile = both insertive and receptive

Protection from STIs

- Based on prior discussion, explore options for protection from STIs, such as:
 - Need for STI testing
 - Patient's perception of self-risk
 - Barrier protection (i.e., condoms)
 - Benefit of immunizations (i.e., hepatitis A, hepatitis B, and/or HPV)
- *“Do you and your partner(s) use any protection against sexually transmitted infections?”*
 - If not... *“Why do you not use protection?”*
 - If so... *“What kind of protection do you use?”*
- *“How often do you use this protection?”*
 - If sometimes... *“In what situations or with whom do you use protection?”*

Past History of STIs

- Discuss and document history of prior STIs
 - Prior STIs increase risk of future STIs
- *“Have you ever been diagnosed with a sexually transmitted infection? When? How were you treated?”*
- *“Have you ever been tested for HIV or other sexually transmitted infections?”*
- *“Has your current partner or any former partners ever been diagnosed or treated for a sexually transmitted infection?”*
 - If so... *“Were you tested for the same infection?”*
 - If yes and positive... *“Were you treated?”*

Pregnancy Intention

- Identify pregnancy intention
- Ask about contraceptive use and compliance
- Provide contraceptive education
- Identify unmet contraceptive use (including emergency contraception)
- Ask men about contraception and provide information (i.e., male methods of contraception)
- *“Are you currently trying to conceive / father a child?”*
- *“Are you concerned about getting pregnant or getting your partner pregnant?”*
- *“Are you using contraception or practicing any form of birth control? Do you need any information on birth control?”*

The GOALS Framework

- Considers the principle that sexual history-taking is an INTERVENTION that will:
 - Increase rates of routine HIV and STI screening
 - Increase rates of universal biomedical prevention and contraceptive education
 - Increase patients' motivation for and commitment to sexual health behavior
 - Enhance the patient-care provider relationship, making it a lever for sexual health specifically and overall health and wellness in general

GOALS

- Give a preamble/preface
- Offer opt-out HIV and STI testing
- Ask open-ended questions
- Listen for relevant information, and ask more pointed questions to fill in the blanks
- Suggest a course of action, highlighting benefits
 - E.g., HIV and STI testing, PrEP, contraception counseling
 - Benefits include exerting greater control of their sexual health, decreasing anxiety about potential STI/HIV transmission

Preamble/Preface Example

- *“I talk to all of my patients about sexual health, because it’s such an **important part of overall health**. Some of my patients have **questions or concerns** about their sexual health, so I want to make sure I **understand what your questions or concerns might be and provide whatever information or other help you might need.**”*

Other Things to Think About When Taking a Sexual History

- Safety (e.g., domestic violence)
- Trading sex for money, drugs, or shelter
- Travel

Sexual History Scripting

- “Tell me about your sex life.”
- “About how many partners have you had in the past 6 months?”
- “Tell me about your sexual partners.”
- “What gender are your partners?”
- “Are you a top, bottom, or vers?”
 - Top = anal insertive
 - Bottom = anal receptive
 - Vers/versatile = both insertive and receptive

Sexual History Scripting Part 2

- “What do you do to prevent STDs?”
- “How do you prevent pregnancy?”
- “Do you use condoms? What percentage of the time would you say you use condoms?”

Sexual History Scripting Part 3

- “Are any of your partners HIV-positive?”
 - If so, “do you know if they’re undetectable?”
- “Have any of your partners recently had an STD?”
- “Have you ever had an STD?”
- “Have you ever had HIV or STD testing?”

Sexual History Scripting Part 4

- “Do you ever use drugs, like poppers or meth, when you have sex?”
- “Do any of your partners make you scared or feel unsafe?”
- “Do you ever have to use sex to get things you need, like money to get food or to pay bills?”

Summary Part 2

- The sexual history is a critical part of delivering comprehensive primary care.
- Frame the sexual history in terms of benefits for the patient over risk factors.
- Include opportunities for opt-out HIV and STI screening in the sexual history.
- The 5 Ps and GOALS frameworks can provide useful guides.

THANK YOU!

QUESTIONS?

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