

Identifying Candidates for HIV PrEP

This is a PDF version of the following document:

Module 1: HIV PrEP Fundamentals

Lesson 2: <u>Identifying Candidates for HIV PrEP</u>

You can always find the most up-to-date version of this document at https://www.hivprep.uw.edu/go/hiv-prep-fundamentals/identifying-candidates-hiv-prep/core-concept/all.

Background

The potential use of HIV PrEP should be discussed with all adolescents and adults who are sexually active or who inject any non-prescribed substance. Even if the individual does not have an indication or interest in HIV PrEP, the information discussion may be valuable for the individual and possibly for others with whom they may share this information, including their sex partners, friends, persons in their social networks, and family members. Evaluations of persons for HIV PrEP should be conducted using a nonjudgmental approach. Meeting specific screening criteria should not be considered a prerequisite for receiving HIV PrEP.[1] Some screening tools, however, may help clinicians, especially those with less experience in providing HIV PrEP, in identifying persons who may clearly benefit from receiving HIV PrEP.[2]



Epidemiology of Recent HIV Infections in the United States

Estimated HIV Incidence (New HIV Infections)

To better understand who might benefit from HIV PrEP in the United States, it is important to examine HIV epidemiology data reported by the Centers for Disease Control and Prevention (CDC) related to recent HIV infections in the United States. Data from the CDC on new HIV infections, which is often referred to as HIV incidence, reflects an estimate of the number of new HIV infections that occurred during a 1-year period.[3] It is impossible to report the true number of new HIV infections in a year, since not everyone who acquires HIV will get tested in that same calendar year. Nevertheless, the CDC uses very sophisticated techniques to make reasonable estimates of the number of new HIV infections that occur in a year.[3] The epidemiology *Image Series* shown below summarizes key trends in the estimated new HIV infections (HIV incidence) in the United States for the year 2021 (Figure 1).[3][Q] New HIV Infections by Sex

National Goals for New Infections in the United States

During recent years in the United States, the estimated number of new HIV infections has remained relatively stable at approximately 32,000-36,000 per year, with a trend of a slight decline in recent years.[3] The Ending the HIV Epidemic initiative, which was issued in 2019, has a stated goal to reduce the number of new HIV infections in the United States to 10,000 per year by the year 2025 and to 3,000 per year by the year 2030.[4] The following *Image Series* summarizes the trends in the estimated new HIV infections (HIV incidence) for the years 2017-2021, compared with national 2025 and 2030 goals for new HIV infections (Figure 2).[3,4][Q] National Goal for New HIV Infections



Assessing HIV PrEP Indications in Sexually Active Persons

HIV Risk Acquisition in Sexually Active Persons

In the United States, sexual acquisition of HIV accounts for approximately 90% of new cases of HIV.[3] Therefore, it is extremely important to evaluate the risk of sexual acquisition of HIV in persons who are sexually active and discuss the use of HIV PrEP, if indicated. Several groups and factors may be associated with increased risk of acquiring HIV sexually, including:

- Sex partner who has HIV and a detectable plasma HIV RNA level that is greater than 200 copies/mL
- Multiple sex partners
- History of a bacterial sexually transmitted infection in the prior 6 months
- Presence of genital ulcer disease, such as herpes simplex or syphilis
- History of inconsistent or no condom use with sex partners
- Exchange of sex for money, goods, or other needs (i.e., transactional sex)

CDC Recommendations for HIV PrEP Assessment in Sexually Active Persons

The 2021 CDC Clinical Practice Guideline recommends offering HIV PrEP to all sexually active persons who have a substantial risk of HIV acquisition.[2] Routinely obtaining a sexual history is an important part of the assessment of HIV risk acquisition. More detailed information on obtaining a sexual history is provided later in this lesson. The CDC HIV PrEP guidance outlines key questions when assessing whether someone may be a candidate for HIV PrEP. The figure below outlines this CDC algorithm when assessing indications for HIV PrEP in sexually active persons, with a recommendation to prescribe HIV PrEP if a response in any of the decision trees ends with the recommendation to *Prescribe HIV PrEP* (Figure 3).[2]



Assessing Indications for HIV PrEP in People Who Inject Drugs

HIV Risk Acquisition in People Who Inject Drugs

People who inject drugs (PWID) not prescribed to them are at increased risk of acquiring HIV and have been at the center of several recent HIV outbreaks.[5] In the United States, PWID account for an estimated 7 to 10% of new infections annually.[3,6,7] People who inject drugs may have multiple factors that place them at risk of acquiring HIV, including:

- Receptive syringe sharing
- Sharing of injection works
- Receipt of syringes and injection supplies from nonsterile sources
- Multiple sex partners
- · Condomless sex
- Exchange of sex for money, goods, or other needs (i.e., transactional sex)

In the 2018 cycle of the National HIV Behavioral Surveillance (NHBS) survey, activities associated with HIV acquisition were frequently reported in the prior 12 months among PWID without HIV, including receptive syringe sharing reported by 33% and receptive sharing of other injection equipment reported by 55%.[8] In this same cohort, 75% of female PWID reported condomless penile-vaginal sex, and 27% reported condomless anal sex in the prior 12 months. Among men, 69% reported condomless penile-vaginal sex, 26% reported condomless anal sex with a female partner, and 4% reported condomless anal sex with a male partner in the prior 12 months.[8] Owing to the frequency of both injection and sexual risk factors for HIV among PWID, all PWID should be assessed for HIV PrEP eligibility; this assessment includes asking about recent injection drug use, sharing of any injection equipment, and sexual practices that confer an increased risk for HIV.[2]

CDC Recommendations for HIV PrEP Assessment in PWID

The 2021 CDC HIV PrEP Clinical Practice Guideline recommends prescribing HIV PrEP for any person who injects drugs who does not have HIV and meets any of the following criteria:[2]

- In the past 6 months, injected non-prescribed drugs *AND* shared injection or drug preparation equipment, *or*
- Has a risk of sexual acquisition of HIV, or
- Requests to receive HIV PrEP. Note: The rationale for this recommendation is that some individuals may be reluctant to share highly personal information on drug use and sexual practices that place them at increased risk for HIV.

The following figure displays key questions to ask when assessing indications for HIV PrEP in PWID and provides a response-based algorithm for recommending HIV PrEP (Figure 4).[2][Q] PrEP for PWID



Obtaining a Sexual History

Approach to Taking a Sexual History

In the United States, an estimated 85-90% of new cases of HIV acquisition occur through sexual transmission. Therefore, an initial screening for sexual risk of HIV acquisition should ideally begin with a brief sexual history. Obtaining a sexual history can provide valuable general health information, potentially indicate an indication for HIV PrEP, and serve as a nice transition into discussing an assessment for HIV PrEP. A discussion regarding sexual history should use open-ended questions, and the clinician should always be respectful, nonjudgmental, and avoid biased responses. In addition, when taking a sexual history with transgender and gender diverse individuals, it may be preferable to use non-gendered language, such as the term& genitals instead of penis or vagina. This sexual history dialogue should be considered a dynamic process that involves ongoing discussion between the health care provider and the patient. As outlined below and in more detail in the CDC's A Guide to Taking a Sexual History, there are five recommended core components of taking a sexual history; these elements are referred to as the five Ps (5Ps): Partners, Practices, Protection for STIs, Past History of STIs, and Pregnancy Intention (Figure 6).[9] Some components of the five Ps may directly inform a person's HIV PrEP candidacy, whereas others focus more broadly on a general sexual and reproductive health assessment.

Partners

- Are you currently having sex of any kind—if so, oral, vaginal, or anal—with anyone?
- If no, have you ever had sex of any kind with another person?
- In recent months, how many sex partners have you had?
- What is/are the gender(s) of your sex partner(s)?
- Do you or your partner(s) currently have other sex partners?

Practices

- To understand your risks for STIs, I need to understand the kind of sex you have had recently.
- Have you had vaginal sex, meaning 'penis in vagina sex'? If yes, do you use condoms: never, sometimes, or always?
- Have you had anal sex, meaning 'penis in rectum/anus sex'? If yes, do you use condoms: never, sometimes, or always?
- Have you had oral sex, meaning 'mouth on penis/vagina'? If yes, do you use some form of prevention like a female condom or dental dam: never, sometimes, or always?
- For condom and dental dam answers:
 - $\circ\,$ If never: Can you tell me why you choose not to use condoms or other prevention tools?
 - If sometimes: In what situations (or with whom) do you use condoms or other prevention tools?

Protection from STIs

- Do you and your partner(s) discuss STI prevention?
- If you use prevention tools, what methods do you use? (For example, external or internal condoms—also known as male or female condoms—dental dams, etc.)



- How often do you use this/these method(s)? More prompting could include specifics about:
 - Frequency: sometimes, almost all the time, all the time
 - Times they do not use a method
- If sometimes, in which situations, or with whom, do you use each method?
- Have you received HPV, hepatitis A, and/or hepatitis B shots?
- Are you aware of HIV PrEP, a medicine that can prevent HIV?
 - Have you ever used it or considered using it?

Past History of STIs

- Have you ever been tested for STIs and HIV?
 - Would you like to be tested?
- Have you been diagnosed with an STI in the past?
 - When?
 - Did you get treatment?
- Have you had any symptoms that keep coming back?
- Has your current partner or any former partners ever been diagnosed or treated for an STI?
 - Were you tested for the same STI(s)?
 - Do you know your partner(s) HIV status?

Pregnancy Intention

- Do you think you would like to have (more) children at some point?
- If yes, when do you think that might be?
- How important is it to you to prevent pregnancy (until then)?
- Are you or your partner using contraception or practicing any form of birth control?
 - Would you like to talk about ways to prevent pregnancy?
 - Do you need any information on birth control?

An Expanded Approach to Taking a Sexual History

In addition to the 5Ps, some sexual health experts now recommend a new approach to taking a sexual history that includes a sixth P; this sixth P represents "Plus," and it addresses *Pride*, *Problems*, and *Pleasure*. The *National Coalition for Sexual Health* has generated extensive resources on taking a sexual history, including recent materials that incorporate information on the sixth P ("Plus"). The following list highlights several of these excellent resources:

• Sexual Health Questions to ask all Patients (web page with option to download PDF)



- Sexual Health and Your Patients: A Providers Guide (web page with option to download PDF)
- A New Approach to Sexual History Taking (web page with video series)

As an introduction to the video series listed above, watch the National Coalition for Sexual Health's video on *The 6 Ps: A New Approach to Sexual History Taking* (3 minutes).



HIV PrEP Tools for Clinicians: Assessment

The National HIV PrEP Curriculum team has created **HIV PrEP Tools for Clinicians** based on 2021 CDC HIV PrEP Guidelines.[2] These tools include a component on **Assessment for HIV PrEP** that provides step-by-step HIV PrEP screening for sexually active persons and persons who inject drugs. These tools also provide a guide for determining appropriate medication options for HIV PrEP and a guide for monitoring of laboratory test. It is important to note these HIV PrEP tools are intended to help guide and educate clinicians, but all final decisions regarding indications for HIV PrEP, medication choices, and laboratory test monitoring should be based on the clinician's judgment (<u>Figure 5</u>). Access these tools by clicking <u>TOOLS</u> on the top navigation bar; once on the Tools page you can use any of the tools directly on the website and by installing it on your mobile device.



Summary Points

- The estimated number of new HIV infections in the United States in recent years was approximately 32,000 per year, and the Ending the HIV Epidemic initiative has a stated goal to reduce this number to 3,000 by the year 2030.
- Overall, in the United States, sexual acquisition of HIV accounts for approximately 90% of new cases of HIV. Persons who inject drugs account for an estimated 10% of new annual HIV infections.
- Approximately two-thirds of new HIV infections in 2021 involved men who have sex with men, and one-fifth involved heterosexual transmission of HIV.
- Among sexually active persons, factors associated with an increased risk for HIV acquisition include multiple sex partners, a history of STIs, condomless sex, and exchanging sex for money or drugs.
- Among PWID, sharing needles, syringes, and other injection equipment is the most important risk factor for increased risk of HIV acquisition.
- The 2021 CDC Clinical Practice Guideline recommends offering HIV PrEP to all sexually active persons and persons who inject drugs who have a substantial risk of HIV acquisition, with the caveat the person does not already have HIV.
- To better determine whether a person has a substantial risk of acquiring HIV, the CDC HIV PrEP guidelines provide an algorithm-based screening tool. It is important to note that meeting specific screening criteria should not be considered a prerequisite for receiving HIV PrEP, but the use of a screening tool can provide valuable information to help guide clinicians when assessing indications for HIV PrEP.
- Obtaining a thorough sexual history is an important part of assessing HIV risk acquisition as it provides valuable general health information, can potentially identify an indication for HIV PrEP, and segue into a discussion regarding HIV PrEP assessment and eligibility.
- Discussions regarding sexual history should use open-ended questions, and the clinician should always be respectful, nonjudgmental, and provide unbiased responses.
- There are five recommended core components of taking a sexual history, which are referred to as the five Ps: Partners, Practices, Protection for STIs, Past History of STIs, and Pregnancy Intention; some sexual health experts now recommend a sixth P, representing "Plus" that addresses Pride, Problems, and Pleasure.



Citations

1. Gandhi RT, Bedimo R, Hoy JF, et al. Antiretroviral Drugs for Treatment and Prevention of HIV Infection in Adults: 2022 Recommendations of the International Antiviral Society-USA Panel. JAMA. 2023:329:63-84.

[PubMed Abstract] -

2. Centers for Disease Control and Prevention: US Public Health Service: Preexposure prophylaxis for the prevention of HIV infection in the United States—2021 Update: a clinical practice guideline. December 2021:1-108.

[CDC] -

- Centers for Disease Control and Prevention. Estimated HIV Incidence and Prevalence in the United States, 2017–2021. HIV Surveillance Supplemental Report. 2023;28(3). Published May 2023.
 [CDC] -
- 4. Fauci AS, Redfield RR, Sigounas G, Weahkee MD, Giroir BP. Ending the HIV Epidemic: A Plan for the United States. JAMA. 2019;321:844-845.

 [PubMed Abstract] -
- Lyss SB, Buchacz K, McClung RP, Asher A, Oster AM. Responding to Outbreaks of Human Immunodeficiency Virus Among Persons Who Inject Drugs-United States, 2016-2019: Perspectives on Recent Experience and Lessons Learned. J Infect Dis. 2020;222:S239-S249.
 [PubMed Abstract] -
- Biello KB, Bazzi AR, Mimiaga MJ, et al. Perspectives on HIV pre-exposure prophylaxis (PrEP) utilization and related intervention needs among people who inject drugs. Harm Reduct J. 2018;15:55.
 [PubMed Abstract] -
- 7. Burnett JC, Broz D, Spiller MW, Wejnert C, Paz-Bailey G. HIV Infection and HIV-Associated Behaviors Among Persons Who Inject Drugs 20 Cities, United States, 2015. MMWR Morb Mortal Wkly Rep. 2018;67:23-8.

 [PubMed Abstract] -

[rubMed Abstract] -

- Centers for Disease Control and Prevention. HIV Infection, Risk, Prevention, and Testing Behaviors among Persons Who Inject Drugs National HIV Behavioral Surveillance: Injection Drug Use, 23 U.S. Cities, 2018. HIV Surveillance Special Report 24:1-43. Revised edition: Published February 2020.
 [CDC] -
- Reno H, Park I, Workowski KA, Aliza Machefsky AM, Bachmann LH. Guide to Taking a Sexual History. Centers for Disease Control and Prevention, CS324772-A; CDC Publication 30-0166.
 [CDC] -

References

- Calabrese SK, Krakower DS, Mayer KH. Integrating HIV Preexposure Prophylaxis (PrEP) Into Routine Preventive Health Care to Avoid Exacerbating Disparities. Am J Public Health. 2017;107:1883-9.
 [PubMed Abstract] -
- Centers for Disease Control and Prevention: US Public Health Service: Preexposure prophylaxis for the prevention of HIV infection in the United States—2021 Update: clinical providers' supplement. December 2021:1-53.
 [CDC] -



- Lama JR, Mayer KH, Perez-Brumer AG, et al. Integration of Gender-Affirming Primary Care and Peer Navigation With HIV Prevention and Treatment Services to Improve the Health of Transgender Women: Protocol for a Prospective Longitudinal Cohort Study. JMIR Res Protoc. 2019;8:e14091.
 [PubMed Abstract] -
- Lansky A, Finlayson T, Johnson C, et al. Estimating the number of persons who inject drugs in the united states by meta-analysis to calculate national rates of HIV and hepatitis C virus infections. PLoS One. 2014;9:e97596.

[PubMed Abstract] -

• Mayer KH, Chan PA, R Patel R, Flash CA, Krakower DS. Evolving Models and Ongoing Challenges for HIV Preexposure Prophylaxis Implementation in the United States. J Acquir Immune Defic Syndr. 2018;77:119-27.

[PubMed Abstract] -

 Pathela P, Jamison K, Blank S, Daskalakis D, Hedberg T, Borges C. The HIV Pre-exposure Prophylaxis (PrEP) Cascade at NYC Sexual Health Clinics: Navigation Is the Key to Uptake. J Acquir Immune Defic Syndr. 2020;83:357-64.

[PubMed Abstract] -

• Shover CL, Javanbakht M, Shoptaw S, et al. HIV Preexposure Prophylaxis Initiation at a Large Community Clinic: Differences Between Eligibility, Awareness, and Uptake. Am J Public Health. 2018;108:1408-17.

[PubMed Abstract] -

- Smith DK, Mendoza MC, Stryker JE, Rose CE. PrEP Awareness and Attitudes in a National Survey of Primary Care Clinicians in the United States, 2009-2015. PLoS One. 2016;11:e0156592.
 [PubMed Abstract] -
- Srikanth K, Killelea A, Strumpf A, Corbin-Gutierrez E, Horn T, McManus KA. Associated Costs Are a Barrier to HIV Preexposure Prophylaxis Access in the United States. Am J Public Health. 2022;112:834-8.

[PubMed Abstract] -

• Zhang C, McMahon J, Fiscella K, et al. HIV Pre-Exposure Prophylaxis Implementation Cascade Among Health Care Professionals in the United States: Implications from a Systematic Review and Meta-Analysis. AIDS Patient Care STDS. 2019;33:507-27.

[PubMed Abstract] -



Figures

Figure 1 Estimated New HIV Infections (HIV Incidence) in United States, 2021

Source: Centers for Disease Control and Prevention. Estimated HIV Incidence and Prevalence in the United States, 2017–2021. HIV Surveillance Supplemental Report. 2023;28(3). Published May 2023.

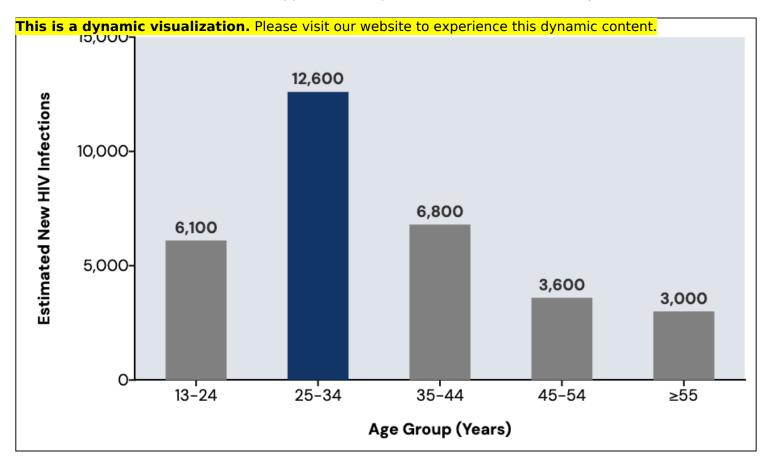




Figure 2 HIV Incidence Trends and National Goals for New HIV Infections

Source: Centers for Disease Control and Prevention. Estimated HIV Incidence and Prevalence in the United States, 2017–2021. HIV Surveillance Supplemental Report. 2023;28(3). Published May 2023.

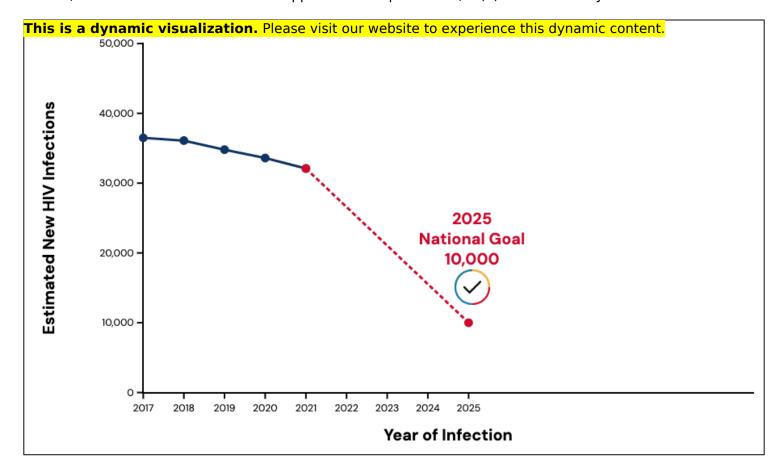




Figure 3 Assessing Indications for HIV PrEP in Sexually-Active Persons

Abbreviations: STI = sexually transmitted infection; MSM = men who have sex with men; GC = gonorrhea; MSW = men who have sex with women In this figure PrEP refers to HIV PrEP

Source: Centers for Disease Control and Prevention: US Public Health Service: Preexposure prophylaxis for the prevention of HIV infection in the United States—2021 Update: a clinical practice guideline. December 2021:1-108.

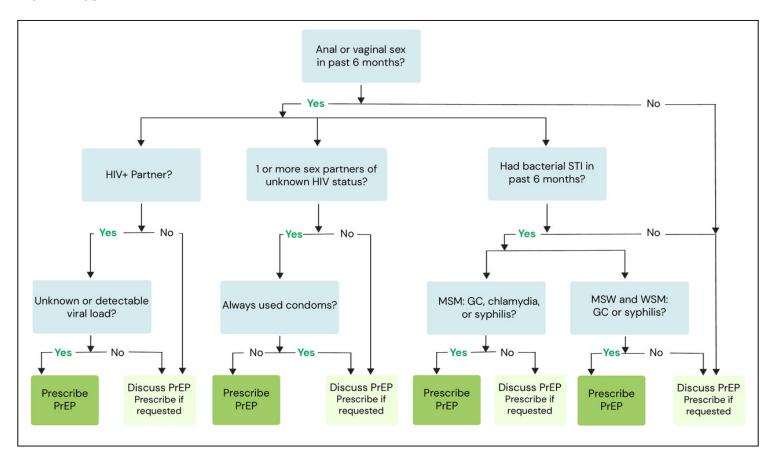




Figure 4 Assessing Indications for HIV PrEP in PWID

Abbreviation: PWID = people who inject drugs

In this figure, PrEP refers to HIV PrEP

Source: Centers for Disease Control and Prevention: US Public Health Service: Preexposure prophylaxis for the prevention of HIV infection in the United States—2021 Update: a clinical practice guideline. December 2021:1-108.

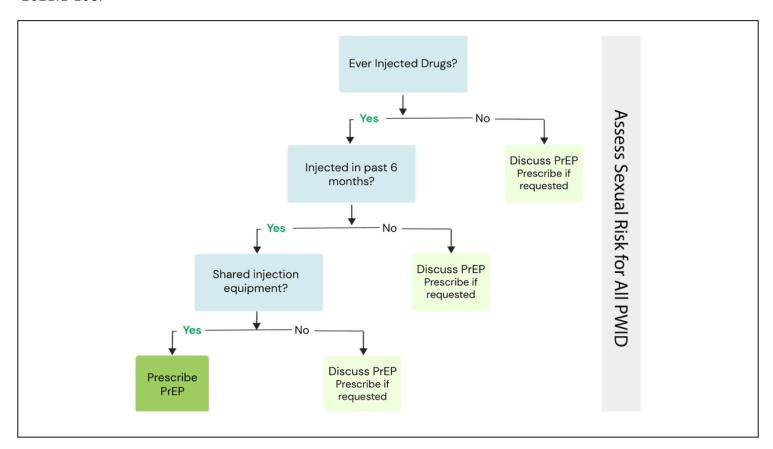




Figure 5 HIV PrEP Tools for Clinicians: Assessment

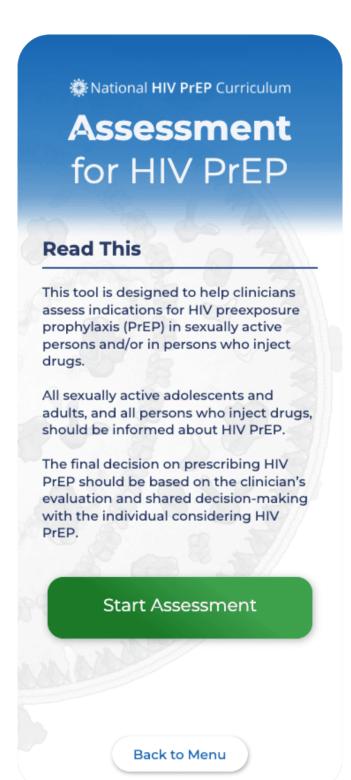




Figure 6 A Guide to Taking a Sexual History

Source: Reno H, Park I, Workowski KA, Aliza Machefsky AM, Bachmann LH. Guide to Taking a Sexual History. Centers for Disease Control and Prevention, CS324772-A; CDC Publication 30-0166.

