

Providing HIV PrEP in Sexual Health Clinic Settings

This is a PDF version of the following document:Module 2:HIV PrEP In-Depth TopicsLesson 6:Providing HIV PrEP in Sexual Health Clinic Settings

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Background

Despite its proven effectiveness for HIV prevention, uptake of HIV preexposure prophylaxis (PrEP) in the United States has been suboptimal—only an estimated 36% of individuals with an indication for HIV PrEP received an HIV PrEP prescription in 2022.[1] Making HIV PrEP available to individuals at risk of HIV acquisition in venues where they seek care is one strategy to increase HIV PrEP uptake and delivery. Populations attending sexual health clinics that provide services for screening and treatment of sexually transmitted infection (STI) may have ongoing risk for HIV acquisition and would, therefore, benefit from HIV PrEP. Similar to the administration of vaccines to prevent human papillomavirus (HPV) infection or use of condoms for other STIs, provision of HIV PrEP in the sexual health clinic setting has become an important component of comprehensive sexual health and preventive care.



Rationale for Providing HIV PrEP in Sexual Health Clinics

STIs Increase the Risk of Acquiring and Transmitting HIV

Many STIs that are commonly diagnosed and treated in sexual health clinics are associated both with a higher risk for HIV acquisition (via genital inflammation or ulceration) and transmission (via increased HIV shedding) (Figure 1).[2,3,4,5,6] This risk is independent of reported sexual behavior.[7,8] Mechanisms by which STI pathogens may facilitate increased HIV risk include physical disruption of normal mucocutaneous barriers and induction of an inflammatory milieu with upregulation of activated T lymphocytes and other immune cells susceptible to HIV uptake. These immunologic changes that confer increased HIV susceptibility can occur even in the absence of genital lesions.[9] Men who have sex with men (MSM) who are diagnosed with bacterial STIs, especially in the rectum, are at particularly high risk of acquiring HIV.[4,5] Further, among MSM newly diagnosed with HIV, a history of an STI in the prior 2 years is common.[5] Similarly, population-based studies in the United States indicate that women diagnosed with an STI have an approximately 3-fold higher risk of acquiring HIV when compared to women without a diagnosis of an STI, and the risk of acquiring HIV is particularly high following a diagnosis of syphilis.[2,3] Although women with an STI have an increased risk of HIV acquisition, the majority of women diagnosed with HIV have not been previously diagnosed with an STI.[2,10]

STI Risk by Pathogen

The following summarizes the relative risk of acquiring HIV with common STIs in persons who are not receiving HIV PrEP (Figure 4).

- Herpes simplex virus (HSV): Based on several meta-analyses, prevalent HSV-2 infection increases risk of HIV acquisition 2- to 3-fold.[6,9] New HSV-2 infection is associated with an even higher risk of HIV infection: 5- to 7-fold overall, or up to 16-fold in some men.[9]
- **Syphilis**: Evidence abounds across populations that syphilis is a strong predictor of HIV acquisition.[2,5,10,11] Without the use of HIV PrEP, HIV incidence has reached nearly 20% in some populations within 10 years after receiving a syphilis diagnosis.[2,12] Women diagnosed with syphilis have an 8- to 20-fold increased risk of subsequently acquiring HIV.[2,10] One large study of HIV PrEP efficacy among cisgender men and transgender women who have sex with men on HIV PrEP showed a 3- to 4-fold increased risk of acquiring HIV after a recent syphilis diagnosis; in this study, there was no evidence for reduction in HIV PrEP efficacy among persons with detectable levels of tenofovir when comparing those who had syphilis and those who did not.[13]
- **Gonorrhea and Chlamydia**: Among women, a diagnosis of gonorrhea or chlamydia is associated with a 2- to 6-fold increased risk of subsequent HIV acquisition compared to women who have never been diagnosed with an STI. Among MSM, gonorrhea and chlamydia—particularly rectal gonorrhea and chlamydia—increased the risk of HIV acquisition independent of reported sexual behavior.[2,5,7,8,14,15]
- **Bacterial vaginosis**: Among a general population of South African women involved in a cervical cancer screening study, bacterial vaginosis was associated with a 2-fold higher odds of HIV seroconversion within 6-36 months.[<u>16</u>]
- **Trichomoniasis**: A meta-analysis of studies conducted on both women and men in sub-Saharan Africa found that infection with *Trichomonas vaginalis* increased the likelihood of HIV acquisition by 50%.[<u>17</u>]
- Human Papillomavirus (HPV): A meta-analytic systematic review of 14 studies including men and women showed that HIV incidence was nearly 2-fold higher in those with HPV infection.[18]

Sexual Health Clinics are an Ideal Setting for HIV PrEP

Sexual health clinics are an ideal setting to provide HIV PrEP as they frequently serve populations at risk for HIV and STIs, and they are often staffed by health professionals with expertise in talking factually and without



judgment about sex, STIs, and HIV prevention.[<u>19,20</u>] The following outlines the rationale for providing HIV PrEP at sexual health clinics.

- Clinics Often Have Strong Regional Support: State and local health departments have supported dedicated sexual health clinics since the early 20th century. Though funding and resources have wavered over recent years, sexual health clinics remain a valuable part of safety net STI care, particularly for people who may not regularly access health care services, including those who are uninsured and those who seek confidential services.[21,22,23]
- Strong Interest in HIV PrEP at Clinics: Persons attending sexual health clinics report high interest in taking HIV PrEP.[24,25] Thus, visits to a sexual health clinic represent a valuable opportunity to screen for HIV, and, if negative, offer HIV PrEP to those who interested and meet criteria for use. Persons who test positive for HIV can then receive linkage to HIV care services for immediate initiation of antiretroviral therapy. In addition to screening for HIV PrEP in the clinic setting, staff conducting STI partner services are often associated with sexual health clinics and could leverage client interviews to identify additional candidates for HIV PrEP.[26]
- Enhanced Uptake using Integrated Model: Integrating HIV PrEP on-site at a sexual health clinic may further increase HIV PrEP uptake. Mathematical models show potentially greater effectiveness of HIV prevention through delivery of HIV PrEP to MSM at sexual health clinics than through the community alone.[27] External referrals for HIV PrEP can lead to a longer time before HIV PrEP initiation and higher loss-to-follow-up rates.[28]



Evidence for Providing HIV PrEP in Sexual Health Clinics

Multiple sexual health clinics have successfully developed programs to implement HIV PrEP services into the overall role of the clinic. The following summary outlines several examples (in alphabetical order) of successful HIV PrEP integration in sexual health clinics.

- **Fulton County—Public Health**: The Fulton County health department launched an HIV PrEP clinic in 2015 to reach marginalized populations within the greater Atlanta area. Within the first 2 years after implementation, 399 people were screened for HIV PrEP, and 216 (54%) of eligible patients received an HIV PrEP prescription.[29]
- Multi-Site—Public Health: In a demonstration project in sexual health clinics in San Francisco and Miami and a community health center in Washington DC, MSM and transgender women at risk for HIV acquisition were provided free oral TDF-FTC and were followed for more than 2 years.[<u>30</u>] At 48 weeks after initiating HIV PrEP, 437 (78.5%) of 557 individuals were successfully retained in care and were taking HIV PrEP.[<u>30</u>] Overall adherence was excellent based on self-reporting and pill counts, and dried blood spot tenofovir diphosphate levels showed levels in the protective range throughout 48 weeks in more than 80% of the participants (<u>Figure 5</u>).[<u>30</u>]
- Seattle & King County—Public Health: The Public Health Seattle & King County Sexual Health Clinic has provided HIV PrEP since 2014 and utilizes a demedicalized care model. A total of 1,387 patients attended an initial HIV PrEP visit at the sexual health clinic between 2014 and 2019.[31] Of 6,887 HIV PrEP visits during this time, 57% were with a clinician, 43% were with a disease intervention specialist, and 0.4% were with a nurse.[31]
- Washington DC—Family Planning and Women's Sexual Health: At a family planning and women's sexual health clinic in Washington DC, universal HIV prevention and same-day HIV PrEP initiations were integrated after a week-long staff and provider training.[32] Within 3 months after HIV PrEP implementation, the proportion of patients screened for HIV PrEP eligibility increased from 0 to 65%.[32] Women who chose to initiate HIV PrEP were offered same-day prescriptions, while those interested but not yet ready to begin HIV PrEP were referred to local HIV PrEP clinics or provided future appointments to revisit initiation.[32]



Identifying HIV PrEP Candidates in Sexual Health Clinics

Defining HIV PrEP Eligibility

Sexual Health Clinics should determine which HIV PrEP criteria they will use for recommending HIV PrEP. The Centers for Disease Control and Prevention (CDC) guidelines may be adapted directly, or clinics may establish their own criteria for offering HIV PrEP based on their local HIV and STI epidemiology.[33] Defining HIV PrEP "eligibility" criteria allows SHC providers and staff to triage clients for HIV PrEP and prioritize those at highest risk of acquiring HIV.

Determining HIV PrEP Eligibility with Screening Tools

Once clinics establish criteria for offering HIV PrEP, they may wish to establish at least one method of administering an HIV PrEP screening questionnaire/tool. This tool would combine criteria drawn from locally developed HIV PrEP guidelines with questions regarding clients' interest in taking HIV PrEP. The following summarizes several examples of methods to administer an HIV PrEP screening questionnaire/tool:

- In-Clinic, in-Person Interviews: HIV PrEP screening tool administered by a nurse, medical assistant, or a prescribing medical provider.
- In-Clinic, Self-Administered: HIV PrEP screening tool is completed by the patient, either on paper or electronically (i.e., a computer-assisted self-interview).[34]
- **Prompts from Electronic Health Record (EHR) Systems**: Many clinics already have electronic systems (CASI or EHR) that collect the same information from patients that would be on an HIV PrEP screening tool (e.g., diagnosis of syphilis in the past 12 months). The EHR can alert the clinician when a person meets these criteria.
- Screening by Partner Services/DIS Interviews: Disease Intervention Specialists (DIS), who routinely contact persons diagnosed with an STI, complete the HIV PrEP screening tool with them during the partner services process (Figure 6).[26,35,36]



Identifying and Addressing Barriers in Sexual Health Clinics

There are many factors to consider when integrating HIV PrEP services into sexual health clinics.[<u>37</u>] The following table summarizes key factors that might serve as barriers or facilitators to successfully implementing HIV PrEP at sexual health clinics, and should be considered prior to implementation. Table 1.

Common Barriers and Facilitators for Providing HIV PrEP Services in Sexual Health Clinics

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Barriers		Facilitato
"Provider purview paradox"—a sexual health clinic is not a primary care or HIV specialist clinic	Already seeing high-inci relationships, etc.)	ence populations
Limited staffing and budget	Care model at a sexual l sexual health	ealth clinic is alre
Patient volume is high and too little time per encounter for extensive counseling	Sexual health clinic prac history and using inform to contraception counse	titioners are alrea ation to engage ir ing)
Unfamiliarity with antiretrovirals if sexual health clinic does not offer HIV PEP	Often sexual health clini intervention specialists	cs already have w who do partner se



Optimizing Implementation of HIV PrEP in Sexual Health Clinics

Develop HIV PrEP Uptake and Recruitment Strategies

The following summarizes several suggested strategies for clinics to employ as part of an overall effort to enhance interest and uptake in HIV PrEP in the SHC setting.

- Education/Advertisement in Clinic: Clinics can place patient-facing HIV PrEP posters in the waiting room or lobby and in exam rooms to increase visibility of HIV PrEP. Staff can wear pins or buttons that invite questions about HIV PrEP.
 - Centers for Disease Control and Prevention (CDC): The CDC website <u>Let's Stop HIV Together</u> has excellent HIV PrEP-related posters and brochures appropriate for clinic waiting rooms and lobbies that can be downloaded as PDFs or ordered as printed materials through the CDC.
 - Health Resources and Services Administration (HRSA): The HRSA website <u>Ready, Set, PrEP</u> has an array of inclusive posters, videos, fact sheets, and social media graphics. All materials, except for the videos, include PDF download options.
- **Involvement of All Clinic Staff**: All clinic personnel should be aware if HIV PrEP is offered in their clinic and informed about local resources for HIV PrEP. Other staff who may interact more directly with patients (administrative leadership, registration staff, disease intervention specialists, health educators, peer navigators, medical assistants, etc.) should be trained on basic HIV PrEP knowledge and encouraged to broach HIV PrEP discussions with patients.
- **Prompt from Electronic Health Record (EHR):** Clinics may wish to implement a dedicated HIV risk assessment tool within the EHR and/or update the EHR note templates to ask about HIV PrEP if a client is coming in for STI (especially syphilis or gonorrhea) treatment or evaluation.

Staffing for HIV PrEP Service Delivery

Sexual health clinics may wish to create a multidisciplinary HIV PrEP team to determine how to implement HIV PrEP in their clinics. The HIV PrEP teams could include an "HIV PrEP champion" to facilitate the roll-out of the HIV PrEP staffing model. When delineating staff roles, it is important to consider which clinic staff will be responsible for:

- Identifying patients who are candidates for HIV PrEP
- Assisting patients with navigating medication financial assistance
- Prescribing HIV PrEP
- Scheduling follow-up visits
- Conducting outreach between visits
- Seeing patients at quarterly visits and doing phlebotomy
- Reviewing all laboratory monitoring studies
- Contacting individuals who have dropped out of HIV PrEP care and monitoring
- Managing or creating internal guidance for challenging clinical HIV PrEP scenarios

Note: This approach and the roles assigned to staff will vary for implementation of oral HIV PrEP with tenofovir DF-emtricitabine (TDF-FTC) and tenofovir alafenamide-emtricitabine (TAF-FTC), and injectable HIV PrEP with long-acting injectable cabotegravir (CAB-LA). The use of CAB-LA requires specific pre-implementation planning, including identifying appropriate candidates for injectable HIV PrEP, outlining clinic protocols, identifying who will obtain pre-authorizations or approvals for the medication, and who will administer injections.

Staffing Models for Prescribing HIV PrEP

There are many different staffing models for clinics that provide HIV PrEP. All clinic staff should receive training (online curriculum, in-person training from a local expert, etc.) on HIV PrEP efficacy, real-world



effectiveness, and eligibility criteria. This may be updated at regular intervals (every 6 to 12 months) to ensure all staff interacting with prospective or current HIV PrEP users are comfortable discussing HIV PrEP. Some of the key staff in an HIV PrEP Clinic may include:

- **HIV PrEP Navigators**: Many successful sexual health clinic-based HIV PrEP programs have trained existing staff, such as disease intervention specialists (DIS), to become dedicated HIV PrEP navigators, whereas others may flex staff from other "navigator-type" positions.[<u>38,39</u>] Depending on the patient volume in a clinic, navigators could "task shift" to work in various roles as needed. The role of the HIV PrEP navigators includes but is not limited to:
 - Assisting patients with financial coverage for HIV PrEP: navigating private insurance, pharmaceutical, or state-sponsored patient assistance programs
 - Coordinating with patients and promoting retention in care (e.g., scheduling visits, doing visit reminders and check-ins with patients and/or follow-up after missed appointments)
- Conducting routine follow-up (see patients at quarterly visits, doing phlebotomy if possible)
 Clinician Medication Prescribers: Clinicians, including physicians and advanced practice providers, can engage with patients for the initial visit related to HIV PrEP, which may include counseling them on the basics of HIV PrEP, answering clinical questions, ordering laboratory studies, and writing the initial HIV PrEP prescription. For routine follow-up visits, clinicians do not need to see patients at each visit. Other staff, such as HIV PrEP navigators, can conduct quarterly check-ins with patients and decrease follow-up visits with clinicians to 6- or 12-month intervals, or as indicated if other clinical issues arise (e.g., adverse effect of medication, etc.). Clinicians evaluating individuals for HIV PrEP initiation and follow-up should receive appropriate training focused on HIV PrEP prescribing,
 - monitoring, and clinical management.
- Nursing Team: Nurses can also play a role in reviewing HIV PrEP eligibility with persons who are seeking routine STI screening visits, as well as persons visiting the clinic for evaluation as a contact to a partner who was diagnosed with an STI. Patients who would benefit from HIV PrEP and express interest in starting HIV PrEP can then receive a referral either within the clinic or externally. Several clinics in Canada and Australia have successfully implemented such models.[40,41,42]
- **Evaluator/Analyst**: Training a primary database manager, analyst, or epidemiologist who is familiar with the operations of the clinic in key HIV PrEP metrics will support quality improvement and accountability to program goals, such as offering HIV PrEP to those most at risk of acquiring HIV and prioritizing them for retention. Suggested data and metrics for the evaluator to monitor are described below in the section: Establish and Analyze Clinic HIV PrEP Metrics.

Streamline HIV PrEP Rapid Starts

There is evidence to support rapid HIV PrEP starts in the sexual health clinic setting.[<u>31,43</u>] The concept of rapid HIV PrEP, often also referred to as same-day HIV PrEP, is that a person who is evaluated for HIV PrEP in the clinic receives an HIV PrEP prescription on the same day as the evaluation if a rapid HIV test is negative. In addition, laboratory studies are performed that day with clinician follow-up of results. In contrast, standard HIV PrEP typically involves deferring starting HIV PrEP until the results from the initial laboratory results have returned. To see more detailed information regarding same-day (rapid) HIV PrEP initiation, see the *HIV PrEP In-Depth Topics* lesson on <u>Same Day (Rapid Start) for Oral HIV PrEP</u>. Before implementing rapid HIV PrEP starts, clinics should address all the following:

- Develop rapid HIV testing capacity to facilitate rapid HIV PrEP starts.
- Establish which clinic providers can prescribe HIV PrEP and develop a protocol for standing orders or ability for DIS, HIV PrEP navigators, or nurses to send an HIV PrEP prescription under a prescriber's name.
- If logistically feasible, consider integrating walk-in/drop-in appointments, which may increase uptake.[43,44,45]
- Identify a staff person who is familiar with HIV PrEP financial assistance to be available to enroll uninsured HIV PrEP candidates in same-day insurance coverage
- Determine the feasibility of providing a free 30-day supply of generic oral HIV PrEP



• Meet the medical requirements for same-day (rapid) start for oral HIV PrEP.



HIV PrEP Follow-Up and Ongoing Care

- Follow-up visits and laboratory monitoring for persons receiving HIV PrEP through sexual health clinics are similar to those in other settings.[33,46] The clinical follow-up and recommended monitoring for laboratory studies are summarized and discussed in detail in the *HIV PrEP Fundamentals* module lesson on <u>Follow-Up Care and Monitoring on HIV PrEP</u>. In addition, summary tables for follow-up laboratory studies are available in the <u>Laboratory Monitoring Guide</u> on this website.
- After HIV PrEP initiation, the early check-in (from 1 week to 1 month), historically a component of early HIV PrEP programs, is no longer universally observed. Quarterly follow-up visits can be with an HIV PrEP navigator, health educator, nurse, or other sexual health clinic staff person.
- Clinicians may briefly evaluate individuals at the initial visit and thereafter at intervals determined by clinical staff. For instance, one strategy could be routine quarterly visits with an HIV PrEP support staff (e.g., HIV PrEP navigator) and an annual visit with clinicians. If HIV PrEP navigators or other staff feel comfortable managing routine HIV PrEP cases, they may only need to consult with an available clinician as needed for more complex issues (e.g., changes in serum creatinine, management of positive STI screening tests, and monitoring annual HCV antibody testing).
- Encrypted or otherwise secure text message reminder programs may facilitate early HIV PrEP adherence support. If possible, utilizing an interactive (or two-way) messaging platform is preferred and often more beneficial to patients than generic one-way reminders. Many electronic medical record programs include a secure messaging feature to allow protected health information to be exchanged between clinic staff and patients. Less frequent messages may be more acceptable to patients than daily automated messages.[47,48,49]
- Clinics may also consider options for facilitating self-collection of samples from home or sending orders to external laboratories that may be more geographically convenient for patients needing quarterly HIV PrEP monitoring.[50,51,52]



Establish and Analyze Clinic HIV PrEP Metrics

Suggested Metrics for Monitoring

Sexual health clinics that implement HIV PrEP should consider routinely monitoring metrics to promote and increase the number of persons who receive HIV PrEP, and to identify areas for improvement. The following list provides 7 suggested metrics to follow.

- 1. Number and percentage of patients who attend the sexual health clinic who are already receiving HIV PrEP
- 2. Number and percentage of patients who would benefit from HIV PrEP (as defined by local sexual health clinic guidelines)
- 3. Number and percentage of patients who are offered HIV PrEP by sexual health clinic staff (among those who are eligible)
- 4. Number and percentage of patients who receive an HIV PrEP prescription (among those who were offered; a measure of uptake)
- 5. Number and percentage of patients who filled their first HIV PrEP prescription
- 6. Number and percentage of patients who had a visit within 4 months of starting HIV PrEP
- 7. Number and percentage of patients still on HIV PrEP after 6 months (a commonly used measure of HIV PrEP persistence)

Logistical Considerations for Clinics Monitoring PrEP Metrics

There are three key considerations for clinics that will be routinely monitoring HIV PrEP metrics:

- 1. Consider supporting personnel (e.g., epidemiologist/analyst) to provide data quality control/quality assurance and to have primary responsibility for analyzing HIV PrEP data.
- 2. Consider establishing a frequency (e.g., monthly) for developing reports on primary metrics.
- 3. Consider engaging with the EHR system administrators and staff early to ensure the data are available and accessible. Collecting data on some of these metrics may require changes to data collection systems, including EHRs.



Financial Considerations for PrEP Integration into SHC

Depending on the number of staff and their existing duties, integration of HIV PrEP within the SHC may strain clinic resources if the volume of HIV PrEP patients is large. Before implementing HIV PrEP, clinics may need to consider the cost of hiring and training additional staff, such as HIV PrEP navigators. Task shifting (e.g., assigning a disease intervention specialist to handle new HIV PrEP starts) may be one strategy to minimize additional costs by utilizing existing staff. Eligible sexual health clinics may register and enroll in drug pricing programs under section 340B of the Public Health Service Act (340B Eligibility). Entities that are 340B-eligible may utilize program funds to purchase medication used for HIV PrEP at a discounted price. Cost savings from 340B pricing have the potential to translate into additional program income that can be utilized for other areas, such as expanding staffing. In addition, jurisdictions that receive Ending the HIV Epidemic funding may consider how activities related to HIV PrEP implementation could fit into Ending the HIV Epidemic program budgets.



Summary Points

- Sexually transmitted infections increase the risk of transmission and acquisition of HIV. This risk is highest with syphilis.
- Integrating HIV PrEP into sexual health clinics can increase HIV PrEP uptake and coverage among populations at risk for HIV acquisition who are already seeking sexual health care.
- Successful models of HIV PrEP integration into sexual health clinics exist across several geographic areas that utilize a variety of referral, direct care, and follow-up strategies.
- After determining HIV PrEP criteria based on local epidemiology, sexual health clinics should determine the best strategies for identifying patients who would benefit from HIV PrEP.
- Important planning considerations for HIV PrEP implementation in sexual health clinics include training staff and providers on the indications for HIV PrEP, securing funding for additional staff, obtaining onsite oral HIV PrEP medication for rapid initiation of HIV PrEP, determining which team members will initiate HIV PrEP, and providing follow-up and retention services.
- Many sexual health clinics have utilized flexible staffing models, including task-shifting, to maximize HIV PrEP services.
- Sexual health clinics that provide HIV PrEP services should establish a plan for evaluating HIV PrEP metrics and quality improvement.



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Figure 1 (Image Series) - Increased Risk of HIV Acquisition in Persons with STIs (Image Series) - Figure 1 (Image Series) - Increased Risk of HIV Acquisition in Persons with STIs Image 1A: HIV Incidence (per 100,000 persons) among MSM Following Diagnosis of STIs

Abbreviations: GC = gonorrhea; CT = *Chlamydia trachomatis*; MSM = men who have sex with men; STI = sexually transmitted infection

These data are shown for men who have sex with men diagnosed with an STI in Washington State. The overall HIV incidence (1.6 per 100 person-years) among MSM diagnosed with an STI was four times greater than the estimated HIV incidence among all MSM in the state (0.4 per 100 person-years).

Source: Katz DA, Dombrowski JC, Bell TR, Kerani RP, Golden MR. HIV Incidence Among Men Who Have Sex With Men After Diagnosis With Sexually Transmitted Infections. Sex Transm Dis. 2016;43:249-54.





Figure 1 (Image Series) - Increased Risk of HIV Acquisition in Persons with STIs Image 1B: History of STI in Prior 2 Years Among MSM with New HIV Diagnosis

Abbreviations: STI = sexually transmitted infection; GC = gonorrhea; CT = *Chlamydia trachomatis*; MSM = men who have sex with men

This graph shows that among 736 MSM men who have sex with men who were newly diagnosed with HIV, approximately 14% had an STI in the prior 2 years.

Source: Katz DA, Dombrowski JC, Bell TR, Kerani RP, Golden MR. HIV Incidence Among Men Who Have Sex With Men After Diagnosis With Sexually Transmitted Infections. Sex Transm Dis. 2016;43:249-54.





Figure 1 (Image Series) - Increased Risk of HIV Acquisition in Persons with STIs Image 1C: HIV Risk After a Diagnosis of Syphilis, Gonorrhea, or Chlamydia in Women

Abbreviations: STI = sexually transmitted infection

These data are from 2000-2009 and are showing the risk of HIV with or without an STI

Source: Peterman TA, Newman DR, Maddox L, Schmitt K, Shiver S. Risk for HIV following a diagnosis of syphilis, gonorrhoea or chlamydia: 328,456 women in Florida, 2000-2011. Int J STD AIDS. 2015;26:113-9.





Figure 2 History of Sexually Transmitted Infection in Prior 2 Years Among Men Who Have Sex with Men with New HIV Diagnosis

Abbreviations: STI = sexually transmitted infection; CT = *Chlamydia trachomatis*; GC = gonorrhea; MSM = men who have sex with men

This graph shows that among 736 MSM men who have sex with men who were newly diagnosed with HIV, approximately 14% had a sexually transmitted infection in the prior 2 years.

Source: Katz DA, Dombrowski JC, Bell TR, Kerani RP, Golden MR. HIV Incidence Among Men Who Have Sex With Men After Diagnosis With Sexually Transmitted Infections. Sex Transm Dis. 2016;43:249-54.





Figure 3 Risk for HIV following a Diagnosis of Syphilis, Gonorrhea, or Chlamydia in Women, 2000-2009 (Risk of HIV with STI versus no STI)

Abbreviations: STI = sexually transmitted infection

Source: Peterman TA, Newman DR, Maddox L, Schmitt K, Shiver S. Risk for HIV following a diagnosis of syphilis, gonorrhoea or chlamydia: 328,456 women in Florida, 2000-2011. Int J STD AIDS. 2015;26:113-9.





Figure 4 Impact of Sexually Transmitted Infections and Risk of HIV Acquisition

Source: Image illustration by Chason Cannon, MD, MPH and Peter Harrison, MPH





Figure 5 Protective Tenofovir Levels in Persons Receiving HIV PrEP in Sexual Health Clinics and Community Health Centers

*Concentrations determined based on tenofovir diphosphate levels on dried blood spot samples Abbeviations: TFV-DP = tenofovir disphosphaate;

Source: Liu AY, Cohen SE, Vittinghoff E, et al. Preexposure Prophylaxis for HIV Infection Integrated With Municipal- and Community-Based Sexual Health Services. JAMA Intern Med. 2016;176:75-84.





Figure 6 HIV PrEP Referrals and Use Among HIV-Negative MSM Diagnosed with Bacterial STDs in King County, Washington; August 2014-August 2017, High-Risk MSM

This figure shows HIV PrEP interviews and referrals from disease intervention specialists providing partner services to MSM diagnosed with a bacterial STI in King County, Washington, from August 2014 through August 2017.

Source: Katz DA, Dombrowski JC, Barry M, Spellman D, Bell TR, Golden MR. STD Partner Services to Monitor and Promote HIV Pre-exposure Prophylaxis Use Among Men Who Have Sex With Men. J Acquir Immune Defic Syndr. 2019;80:533-41.





Table 1.

Common Barriers and Facilitators for Providing HIV PrEP Services in Sexual Health Clinics

Barriers	Facilitato	
"Provider purview paradox"—a sexual health clinic is not a primary care or HIV specialist clinic	Already seeing high-incidence populations relationships, etc.)	
Limited staffing and budget	Care model at a sexual health clinic is alre sexual health	
Patient volume is high and too little time per encounter for extensive counseling	Sexual health clinic practitioners are alrea history and using information to engage ir to contraception counseling)	
Unfamiliarity with antiretrovirals if sexual health clinic does not offer HIV PEP	Often sexual health clinics already have w intervention specialists who do partner set	

