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## Updated Federal Recommendations for HIV Prevention With Adults and Adolescents With HIV in The United States: The Pivotal Role of Nurses

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In December 2014, the Centers for Disease Control and Prevention (CDC), the Health Resources and Services Administration (HRSA), the National Institutes of Health, the Association of Nurses in AIDS Care (ANAC), and four other nongovernmental organizations issued the *Recommendations for HIV Prevention with Adults and Adolescents with HIV in the United States* (CDC et al., 2014a). The guideline includes recommendations on provision and delivery of services for HIV prevention, care, and treatment to people living with HIV (PLWH) to succeed in reaching and advancing the National HIV/AIDS Strategy (NHAS) prevention and care goals and objectives, including: avert new cases of HIV infection, increase the proportion of PLWH who are aware of their infection, and reduce HIV-related illnesses, death, and health disparities (The White House Office of National AIDS Policy, 2015). The 2014 guideline updates and further expands the 2003 federal *Recommendations for Incorporating HIV Prevention into the Medical Care of Persons Living with HIV* for clinicians (CDC, 2003) and includes recommendations for a broad spectrum of clinicians, nonclinical prevention providers, health departments, and HIV planning groups. The guideline focuses on strategies to reduce onward HIV transmission because these strategies were more effective and cost-effective than strategies to reduce the general risk of HIV acquisition; topics covered in the guideline reflect new evidence about interventions that can prevent HIV transmission from PLWH (CDC et al., 2014a). The full list of recommendations in the main guideline and three different summaries of

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recommendations for three main audiences aim to meet the needs of a broad range of clinical and nonclinical providers.

- The summary for clinical providers is relevant to nurses providing individual-level services in health care facilities, including health department clinics (CDC et al., 2014b).
- The summary for nonclinical providers is relevant to nurses working in HIV testing, prevention, case management, and disease investigation programs outside of health care facilities, such as community-based service organizations and health departments (CDC et al., 2014c).
- The summary for staff of health departments and HIV planning groups is relevant to nurses involved in population-level services, such as HIV surveillance, policy development, and resource allocation (CDC et al., 2014d).

Highlights of selected recommendations and implementation strategies listed in the guideline and summary documents are summarized in Table 1.

The guideline was released more than a year ago, but steadfast efforts continue to promote adoption and implementation of the recommendations among a diverse multiprofessional HIV workforce, including nurses and advanced practice nurses. Training and decision-support tools are available for nurses and interprofessional teams of clinical and nonclinical providers who serve PLWH at <http://effectiveinterventions.cdc.gov/en/HighImpactPrevention.aspx> (CDC, 2015).

The update was initiated as a result of several changes in the context of HIV prevention and care in the United States:

- The lifespan of PLWH continues to increase due to earlier diagnosis and effective treatment (Nakagawa, May, & Phillips, 2013). An estimated 1.2 million people are living with HIV in the United States, an increase of 60% more than in the previous 15 years (CDC, 2013). These increasing numbers pose a challenge to providers of prevention and care services and signal the need for more comprehensive methods to avert HIV transmission (Kalichman et al., 2012).
- More advanced biomedical interventions as well as behavioral and structural prevention strategies can reduce the infectiousness of PLWH and their risks of exposing others to HIV (Cohen et al., 2011; U.S. Department of Health and Human Services, n.d.).
- Recent changes in health care coverage, reimbursement, and delivery, including expanded access to Medicaid and private health plans, have increased access to primary and HIV medical care for PLWH (Patient Protection and Affordable Care Act, 2010).
- There is high demand for HIV prevention and care services in practices staffed by practitioners who do not specialize in HIV care (Institute of Medicine [IOM], 2011b).

- National HIV prevention strategies continue to emphasize the importance of preventing onward transmission from PLWH, improving HIV care and health outcomes, and reducing HIV-related racial/ethnic disparities (The White House Office of National AIDS Policy, 2015).

In this article, we describe the guideline update process, summarize selected relevant recommendations for nurses and health care teams, and highlight some implementation resources for providers.

## Methods

In contrast to the 2003 guideline (CDC, 2003), the 2014 guideline clearly stratifies the recommendations for three primary audiences: clinical providers, nonclinical providers, and staff of health departments and HIV planning groups who provide population-level services, to expand the HIV prevention and care workforce (CDC et al., 2014a). This is consistent with the IOM recommendations (IOM, 2011b) to increase the HIV prevention and care workforce and to reinforce collaboration and coordination between clinical, nonclinical, and public health sectors.

CDC, HRSA, and the National Institutes of Health worked with a broad set of formal partners and stakeholders to update the guideline. They included experts and organizations engaged in HIV clinical care and nonclinical prevention services; health departments and HIV planning groups providing population-based services and involved in health policy decision-making and resource allocation; and PLWH (CDC et al., 2014a). ANAC and four other nongovernmental cosponsoring organizations, the American Academy of HIV Medicine, the International Association of Providers of AIDS Care, the National Minority AIDS Council, and the Urban Coalition for HIV/AIDS Prevention Services, provided substantial input to the guideline (CDC et al., 2014a). More than 100 representatives of HIV prevention and care organizations, including the HIV Medicine Association of the Infectious Diseases Society of America, the National Alliance for State and Territorial AIDS Directors, and the Substance Abuse and Mental Health Services Administration, reviewed multiple drafts and provided feedback.

The 2014 guideline addresses new, effective, evidence-based interventions as well as longstanding but underutilized interventions. It updates four topics that were covered in the 2003 recommendations: behavioral risk screening and risk-reduction counseling, screening and treatment for sexually transmitted diseases (STDs), partner notification, and referral to other medical and social services that can reduce HIV transmission (e.g., substance abuse treatment, mental health services; CDC, 2003). It also covers the social, ethical, legal, and policy contexts of HIV prevention with PLWH; linkage to and retention in health care; initiating and adhering to antiretroviral therapy (ART); reproductive health care for women and men; pregnancy-related services; methods to monitor and evaluate the quality of HIV prevention and care services and programs (CDC et al., 2014a). The guideline does not report on comprehensive primary health care for PLWH, or the clinical management and prevention of some infections that can be common in PLWH but are not proven to impact

HIV transmission, including most opportunistic infections, viral hepatitis, and some STDs (CDC et al., 2014a).

The guideline development workgroup, composed of HIV prevention and care experts at the CDC and HRSA, developed recommendations by (a) restating a large number of recommendations from the most recent federal guidance on these topics and (b) developing new recommendations based on research, program evaluation, and/or expert opinion. In some cases, the workgroup made new recommendations that modified an existing federal recommendation aimed at one provider type (e.g., clinical providers) by extending the recommendation to additional provider types (e.g., nonclinical providers). This decision was made when available evidence, programmatic experience, or expert opinion suggested that other provider types were or could become qualified for and skilled at providing these selected services (CDC et al., 2014a).

## **Role of Nurses in Promoting HIV Prevention With PLWH in Health Departments and HIV Planning Groups**

Nurses working in health departments and HIV planning groups often design, lead, or implement population-based interventions that can prevent HIV transmission from PLWH. Nurses can also advocate to policymakers for coverage of important HIV prevention services that may now be included under the Patient Protection and Affordable Care Act or expanded state Medicaid programs (ETR.org, 2014; Hidalgo, personal communication, September 23, 2015) even though they were not previously covered by some private insurance plans or medical assistance programs. These services seek to provide optimal care to all PLWH and may include (CDC et al., 2014d):

- improved assistance with linkage to and retention in HIV care
- case management for health care services
- expansion of ART adherence support strategies
- covering costs of some ART medications
- provision of support for housing, transportation, and employment
- some substance use treatment and services for mental health care

Nurses can advocate for patient access to more affordable ART. Some ART medications have high-priced copays or may not be included in drug formularies of health plans or medical assistance programs. Nurses can explore options to increase access to affordable ART in their communities, including Medicaid and Medicare, state AIDS Drug Assistance Programs, other state or community assistance programs, private sector health insurance, health care exchange plans initiated under the Patient Protection and Affordable Care Act, and pharmaceutical company drug assistance programs (Centers for Medicare and Medicaid Services & Health Resources and Services Administration, 2013; Patient Protection and Affordable Care Act, 2010; Pharmaceutical Research and Manufacturers of America, 2014; Yi et al., 2011).

## Case Studies: Nurse Implementation of Prevention Recommendations

The following case studies illustrate the important roles nurses play in promoting HIV prevention with PLWH, including roles in which nurses have long excelled in clinical and community settings and highlighted in the IOM report such as patient education and care and development of quality improvement programs (IOM, 2011a). The case studies were drawn from a webinar developed by the CDC and ANAC on March 25, 2015, entitled *Recommendations for HIV Prevention with Adults and Adolescents with HIV in the US: The Pivotal Role of RNs and Advanced Practice RNs* (<http://www.nursesinaidscare.org/i4a/pages/index.cfm?pageid=4712>).

### Case 1: Role of Nurse Case Manager Working for a Community-Based Case Management Program

A nonclinical HIV testing program referred Paul, a 19-year-old, newly diagnosed client, to Cecile, a nurse case manager, to help him engage in HIV services.

Over several weeks, Cecile spoke with Paul at her office or by phone and provided information and services. Cecile:

- stressed that starting HIV treatment would help keep Paul feeling healthy and lower his risk of transmitting HIV
- assured Paul that he could receive confidential HIV services without permission from his parents
- encouraged Paul to start HIV health care as soon as possible and offered to schedule an appointment with a provider who had experience treating PLWH
- explained that Paul could obtain subsidized HIV care at no or low cost if he or his parents were enrolled in a health insurance or medical assistance program
- helped Paul enroll in a state medical assistance program because his parents were not enrolled in a health plan
- offered Paul ongoing advice about managing his HIV infection in the future and scheduled a follow-up phone call after his first HIV clinic visit
- sent Paul a text message to remind him about his first HIV clinic visit
- checked if Paul had attended his first HIV clinic visit
- contacted Paul 3 days after his first clinic visit and asked if he had started taking his HIV medicine, how he obtained his medicines, if he had questions about his care, knew how to pay for his clinic visits or medicine, and if he had notified partners that he might have exposed them to HIV
- met with Paul to show him how to fill his pill box and set a medication reminder alarm on his cell phone
- reminded Paul that taking his medication as prescribed was the most important step he could take to protect his health and would greatly reduce his risk of transmitting HIV to others

- offered to set up a phone call with a health department specialist who could provide free, confidential assistance to notify recent casual sex partners about possible HIV exposure (who Paul had not yet notified) using methods that would not reveal Paul's name
- offered Paul condoms, covered proper use of condoms, and reminded him that condoms could prevent HIV transmission
- encouraged Paul to attend his next HIV care visit and sent him a text message reminder before that visit
- checked if Paul had attended his follow-up HIV care visit

This case study illustrates the many steps that nurses working outside of health care facilities could take to impart important HIV prevention messages, link clients to HIV care, and reinforce HIV prevention and care services advised by HIV health care providers, including ART adherence.

### **Case 2. Nurse in Primary Care Clinic Seeking to Improve Quality of HIV Prevention Services for Patients With HIV**

Connie, BSN, RN, ACRN, the nurse coordinator for a primary care clinic of a large medical center, is charged with improving the quality of HIV care for approximately 30 patients with HIV. She reviewed records of the 30 patients with HIV, applying the principles of clinical quality improvement (plan-do-study-act) and found that, over the previous 2 years:

- 100% reported being sexually active
- 70% were screened for gonorrhea (GC) and chlamydia (CT)
- 90% were screened for syphilis
- 50% had documented HIV/STD prevention counseling

She initiated a quality improvement plan, including an in-service session for nurses, physicians, and medical assistants, that:

- reviewed (a) the importance of screening for the STDs that can facilitate HIV transmission; (b) recent federal guidelines recommending that PLWH be offered sexual risk-reduction information and counseling and are screened at least annually for specific STDs; and (c) recommended STD screening tests and how the needed specimens should be ordered, collected, and billed
- asked participants to review GC, CT, and syphilis screening rates and counseling rates for clinic patients with HIV; reported the documented screening and counseling rates for the previous 2 years
- asked providers to propose benchmarks for improvement and ways to achieve those benchmarks.

After discussion, the group proposed to

- offer GC, CT, and syphilis screening and risk-reduction counseling to 100% of the 30 patients with HIV who attended their next annual visits

- add an electronic health record reminder for STD screening and sexual risk-reduction counseling for all annual visits for patients with HIV
- add a standing order for syphilis screening when blood is collected for CD4+ T cell count and viral load at the annual visit
- train medical assistants to place urine cups for GC and CT specimens and a sexual risk reduction fact sheet in exam rooms for all annual visits
- train nurses to check that STD screening was completed and a fact sheet was provided to each patient before s/he left the clinic.

After 9 months, the group reconvened during an in-service session. They learned that:

- 28 of the 30 patients remaining in the clinic had had an annual exam
- electronic health record review revealed that 94% of patients who returned for an annual exam had been screened for GC and CT, 100% were screened for syphilis, and 85% had received the risk reduction fact sheet
- patients who were not screened for GC and CT attended the clinic on a day when the medical assistant was absent, no urine specimen was collected, and STD screening at all visits was not documented.

The group agreed to maintain the existing quality improvement methods, to cross-train nurses and physicians to check that urine cups are placed in exam rooms for all annual visits, and to reconvene the group in a year for an in-service session to review the quality improvement plan.

This case study illustrates how nurses could use standard methods to improve HIV prevention services: clinical quality improvement principles, use of multiprofessional teams, and task sharing across provider types.

## Discussion

The updated recommendations for preventing HIV transmission from PLWH in the United States are comprehensive and far-reaching. It is important that nurses and advanced practice nurses concentrate attention and efforts on interventions that are practical and achievable in their respective practice settings by using their expert authority, talents, and available resources to address the needs of patients and communities. As a starting point, nurses can

- examine the recommendations and assess awareness and implementation of prevention interventions in their practice settings
- compare prevailing versus recommended practices to identify gaps that may warrant quality improvement efforts
- employ available resources (see Table 2)
- develop and adopt new operating models for HIV prevention and care, such as task-sharing and task-shifting within a multiprofessional team approach (to include nurses, physicians, pharmacists, case managers, etc.)

- promote collaborations or contracts with health departments and community-based organizations
- use rapid-cycle quality improvement principles of plan-do-study-act to identify interventions that address important gaps in prevention services and propose solutions that respond to the needs of PLWH and the larger community.

## Conclusions

By employing updated recommendations, strategies, and implementation resources, nurses, advanced practice nurses, and multiprofessional teams can work together in a joint effort to provide high-quality services to PLWH, with the goal of preventing HIV transmission. As leaders, technical experts, and advocates in clinical and community settings, nurses will continue to play crucial roles in HIV prevention and care in the United States.

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**Table 1**

Selected Recommendations and Strategies for Providers in Health Care Facilities (Clinical Providers) or Community Organizations (Nonclinical Providers), by Topic<sup>a</sup>

<b>Individual, social, structural, ethical, legal, and policy context of prevention</b>	
Become familiar with	
<ul style="list-style-type: none"> <li>• Social and structural factors that influence use of prevention and care services</li> <li>• Laws and policies about disclosing HIV status and provider duties about case reporting, confidentiality, informed consent, and duty to inform exposed persons</li> </ul>	
Support	
<ul style="list-style-type: none"> <li>• Partnerships between PLWH and their service providers that foster collaboration, communication, and a spirit of shared responsibility for HIV prevention and care that benefit individuals and the community</li> <li>• PLWH enrollment in long-term health care coverage to hasten access to HIV treatment and prevention services and to reduce health disparities</li> </ul>	
Encourage	
<ul style="list-style-type: none"> <li>• Communication that does not stigmatize or negatively judge PLWH, their gender identity, sexual orientation, or sexual and drug-use behaviors</li> <li>• Planning by PLWH to notify exposed sex and drug-injection partners through partner notification assistance or self-disclosure</li> </ul>	
<b>Linkage to and retention in HIV care</b>	<b>Additional recommendations and strategies for providers in health care facilities (clinical providers)<sup>c</sup></b>
<ul style="list-style-type: none"> <li>• Inform patients/clients about benefits of starting ART and staying in care</li> <li>• Assess facilitators and barriers to linkage to and retention in care and provide/make referrals for other health care and social services</li> <li>• Help PLWH enroll in health insurance or medical assistance programs</li> <li>• Provide immediate, active, repeated linkage services striving to start care as soon as possible but within 3 months after diagnosis<sup>b</sup></li> <li>• Track outcomes of linkage and retention services and provide follow-up assistance, as allowed by jurisdiction</li> <li>• Help schedule the first HIV clinical appointment, seeking same-day or priority appointments when possible, especially for newly diagnosed persons</li> <li>• Provide transportation assistance to the first visit, when possible</li> <li>• Help schedule follow-up HIV health care visits</li> </ul>	<ul style="list-style-type: none"> <li>• Offer convenient scheduling whenever possible (e.g., same-day or priority appointments, extended hours)</li> <li>• Maintain a patient-friendly environment that welcomes and respects all patients</li> <li>• Provide reminder for first appointment, using the patient's preferred contact method</li> <li>• Implement clinical decision-support tools or systems that alert providers about patients with suboptimal follow-up, increasing viral loads, or decreasing CD4+ T cell counts</li> </ul>
<b>Initiation of and adherence to ART</b>	<b>Additional recommendations and strategies for providers in health care facilities (clinical providers)<sup>c</sup></b>
<ul style="list-style-type: none"> <li>• Inform all PLWH about health benefits and limitations of ART use:             <ul style="list-style-type: none"> <li>– improves health and increases longevity</li> <li>– decreases transmission to others</li> <li>– requires lifelong treatment with sustained high adherence</li> <li>– may cause side effects</li> <li>– may not eliminate all risk of transmission</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Offer ART according to U.S. Department of Health and Human Services recommendations<sup>d</sup>, regardless of CD4+ T cell count, for treatment and prevention</li> <li>• When prescribing, provide information to increase understanding of             <ul style="list-style-type: none"> <li>– ART benefits and risks</li> <li>– hazards of sharing ART with others</li> <li>– the facts that ART use is voluntary and declining ART will not preclude other services</li> </ul> </li> </ul>

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**Individual, social, structural, ethical, legal, and policy context of prevention**


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- Inform PLWH about PrEP and nPEP for their uninfected partners:
  - if clinically indicated to decrease acquisition risk
  - may not eliminate all risk of HIV acquisition
- Inform PLWH taking ART about benefits of high adherence, even if they feel well, and risks of low adherence (ART resistance, transmission)
- Provide adherence support, tailored to each person's regimen and characteristics, according to provider role, authority, and setting
- Provide/refer for services that address factors that impair adherence (e.g., unstable housing, mental illness)
- Offer advice on obtaining coverage or subsidies for ART costs
- Address misinformation, misconceptions, negative beliefs, or other concerns about ART regimen or adherence
- Assess ART readiness, facilitators, and barriers before prescribing ART
- Offer effective regimens, preferably that decrease pill burden, dosing frequency, and dietary restrictions
- Advise to take ART as prescribed after checking for understanding of
  - regimen details
  - how to manage missed doses and side effects
  - interactions with drugs and other substances
- Assess self-reported adherence at each visit using nonjudgmental manner
- Monitor VL, a measure of ART effectiveness that adherence may affect
- Assess and manage side effects at each visit

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**Risk screening and risk-reduction services**


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- Train staff to create a trusting, supportive, and nonjudgmental atmosphere that encourages PLWH to be honest, to voluntarily disclose sex and drug-use behaviors and health information, and to ask questions
- Screen PLWH at initial and later encounters (at least yearly, more often as needed) for:
  - behavioral risk factors (e.g., unprotected sex)
  - biologic characteristics (e.g., STD diagnoses, viral load, ART use)
  - characteristics of partners (e.g., use of PrEP)
- Use information collected during risk screening to identify a person's risks and offer risk-reduction messages and interventions tailored to the individual, such as
  - information to correct misperceptions
  - behavioral and biomedical interventions
  - condoms and referrals for legal syringe services

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**Services for sex and drug-injection partners (not including services provided by health department partner services specialists)**


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- Develop policies/procedures for clients/patients to obtain PS from HD or other authorized providers
  - Identify PLWH who warrant PS and expedite services if there is
    - acute HIV infection (lab tests or clinical evaluation, as appropriate to setting)
    - a high VL
    - newly reported or diagnosed HIV
    - a newly diagnosed STD indicating unprotected sex
    - a current pregnancy or pregnant partner
    - a request for PS assistance
  - Promptly refer person to HD partner services specialists
  - If person declines HD assistance, offer PS as per provider authority:
    - directly to person and referred partners or
    - support person's self-notification of partners
  - Routinely provide verbal, print, or audiovisual materials about partner services benefits, potential risks, procedures, and option for voluntary, confidential HD assistance
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**Individual, social, structural, ethical, legal, and policy context of prevention**

STD preventive services	Additional recommendations and strategies for providers in health care facilities (clinical providers) <sup>C</sup>
<ul style="list-style-type: none"> <li>• Inform PLWH about methods to decrease HIV and STD transmission, STDs that can increase VL, and STD screening benefits</li> <li>• Screen for STDs as appropriate to setting                             <ul style="list-style-type: none"> <li>– nonclinical settings: client-collected specimens or venous blood (by trained phlebotomist)</li> <li>– clinical settings: patient- or provider-collected specimens</li> </ul> </li> <li>• For PLWH who report symptoms suggestive of an STD or recent sex partners who were treated for syphilis, gonorrhea, chlamydia, or trichomoniasis, provide access to presumptive STD treatment according to the latest CDC STD Treatment Guidelines as appropriate to setting                             <ul style="list-style-type: none"> <li>– clinical settings: onsite clinical evaluation (including physical examination and diagnostic testing) followed by immediate presumptive treatment or immediate linkage to such treatment</li> <li>– nonclinical settings: immediate linkage to a health care facility that offers clinical evaluation and onsite presumptive STD treatment</li> </ul> </li> <li>• For PLWH who have positive STD screening tests:                             <ul style="list-style-type: none"> <li>– provide access to STD treatment through linkage within 24 hours to a health care facility that offers onsite STD treatment (including injectable medications) for nonclinical settings or onsite treatment for clinical settings</li> <li>– refer to voluntary HD HIV/STD PS or other trained PS provider</li> <li>– report cases of STD according to jurisdiction requirements and explain that case reporting may prompt health department to offer voluntary, confidential PS</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• At first HIV care visit, provide:                             <ul style="list-style-type: none"> <li>– detailed history of sexual activity, STD, and drug use</li> <li>– physical exam, including oropharynx and rectum</li> <li>– STD screening and diagnostic tests</li> <li>– for persons with sexual or drug-related risk behaviors:                                     <ul style="list-style-type: none"> <li>◆ provide or refer to brief or intensive behavioral risk-reduction interventions</li> <li>◆ refer to voluntary HD HIV PS or other trained PS provider if persons are newly diagnosed with HIV; have evidence of acute HIV infection or high VL; or report new sex partners</li> </ul> </li> <li>– for persons with exam or tests indicative of STD:                                     <ul style="list-style-type: none"> <li>◆ provide onsite treatment</li> <li>◆ advise to return 3 months after STD treatment for retesting</li> </ul> </li> </ul> </li> <li>• At follow-up HIV visits, provide                             <ul style="list-style-type: none"> <li>– a review of history since last visit</li> <li>– STD screening (at least annually or more often if needed)</li> <li>– services relevant to history, examination, and test results</li> </ul> </li> </ul>

Reproductive health and pregnancy services	Additional recommendations and strategies for providers in health care facilities (clinical providers) <sup>C</sup>
<ul style="list-style-type: none"> <li>• Assess pregnancy status (self-report or testing as appropriate to setting)</li> <li>• Assess reproductive plans of women and men with HIV and their partners</li> <li>• Inform PLWH about                             <ul style="list-style-type: none"> <li>– role of ART in decreasing sexual and perinatal transmission</li> <li>– availability of PrEP and nPEP for uninfected partners when clinically indicated to decrease risk of HIV acquisition</li> </ul> </li> <li>• Refer PLWH who wish to conceive to providers skilled in reproductive health counseling for PLWH</li> </ul>	<ul style="list-style-type: none"> <li>• Offer ART to decrease sexual and perinatal transmission</li> <li>• Inform women with HIV who are using or considering using ART and hormonal contraception at the same time about possible drug interactions that might influence the efficacy of the ART or the hormonal contraception</li> <li>• Provide or make referral for                             <ul style="list-style-type: none"> <li>– additional preconception information and counseling for PLWH who are considering conception</li> <li>– information about conception methods for members of HIV-discordant couples that reduce the risk of sexual transmission of HIV or, should pregnancy occur, perinatal HIV transmission</li> </ul> </li> <li>• Offer PrEP or nPEP to referred uninfected partners when clinically indicated</li> </ul>

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**Individual, social, structural, ethical, legal, and policy context of prevention**


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- Offer periodic HIV testing to uninfected members of HIV-discordant couples
- Promptly link pregnant women with HIV to providers specializing in HIV care for pregnant women
- Support adherence to ART during prenatal and postnatal periods
- Inform and educate pregnant women with HIV about
  - risks of perinatal and sexual HIV transmission
  - postpartum contraception services
- Advise women with HIV not to breastfeed (even if taking ART) and provide information about how to obtain formula
- Inform uninfected pregnant women with partners with HIV that HIV testing is recommended for all pregnant women and provide information about the test
- Offer ART regardless of maternal CD4+ T cell count
- Inform women of delivery options that can decrease risk of perinatal transmission
- Discuss risks and benefits of Cesarean delivery and recommend scheduled Cesarean delivery at 38 weeks gestation if viral suppression is suboptimal near delivery
- Do not use invasive prenatal and intrapartum procedures unless women have started effective ART regimens and are, ideally, virally suppressed at the time of the procedures

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**Services for other medical and social factors that influence HIV transmission**


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- Establish an infrastructure to provide specialty services onsite or through referrals to other agencies or providers
- After helping PLWH to start or resume HIV care, offer or provide referrals to specialty services according to the person's unique needs

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**Quality improvement and program monitoring and evaluation**


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- Engage in quality improvement activities that focus on improving the delivery and quality of HIV care and prevention services to PLWH
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*Note.* ART = antiretroviral therapy; PLWH = people living with HIV infection; PrEP = pre-exposure prophylaxis; nPEP = nonoccupational postexposure prophylaxis; STD = sexually transmitted disease; PS = partner services; HD = health department; CDC = Centers for Disease Control and Prevention.

<sup>a</sup>The phrasing of recommendation statements in Table 1 differs slightly from the phrasing of recommendation statements listed in the 2014 guideline to enable brief, tabular format. These are selected recommendations and strategies for providers in health care facilities (clinical providers) or community organizations (nonclinical providers); recommendations for staff of health departments and HIV planning groups can be found in the Summary for health departments and HIV planning groups (CDC et al., 2014d).

<sup>b</sup>This 2014 guideline was based on the 2010 National HIV/AIDS Strategy that stressed linkage to care as soon as possible, but within 3 months of diagnosis. The 2015 NHAS stressed linkage to care within 30 days of diagnosis (The White House Office of National AIDS Policy, 2015).

<sup>c</sup>These recommendations apply only to clinical providers with authority for clinical evaluation and examinations, diagnosis, treatment, and prescribing, including advanced practice nurses in the jurisdiction.

<sup>d</sup>The *Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents* can be accessed at <https://aidsinfo.nih.gov/guidelines/html/1/adult-and-adolescent-treatment-guidelines/0> (Panel on Antiretroviral Guidelines for Adults and Adolescents, 2014).

**Table 2****Training Opportunities and Implementation Resources**


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Training opportunities, many of which offer CE units:

- Archived webinars conducted by ANAC, including, “Recommendation for HIV Prevention with Adults and Adolescents with HIV in the US: The Pivotal Role of RNs and Advanced Practice RNs” produced in collaboration with CDC/DHAP: <http://www.nursesinaids.org/i4a/pages/index.cfm?pageid=4712>
- AIDS Education and Training Centers: <http://www.aidsctc.org/resources>
- National Network of STD/HIV Prevention Training Centers: <http://nnptc.org/>
- HRSA Target Center Technical Assistance Resources, Guidance, Education, & Training (The TARGET) Center: <https://careacttarget.org/>
- HRSA/CDC Training, Technical Assistance and Collaboration Center for Prevention For Care Project in Federally Funded Community Health Centers (<http://p4chivtac.com>) providing HIV training, technical assistance, and collaboration designed to support state health departments and health centers in workforce and infrastructure development, as well as service delivery activities (see Partnerships for Care): <http://www.cdc.gov/hiv/prevention/demonstration/p4c>
- HIV Treatment Works Campaign: <http://www.cdc.gov/actagainstaids/campaigns/hivtreatmentworks/index.html>

Implementation resource materials. Decision-support tools, flow diagrams, checklists, fact sheets for providers, patients, and clients, and packages for implementing evidence-based interventions can be found at:

- CDC Prevention with Positives Resource Center: <https://www.cdc.gov/hiv/guidelines/>
- CDC Effective Interventions: <http://effectiveinterventions.cdc.gov/>
- CDC Capacity Building Resource Library: <http://cbaproviders.org>
- CDC Prevention Is Care Campaign for Medical Providers: <http://www.cdc.gov/actagainstaids/campaigns/pic/index.html>
- CDC Data to Care Project: <http://effectiveinterventions.cdc.gov/en/HighImpactPrevention/PublicHealthStrategies/DatatoCare.aspx>

Summaries of experience in implementing these recommendations in clinical and nonclinical settings

- Enhanced Comprehensive HIV Prevention Planning: <http://www.cdc.gov/hiv/prevention/demonstration/echpp>
  - Care and Prevention in the United States: <http://www.cdc.gov/hiv/prevention/demonstration/capus>
  - Partnerships for Care: <http://www.cdc.gov/hiv/prevention/demonstration/p4c>
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*Note.* CE = continuing education; ANAC = Association of Nurses in AIDS Care; CDC = Centers for Disease Control and Prevention; DHAP = Division of HIV/AIDS Prevention; HRSA = Health Resources and Services Administration.