



An HIV Medication Adherence e-Learning Toolkit Strategies to Improve Health Outcomes and Reduce the Risk of HIV Transmission

Adherence to anti-retroviral therapy (ART) is critical to the success of HIV treatment and treatment as prevention. However, the benefits of ART can be realized only by those individuals who are tested, diagnosed, timely linked to medical care, and start and adhere to ART to achieve viral suppression. In April 2011, eight individual and group-level evidence-based interventions to support HIV medication adherence were reviewed and identified as “good-evidence” by the Centers for Disease Control & Prevention (CDC) Prevention Research Synthesis Project. The Capacity Building Branch selected four of the eight medication adherence interventions to be translated into an e-learning training toolkit for clinical and non-clinical HIV providers who serve persons living with HIV (PLWH). A fifth intervention, Pager Messaging, was selected to be updated to a mobile application (app). These adherence interventions showed efficacy in improving either medication adherence and/or viral load among either ART naïve or ART experienced patients.

Table 1. Brief description of the 4 evidence-based HIV medication adherence interventions selected for translation into e-learning trainings for HIV providers.

Intervention Name	Target population	Description	Duration
Project HEART* Helping Enhance Adherence to Antiretroviral Therapy	ART-naïve or changing ART regimen	Social support/problem-solving, individual/dyadic intervention delivered before and in the first 2 months after the patient initiates ART. A patient-identified support partner is required to attend at least 2 of the first 4 sessions. The intervention includes problem-solving activities to identify and address barriers. This information is used to develop an individualized adherence plan (IAP) for the patient.	Five 1 ½ to 2 hr. sessions and 5 phone calls over 6 months
Partnership for Health – Medication Adherence	ART-experienced	Brief (3-5 minute), clinic-based individual-level, provider-administered intervention emphasizing the importance of the patient-provider relationship to promote healthy patient behaviors. The intervention includes adherence messages delivered to the patient during routine medical visits and the use of posters and brochures conveying the partnership theme and ART adherence messages.	3 to 5 minute session at each clinic visit
Peer Support	ART-experienced or ART- naïve	Individual-and group-level intervention, where HIV-positive individuals, currently adherent to ART serve as peers, who provide medication-related social support through group meetings and weekly telephone calls to ART patients.	Six twice-monthly 1-hour group meetings and weekly phone calls over 3 months
SMART Couples Sharing Medical Adherence Responsibilities Together	HIV-discordant couples, with poor medication adherence in the HIV-positive partner	A couple-level intervention administered to discordant couples that addresses adherence to ART and safe sex behaviors within the couple dyad, fostering active support of both individuals.	Four 45-60 minute sessions over 5 weeks

*The first 2 sessions substitute as pre-medication and adherence counseling and are a routine part of HIV care.

The 4 adherence strategies can be delivered by a variety of HIV providers, including medical providers, licensed social workers, HIV case managers, health educators and/or peers.

The following table provides examples of provider types and settings best suited for each strategy.

Table 2. HIV Adherence Strategy by Appropriate Provider Type and Settings

Adherence Strategy	Appropriate Provider Type	Appropriate Settings
Project HEART	<ul style="list-style-type: none"> • Health educator • Medical provider (e.g., physicians, nurse, nurse practitioner, physician assistant) • HIV case manager • Social worker 	<ul style="list-style-type: none"> • Community Health Centers • Community-based Organizations or AIDS Service Organizations with a strong partnership to an HIV clinic • HIV primary care out-patient clinic
Partnership for Health – Medication Adherence	<ul style="list-style-type: none"> • Medical provider 	<ul style="list-style-type: none"> • Community Health Centers • HIV primary care out-patient clinic
Peer Support	<ul style="list-style-type: none"> • Trained peers and supervisory program staff 	<ul style="list-style-type: none"> • Community Health Centers • Community-based Organizations or AIDS Service Organizations with a strong partnership to an HIV clinic • HIV primary care out-patient clinic
SMART Couples	<ul style="list-style-type: none"> • Medical provider • Health educator • Social worker 	<ul style="list-style-type: none"> • Community Health Centers • Community-based Organizations or AIDS Service Organizations with a strong partnerships to an HIV clinic • HIV primary care out-patient clinic



Every Dose Every Day Mobile Application

The EVERY DOSE EVERY DAY (E2D2) mobile application (app) builds on the Pager Messaging intervention by assisting people living with HIV with dose, refill, and medical appointment reminders. Additionally, the app features lab tracking (e.g., viral load and CD4 count) to help the user understand how their HIV treatment regimen supports better health. The user may input important contact information of their health care team. There is also a feature that allows the user to upload a “Reason Photo”, which can serve as an inspirational reminder of why taking your HIV medication every day is important. The user may log reasons for missing a dose and information about a particular dose in the “dose notes” feature for their medications. Dose notes may include information about side effects or whether a medication needs to be taken with or without food. This information may be useful in discussing adherence challenges with their medical provider. The mobile app can be used alone or in combination with any of the 4 medication adherence strategies.

In 2014, CBB will launch this e-learning training toolkit for HIV providers on www.effectiveinterventions.org. The interactive and media rich training will include the following topics:

- Benefits of ART adherence
- Overview of each adherence strategy
- Theoretical basis
- Key players and staff roles and responsibilities
- Overview of session content
- Strategy in action (e.g., videos of sessions)
- Integrating the strategy into practice
- Additional resources (e.g., downloadable tip sheets, comprehensive implementation materials, consumer materials to support adherence, and information about requesting technical assistance and capacity building)

For additional information on CDC's medication adherence interventions, please see the Compendium of Evidence-Based HIV Behavioral Interventions: Medication Adherence Chapter at <http://www.cdc.gov/hiv/topics/research/prs/ma-chapter.htm>.