

Risk Reduction (RR) Chapter Background



The U.S. Centers for Disease Control and Prevention (CDC) recommends health departments and community-based organizations implement evidence-based interventions (EBIs). Initiated in 1996, the CDC's HIV [Prevention Research Synthesis \(PRS\) Project](#) systematically reviews and summarizes the cumulative body of HIV-prevention literature to identify EBIs, best practices and public health strategies for reducing HIV transmission and infection.

The PRS team conducts on-going systematic reviews (starting with the [Risk Reduction \(RR\) Efficacy Review](#) in 1996) to identify EBIs that show evidence of efficacy in changing sex or drug-injection behaviors that impact HIV-transmission risk. There are multiple ways to reduce the risk of acquiring or transmitting HIV:

- Using medicines to treat HIV ([Treatment as Prevention or TasP](#))
- Using medicines to prevent acquisition of HIV ([pre-exposure prophylaxis or PrEP](#))
- [Reducing sex and drug risk behaviors](#) (e.g., condom use, clean needle use, testing for HIV/STIs/Hepatitis)

The CDC stresses that some options are more effective than others and combining prevention strategies may be even more effective. See [here](#) for more information on the effectiveness of different strategies at preventing HIV acquisition or transmission. This systematic review focuses on reducing sex and drug risk behaviors. PRS conducts other systematic reviews focusing on [linkage to, retention in, and re-engagement in HIV care](#), [HIV medication adherence](#), [structural interventions](#), and [PrEP](#).

Each eligible study is evaluated against *a priori* criteria to assess the risk of bias and strength of findings. The first PRS **Risk Reduction (RR)** efficacy review ([CDC, 1999](#)) was based on the original criteria used for the [Compendium of HIV Prevention Interventions with Evidence of Effectiveness](#). In 2004, to reflect the scientific progress in the field and to focus on those interventions with the strongest evidence of efficacy, PRS strengthened its criteria for identifying evidence-based, individual-, group-, and couple-level (ILIs/GLIs/CPLs) behavioral risk reduction interventions. In 2008, PRS developed specific efficacy criteria for identifying evidence-based, community-level interventions (CLIs) because most CLIs have study and design characteristics that do not lend themselves to evaluation with the efficacy criteria for ILIs/GLIs/CPLs. Both the 2004 and 2008 revisions to the efficacy criteria were developed as the result of multiple consultations with methodologists and HIV-prevention researchers. The [CLI efficacy criteria](#) and the [ILI/GLI/CPL criteria](#) both focus on quality of study design, quality of study implementation and analysis, and strength of evidence of efficacy. EBIs are classified as either Best- or Good-Evidence.

Starting in 2015, PRS narrowed its focus to evaluate only interventions for priority populations:

- People with HIV (PWH)
- Men who have sex with men (MSM)
- Transgender persons
- People who use drugs (PWUD)
- Black or African American women (added in 2022)

- Youth (added in 2023)

These priority populations are determined by the CDC. In conjunction with this effort, interventions that are more than 10 years old and focus on a non-priority population are archived. See the [Archived Interventions](#) page for further information.

PRS routinely updates the RR chapter by adding newly identified Best- and Good-evidence EBIs. The dissemination of RR EBIs is a critical part of building capacity among organizations that implement prevention programs for populations at risk for HIV. The intervention packages and training for several EBIs presented in the RR chapter are available at: <https://www.cdc.gov/hiv/effective-interventions/index.html>.

To complement the Best-Evidence and Good-Evidence interventions presented in the RR chapter, the PRS team [publishes systematic reviews](#) which identify factors associated with intervention efficacy for various high-risk groups. These reviews serve as an additional resource for determining what works in HIV prevention.

History of Risk Reduction (RR) Efficacy Review Criteria

Because most community-level interventions (CLIs) have study and design characteristics that do not lend themselves to evaluation with the efficacy criteria for ILIs/GLIs/CPLs, PRS developed efficacy criteria specific for identifying evidence-based CLIs in 2008. These revised criteria were developed as the result of multiple consultations with methodologists and HIV prevention researchers. The CLI efficacy criteria, similar to the ILI/GLI/CPL criteria, focus on quality of study design, quality of study implementation and analysis, and strength of evidence of efficacy. The CLI EBIs are also classified as either best- or good-evidence.

A CLI study is eligible for the efficacy review if it meets the definition of “community” and “community-level intervention study” listed below:

Community – A group of individuals that exists prior to the intervention whose members share one or more common characteristics and a common geographic area and relate with one another in a way that may influence their HIV risk.

- Common characteristic – a shared trait or feature or quality, which may include, but is not limited to, race/ethnicity, culture, religion, social economic status, education level, behavior, identity, customary beliefs or practices, social norms, and other underlying motivators.
- Geographic area – a region, area, or medium (e.g., internet) where people live, congregate, or frequent.

Community-level intervention (CLI) study – An evaluation study of an intervention intended to reduce the HIV risk of an entire community. A CLI study does the following:

- Directly or indirectly influences the knowledge, attitudes, social norms, or behaviors of individuals in the targeted community.
- Provides the intervention where individuals of the community are likely to be; and
- Delivers the intervention broadly (not only to those assessed) and broadly assesses community members (not only those who received the intervention).