



## About Risk

Many biomedical HIV research studies and clinical trials have a substantial focus or component on HIV infection risk. Risk is typically defined as the probability that an individual will acquire HIV infection over time.

Proximal factors known to create or enhance risk of HIV exposure and acquisition include:

- Condomless sex with a partner whose HIV status is unknown or serodiscordant in the absence of biomedical prevention (e.g. Pre-exposure prophylaxis [PrEP], treatment as prevention [TasP])
- Injecting drug use with shared equipment in the absence of biomedical prevention

These HIV transmission risk behaviors may be further influenced or affected by a wide range of factors operating at multiple levels.

## Risk Assessment

In HIV biomedical research, risk assessment characterizes and documents the types and frequencies of risk factors that increase (or decrease) the likelihood of HIV exposure and acquisition for a given individual or population.

Assessing risk involves the use of different tools that, over time, have been shown to reliably generate data which are then subjected to appropriate analytic methods. The result is a measure of the risk (harm or benefit) of HIV exposure or acquisition associated with the measured factors. Examples include:

### Data Collection Tools

- Questionnaires/Surveys (e.g. face-to-face, computer surveys, focus groups)
- Clinical assays (e.g. mucosal, hair, blood)
- Medical history (e.g. STIs)

**Types of Data** - clinical, epidemiological, and behavioral

**Analytic Methods** - qualitative and quantitative

## Multilevel Influences on HIV Risk

Conceptual frameworks and methods are evolving to address biomedical, behavioral, and structural aspects of HIV risk. Proximal risk factors are those that directly affect a person's HIV risk, divided into individual, partner, and structural level factors (detailed in the figure below). Additionally, it is important to investigate potential influences on the proximal risk factors. These influencers may also occur at multiple levels.

To learn more about the full scope of influencers, or for more information on the integration of Behavioral and Social Sciences (BSS) in HIV clinical research,

please visit the NIH website at:

[daidslearningportal.niaid.nih.gov/BSShome](https://daidslearningportal.niaid.nih.gov/BSShome).

