The language in CDC’s September 27, 2017, letter was developed as part of a broad HHS process, which included senior leaders, communicators, and subject matter experts from CDC, HRSA, NIH, OASH, and SAMHSA to review the latest science on viral suppression as an HIV prevention strategy and develop updated messages to effectively communicate these findings in a clear, concise, consistent, and accurate manner. The statement in the letter reflects the fact that there have been no linked infections observed in studies among thousands of sexually active HIV-discordant couples engaging in female-male and male-male sex without a condom or PrEP while the HIV-positive partner is virally suppressed. The term “effectively no risk” was the interim language selected by the HHS work group to represent the estimated risk under optimal circumstances, namely when an HIV-positive individual is taking ART daily as prescribed and then achieves and maintains an undetectable viral load.

It was intended to communicate the findings from these studies, which are based on finite data. Research studies with finite data produce point estimates along with associated confidence intervals describing the precision and uncertainty associated with those estimates. In these studies, the lower bounds of confidence intervals are all zero, but the upper bounds of the confidence intervals are very small but greater than zero, which implies the possibility of a non-zero risk. Although these three studies found no cases of HIV transmission over several thousand years of person time of follow-up, these data can’t statistically rule out the possibility that the true risk is not zero.

We included the update on the scientific data in our letter to help ensure health care and prevention providers, people living with HIV and their partners and the public are informed of the strong evidence for the power of viral suppression as an HIV prevention strategy. Promoting treatment to achieve viral suppression has been one of CDC’s highest priorities for many years. We know, however, that not all of those living with HIV or those who treat it are aware of the effectiveness of treatment in not only protecting health but also preventing sexual HIV transmission. Capitalizing on the power of treatment to achieve and maintain viral suppression is an essential strategy for ending HIV transmission and helping to ensure the health of people living with HIV.

As a next step in the HHS process, CDC is conducting message testing to determine how best to clearly communicate both the science and how to implement this strategy in the real world. It is important to remember that when translating science into practice, the proven theoretical effectiveness of a prevention strategy is often lower due to challenges with implementation. This prevention strategy is contingent on achieving and maintaining an undetectable viral load, and data show that not all HIV-positive individuals on ART are virally suppressed, while even fewer maintain viral suppression over time. Large U.S. studies of HIV-positive persons in care or on treatment find that about two-thirds achieve and maintain viral suppression over twelve to 24 months; this means that about one-third did not maintain viral suppression over one to two years. CDC will continue working to equip providers, those living with HIV, and their partners with the information needed to help HIV-positive individuals successfully maximize this powerful prevention strategy.