**Effectiveness Estimates**

The failure rate ratio is used to measure condom effectiveness. It is calculated by dividing the HIV incidence for always-users by the incidence for never-users. Effectiveness, then, is one minus the failure rate ratio. The rate for always-users comes from the 12 longitudinal samples that provide a homogeneous estimate of transmission (0.9 per 100 person-years; 95% confidence interval, 0.4–1.8). The rate for never-users is more difficult to determine. Estimates of the never-user rate may be obtained from the five longitudinal male-to-female samples (6.8 per 100), the two female-to-male samples (5.9 per 100), the three hemophiliac/transfusion samples (5.6 per 100) or the seven samples that specified the direction of transmission (6.7 per 100; 95% confidence interval, 4.5–9.6).

Depending upon the incidence estimate chosen for the never-users, condom effectiveness is estimated at 86.8% with the male-to-female data used as the denominator, 84.7% with the female-to-male data, and 83.9% with the hemophiliac or transfusion data. Using all of the never-user samples that specified the direction of transmission produces an overall estimate of 86.6%.

Additionally, best-case and worst-case scenarios may be estimated for effectiveness, using the incidence confidence limits.