

Notes for Parenzee case regarding heterosexual transmission

John Kaldor, University of New South Wales

1. Early surveillance case reports of people with AIDS, both male and female, established its sexual transmissibility.
2. Even before the virus HIV was identified, the presence of AIDS in people whose only possible contact was a sexual partner with AIDS, combined with the absence of cases in casual or household contacts of people with AIDS, provided convincing evidence.
3. This evidence demonstrated transmission in both directions by vaginal intercourse, and from male to male in both directions through anal intercourse.
4. The evidence was no weaker than that generally available for other sexually transmissible infections.
5. Even stronger evidence was to emerge later, from various longitudinal study that followed people who were HIV negative, both heterosexual and homosexual.
6. Also many cross sectional studies that showed strong associations between HIV positivity and various types of sexual behaviour.
7. The strongest of the longitudinal studies were the “couples” studies that followed HIV negative people who had HIV positive sexual partners and looked at their rates of newly acquired infection.
8. Most impressive are
 - a. The European couples study in which the rate of new infection decreases in proportion to the frequency of condom use, with no infections being recorded in the “always uses” group of couples.
 - b. The Rakai couples study in which the rate of new infection increases in proportion to the level of virus detectable in the person who is HIV positive at the start of the study.
9. The rate of transmission per sexual contact is not particularly high compared to many other sexually transmissible infections, and has been estimated as being in the range 0.1-2%, depending on the type and context of the contact.
10. Acknowledge that all studies of this kind depended on self-report in regard to participants' exposure history, and in particular the extent of any drug injecting or sexual contacts other than with the primary partner.
11. Acknowledge that two kinds of studies that would be even more definitive have never been done:
 - a. Randomised trial in which people were assigned to have sex on a regular basis either with an HIV positive or an HIV negative partner, and the rate of new infection compared between the two groups. A study of this kind is ethically and practically inconceivable.
 - b. Observational cohorts that compared non-drug using people who had HIV positive partners with those who did not, in regard to the rate of new infection. A study of this kind was seen as unnecessary, as it was understood that the rate of HIV infection in people who had HIV negative partners and did not inject drugs was essentially zero. Scarce research resources were therefore not devoted to following up people in this category.