

Re-used needles not cause of African HIV

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An epidemiological analysis has cast doubt on a theory that most sub-Saharan African HIV cases are transmitted by unsafe medical injections.

The theory posits such HIV cases stem from medical injections performed with re-used needles, rather than by sexual contact.

Led by Katherine French of Imperial College London, the researchers developed mathematical models simulating the two routes of HIV spread. The models tested various assumptions regarding how many unsafe injections and what rates of HIV transmission would be needed to create an HIV epidemic over a 22-year period.

The results did not support the "iatrogenic" theory of transmission since the numbers of unsafe injections and the probabilities of HIV transmission needed to reach the prevalence rates of HIV infection observed in sub-Saharan African nations are "unfeasibly high," French and her coauthors write.

However, the scientists found the assumptions necessary to produce an HIV epidemic through sexual transmission were well within the bounds of plausibility.

The research is detailed in the March issue of the journal *Sexually Transmitted Diseases*.

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