



# Association between HIV-infection and infertility in Rwanda: a case-control study

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# Objectives

- To determine HIV prevalence in infertile women compared to fertile control group
- to examine whether HIV is associated with infertility independent of their common risk factors (high risk sexual behaviour and sexual violence).



# Methods (1)

- Study was conducted in University hospital in Kigali from November 2007 until May 2009.
- Cases were women with history of 1 year infertility
- An unmatched control group of fertile women (defined as women who recently delivered) were sampled from the same geographical area.



## Methods (2)

- Data were collected on demographics, sexual behavior and STIs in the past using a structured questionnaire during face to face interviews
- blood was drawn for HIV testing, HSV serology and syphilis serology.
- A priori confounders were age, marital status, education, income, age at first intercourse, rape, HSV-2 serology, BV, lifetime partners, ever had genital symptoms ,ever separated/divorced



# Results (1)

- 312 infertile women and 278 fertile women were recruited
- HIV prevalence: 32% infertile women, 13% fertile women, crude OR=2.95(1.92-4.51)
- A posteriori confounder was the frequency of spending nights together



## Results (2)

- The OR of the association HIV – infertility adjusted in a logistic regression model including marital status, lifetime sexual partners, ever been separated, HSV-2 serology, bacterial vaginosis and age was 1.86 (1.06-3.09)



# Discussion & Conclusions

- HIV prevalence is high in this urban group of infertile women when compared to fertile women
- HIV remained independently associated with infertility when adjusting for their common risk factors



# Future perspectives

- Further research is needed to elucidate the mechanism by which HIV infection causes infertility
- Testing for HIV is mandatory for couples coming for infertility investigations