## The Impact of HIV/AIDS on Fertility in Sub-Saharan Africa

#### **Protocol for Systematic Review**

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#### HIV/AIDS pandemic:

- -40 million people currently infected worldwide.
- -about 6 out of 10 new infections are in women
- -5000 women are infected with HIV daily.
- -90% of them in developing countries.
- -in Sub-Saharan Africa, 13 women for every 10 infected men.
- -70% of the HIV/AIDS cases in Sub-Saharan Africa.

#### HIV/AIDS effect:

- -increased morbidity rates.
- -higher infant, child and adult mortality.
- -dropping life expectancy.
- -changing the demographic structure.

#### HIV/AIDS and Fertility:

HIV/AIDS influence fertility through proximate determinants, namely; marriage, contraceptives, pregnancy, abortion, breastfeeding, postpartum abstinence and natural fecundity.

#### **Mechanisms for Possible Impacts of HIV/AIDS on Fertility:**

Proximate Determinants of Fertility	Possible Mechanism for Impact	Possible Effect on Fertility
Marriage	- Delayed marriage or non-marriage	- Negative
	-Delayed onset of sexual relations	- Negative
	- Reduced premarital sexual relations	- Negative
	- Increased divorce	- Negative
	- Increased widowhood	- Negative
	- Reduced remarriage	-Negative
Contraception	- Smaller desired family size	- Negative
	- Larger desired family size	-Positive
	-Increased condom use	- Negative
	Switching condom	- Positive
Pregnancy and Abortion	- Reduced pregnancy rates	- Negative
	- Increased induced/spontaneous abortion	- Negative
Breastfeeding and Postpartum abstinence	-Reduction in breastfeeding to avoid mother-to-child HIV transmission	-Positive
	- Reduction in postpartum abstinence	- Positive
	- Reduction in breastfeeding and postpartum abstinence due to increased infant mortality	- Positive
Natural Fecundity	- Increased foetal mortality	- Negative
	- Reduced frequency of sexual intercourse	- Negative

- Fertility was lower among HIV-infected women than HIV-uninfected women.
- 0.37% fertility decline for each percentage point of HIV prevalence in Uganda.
- Reduction of 700,000 births in Uganda as a result of reduced fertility in HIV-infected women

## **Objective:**

To review evidence for the effect of HIV/AIDS on fertility in Sub-Saharan Africa.

#### Types of studies:

The review will include cross-sectional and cohort studies that examined the effect of HIV/AIDS on fertility through the approximate determinants of fertility.

#### Type of Participants:

Women at reproductive age (WRA).

#### **Outcome Measures:**

- Total fertility rate (TFR),
- Crude birth rate (CBR),
- Contraceptives prevalence rate (CPR).
- Percentage of reduction in fertility for each percentage point of HIV prevalence.

#### Search strategy:

- -Database search (Cochrane database for systematic review, Medline, UNAIDS, AEGIS, WHO, Google, and POPLINE).
- -Web sites of professional associations, research centers, and universities.
- -Manual search.

#### **Inclusion criteria:**

- Studies conducted between 1990-2005,
- Studies examined the association between HIV/AIDS and fertility through approximate determinants of fertility,
- Cross-sectional and cohort studies,
- Social and demographic studies,
- Studies reported in English.

#### **Exclusion criteria:**

- Studies conducted before 1990,
- Studies with no date,
- Clinical trials,

#### Key words for search:

The key words for searching are fertility and HIV/AIDS, HIV-infected women and pregnancy, Sub-Saharan Africa.

## Data collection, analysis and description of the studies:

- Comparative results will be collected and extracted according to the selection criteria.
- Extraction form will be developed to summarize information on title of the study, author, country, period of the study, sample size, methodology, type of the study, and the outcome measures.

### **Time Frame:**

# The systematic review will be done in accordance to the following time frame:

- First two months, searching for published studies
- Third month, testing of inclusion criteria
- Fourth month, extraction of data from research reports
- Fifth month, data analysis
- Sixth and seventh month, preparation of the report.

