
ART-Related Changes in Fertility at the Population Level in rural Malawi, 2003-2013

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BACKGROUND

- Fertility rates are declining in rural Africa
 - Family planning
 - Increased child survival
 - HIV pandemic

In South Africa, the reduction due to HIV was thought to be small and the biggest driver was contraception

In Zimbabwe an estimated 24% of the national decline was attributable to the HIV epidemic

HIV AND FERTILITY

Positive association

- Sexually active women not using condoms are most at risk of HIV acquisition and of pregnancy (if not using any other contraception)

Negative association

■ Social

- Widowhood or reduced chance of marriage
- Choose to have fewer children
- Societal disapproval

■ Biological

- Direct effect
- Other STIs
- General debilitation

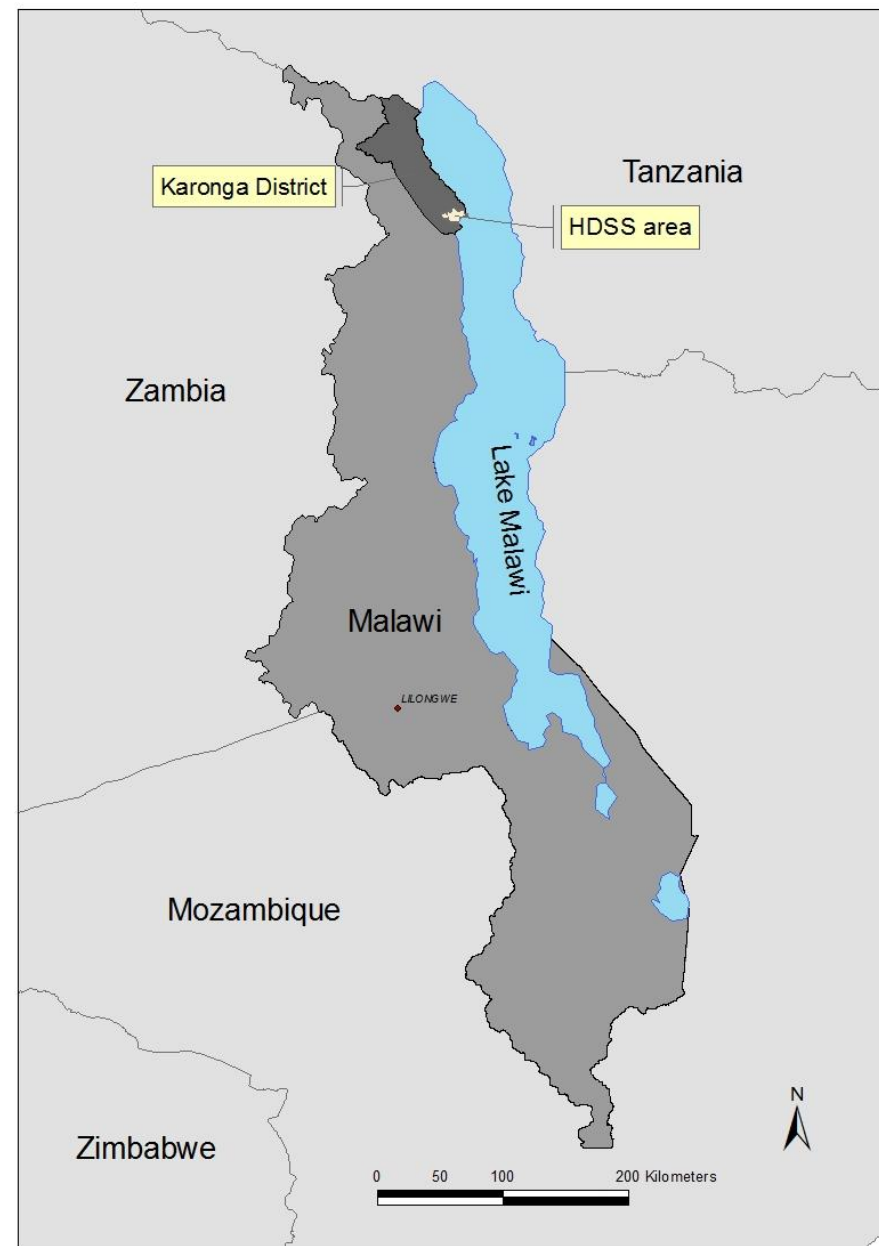
- ↓
- HIV+ women have longer birth intervals, more common miscarriage or birth complications and fewer children overall than HIV- women.

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- Use of ART increases fertility in HIV+ women.

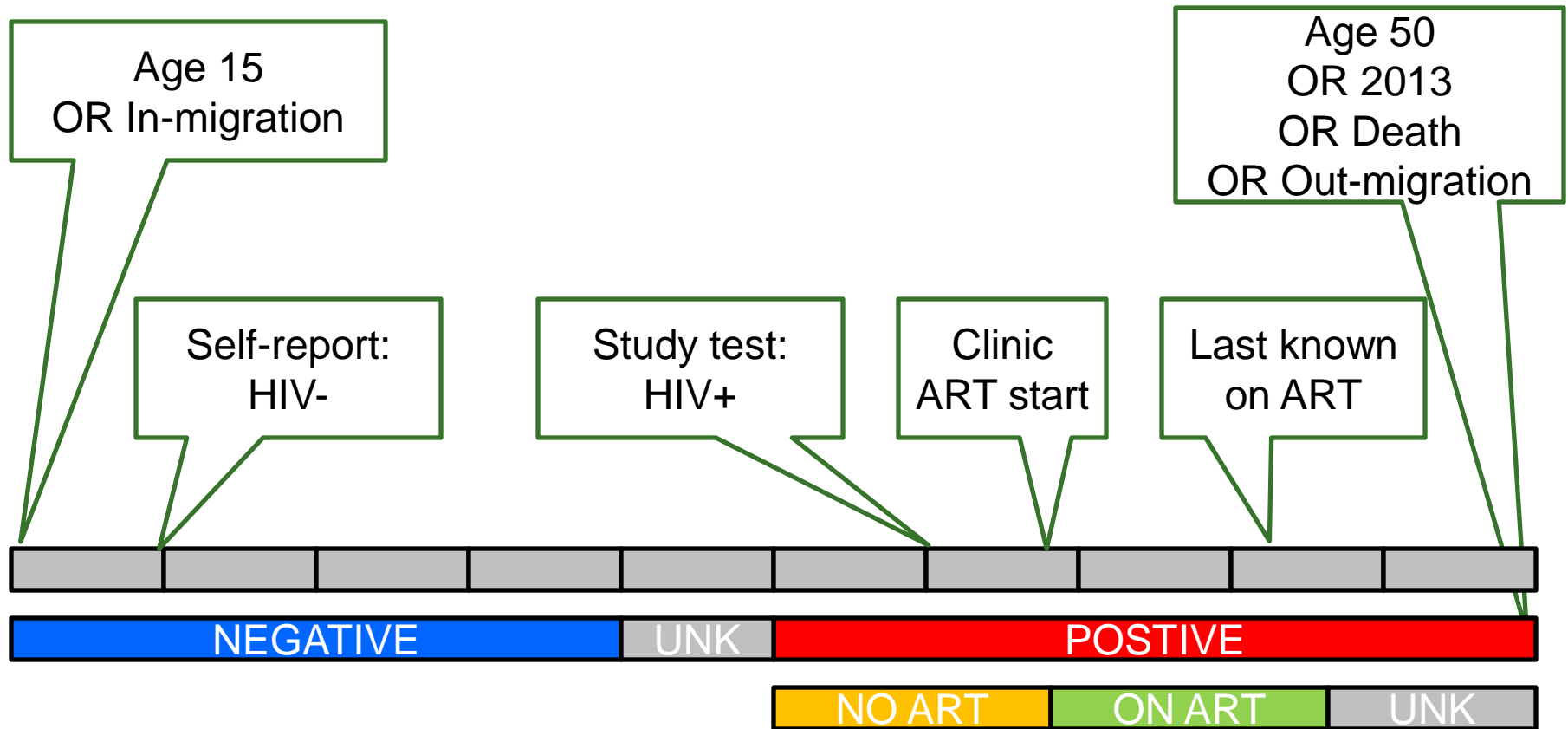
STUDY AREA

- Rural area of Malawi
- Child-bearing expected soon after marriage and relatively large family sizes are the norm
- HIV prevalence estimated to be 6-7%
- ART available in the district in 2005, at the local hospital in 2007 and rolled out to peripheral clinics in 2010.
- Option B+ introduce in 2011: all HIV+ pregnant or breast-feeding women eligible to start life-long ART

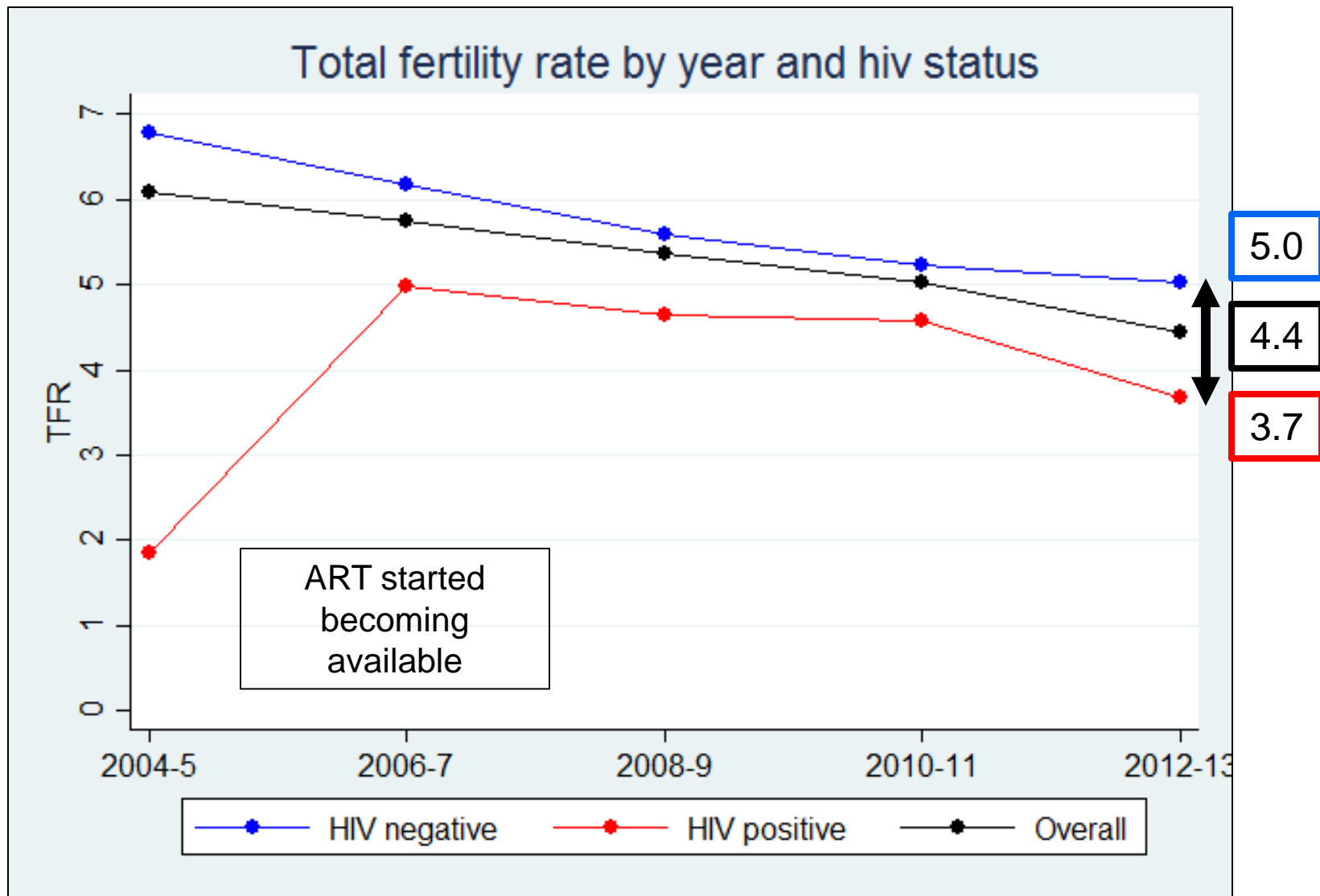
- HDSS of nearly 40,000 since 2002
- Vital events captured monthly & in-/out-migrations annually
- Marital status/ education/ employment annually
- Four HIV serosurveys 2007-2011
- ART users identified and linked to HDSS



ASSIGNING PERSON TIME

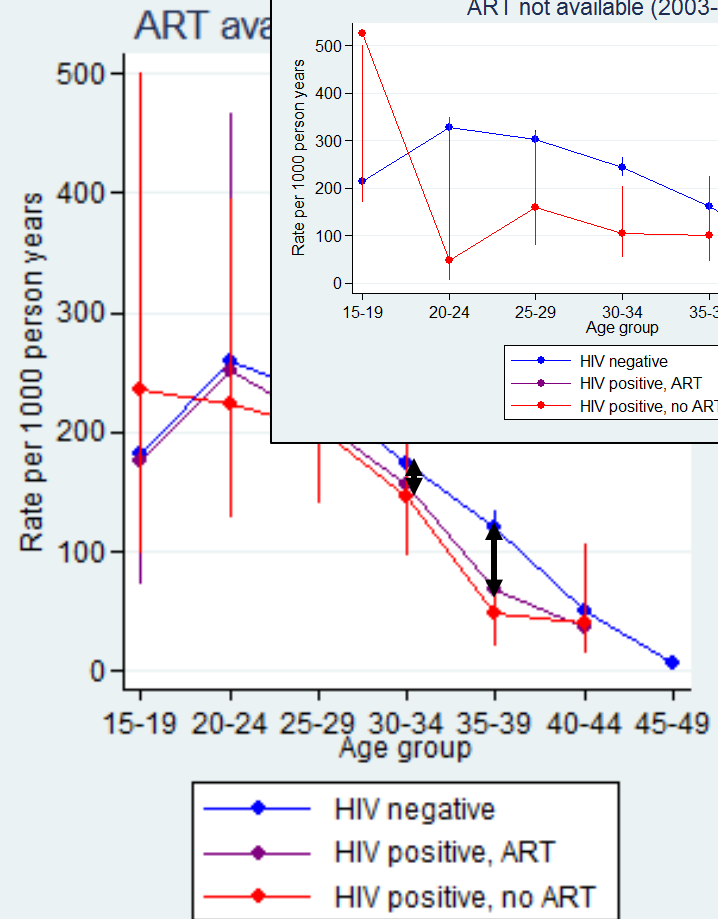
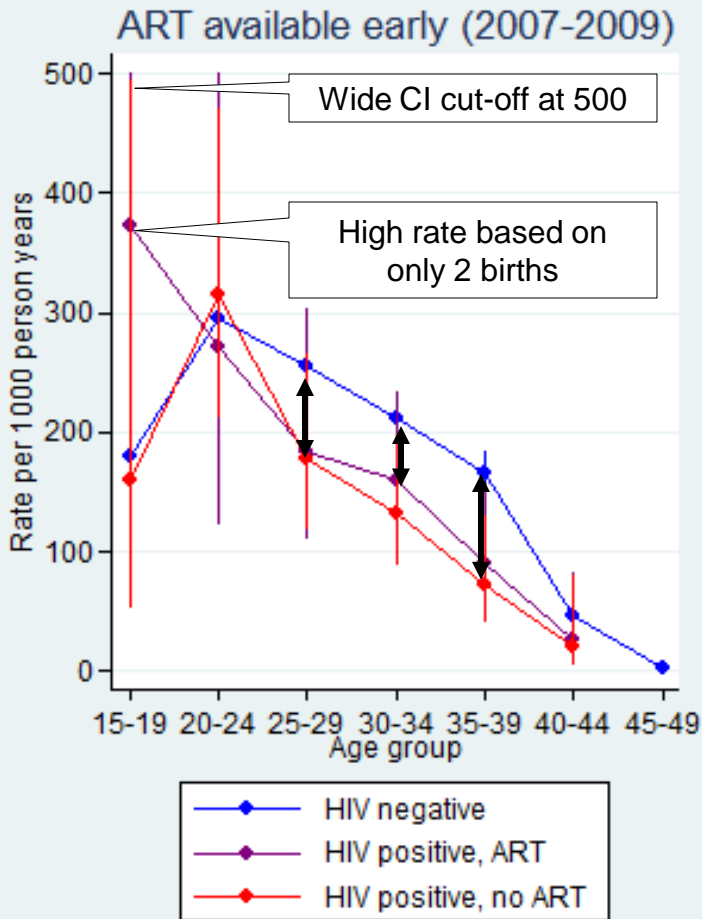


RESULTS

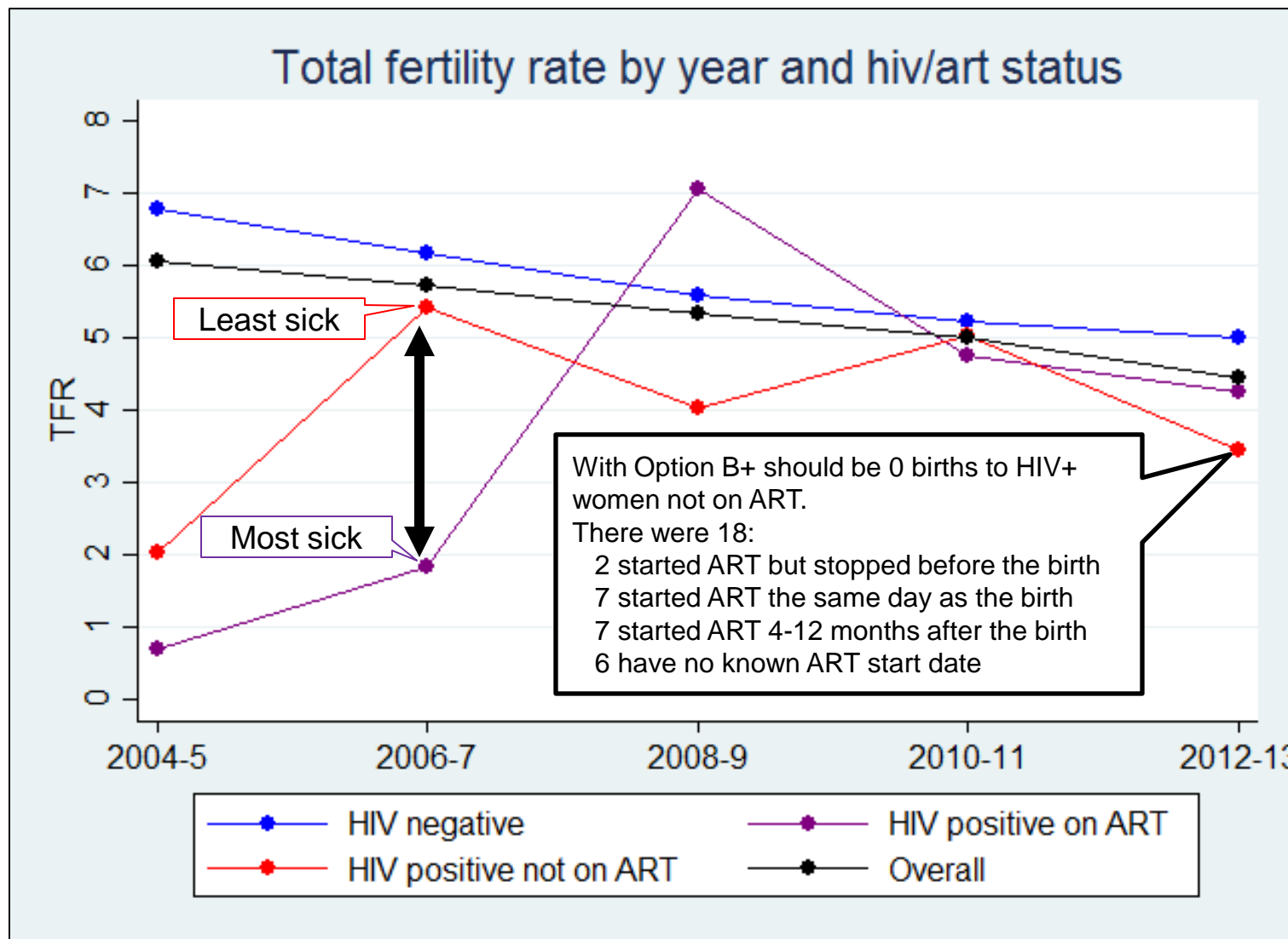


RESULTS

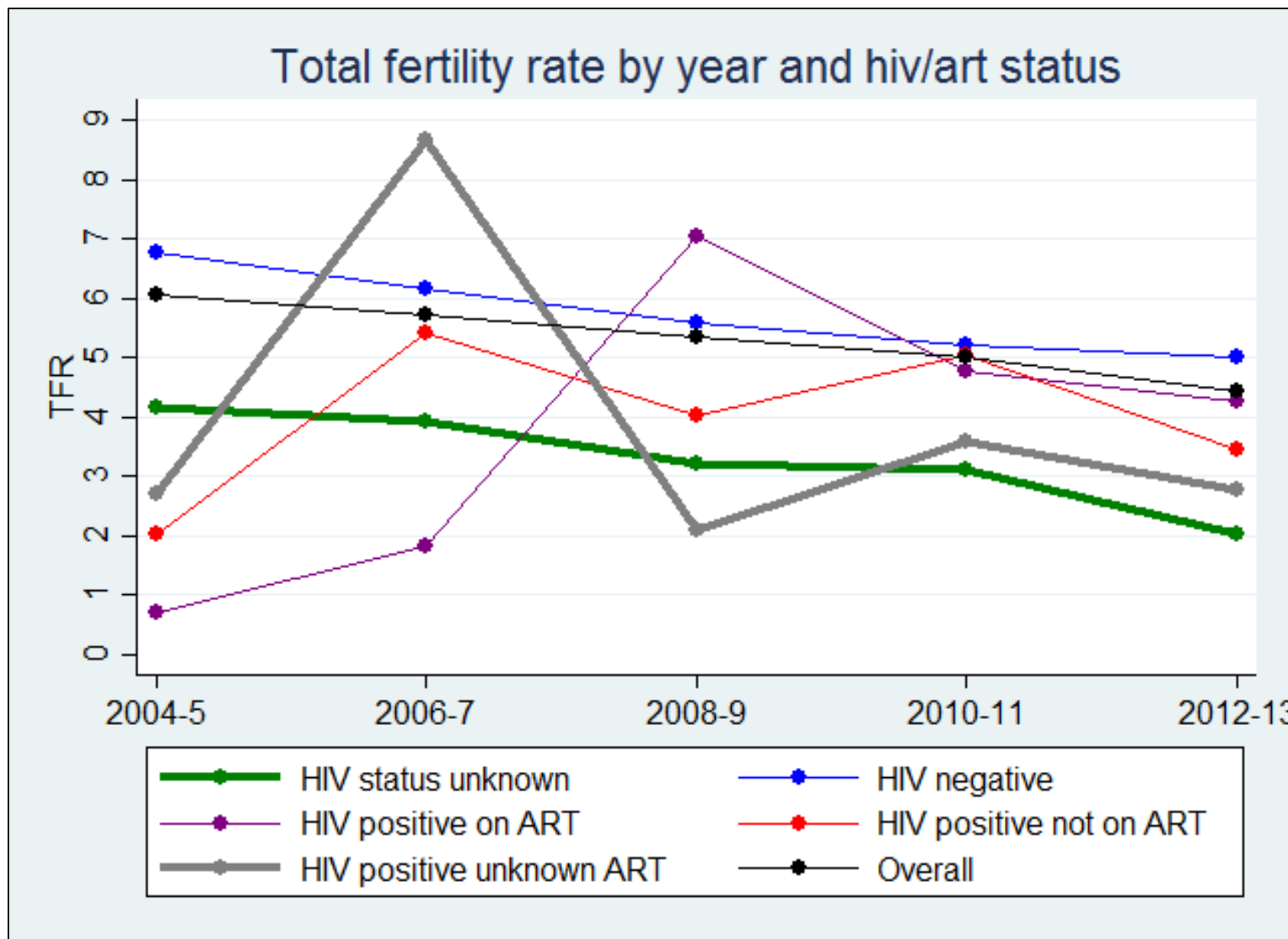
Age-specific fertility rates by HIV/ART status



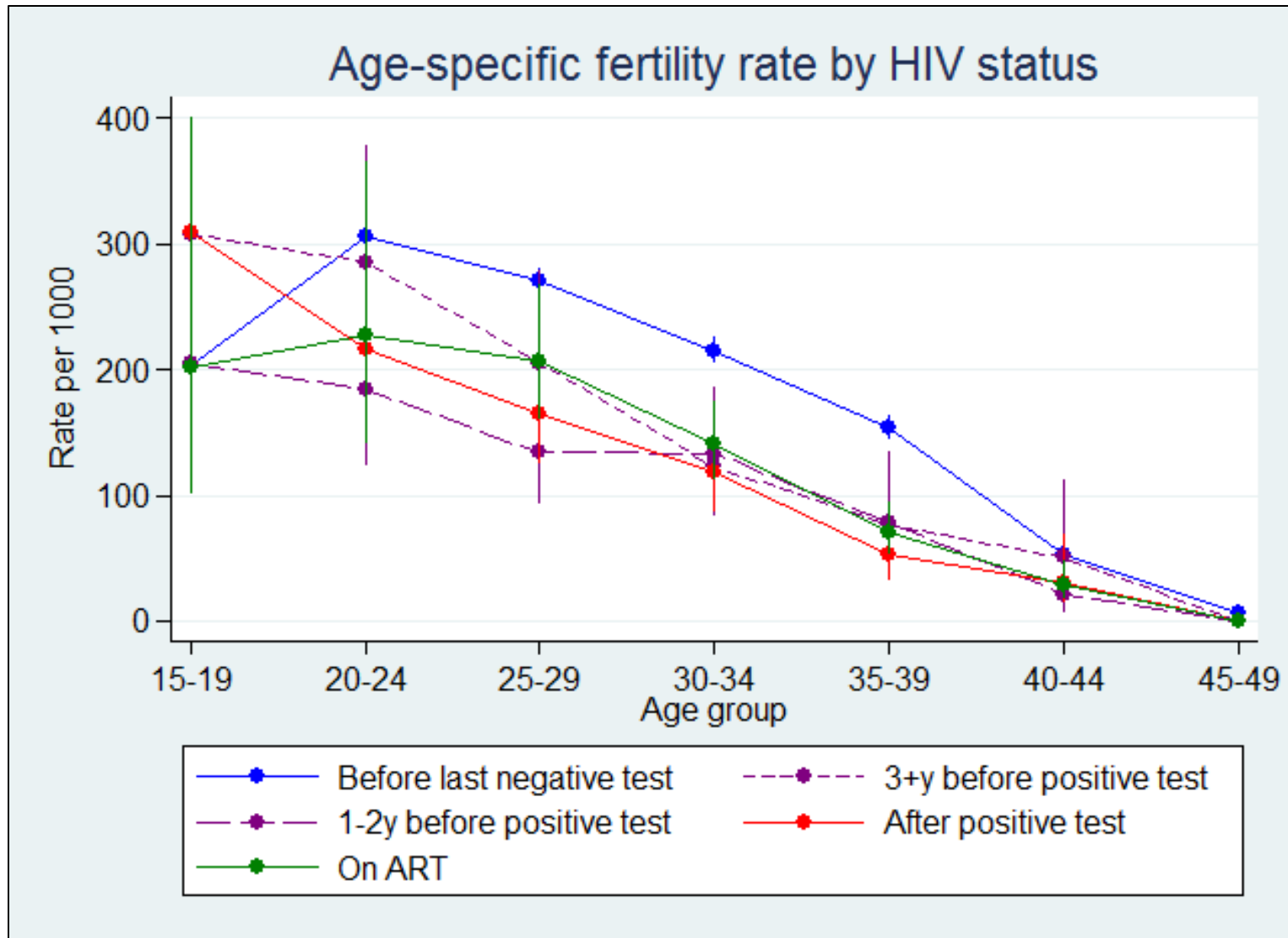
RESULTS



LIMITATIONS



LIMITATIONS



CONCLUSIONS

- **Fertility rate has decreased overall and, although there has been an increase in the fertility rate in HIV positive women corresponding to the availability of ART in the area, up to 2012/13 the fertility rate was still lower in HIV+ women than HIV negative**
- **Fertility rates in women on ART have increased to closer to those of HIV negative women**

IMPLICATIONS

- With ART available can expect fertility in HIV+ women to be similar to HIV- women
- With test & treat policies coming soon more women will be on ART for longer
- May lead to more HIV-exposed infants who require more intense follow-up
- Long term effects of foetal exposure to ART are not known

THANK YOU

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