

Title: Convergence of fertility levels between native South Africans and former refugees of Mozambican origin in, Agincourt, rural northeast of South Africa from 1993-2009.

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Short Abstract

This paper examines fertility levels and trend in Agincourt Health and Socio-demographic Surveillance System (AHSSS). The AHSSS fertility trend is decomposed to quantify the relative contribution of former Mozambican refugees to fertility changes in the area. Further, we examined trend in fertility levels of South African natives and former Mozambican refugees living within the site. The observed fertility levels and trends are then linked to levels and trends of premarital fertility, transition to higher order births, infant mortality, migration pattern, and selected socio-economic factors in each population group and the site at large. Preliminary results show that fertility levels and pattern were quite different in the two populations in the nineties. A stall was observed in the fertility trend in late nineties. The two populations increasingly exhibit similar fertility patterns since 2000. The fertility levels are converging and approaching replacement fertility. This appears to be unique in African fertility history.

Extended Abstract

Studies have documented fertility decline in South Africa and recent research suggested that the decline may have stalled. The high non-marital and adolescent fertility in the country may have contributed significantly to the fertility stall. In this paper, we examine fertility levels and trends in the Agincourt Health and Socio-demographic Surveillance System (AHSSS) to document whether or not fertility decline has stalled as observed at the national level. We also examine trends in age-specific fertility rates of the South African natives and the former

Mozambican refugees (the two main population groups residing at the site) separately. The AHSSS fertility trend was decomposed to quantify the relative contribution of former Mozambican refugees to fertility changes in the area. Further, the observed fertility levels and trends are linked to levels and trends of premarital fertility, transition to higher order births, infant mortality, migration pattern, and selected socio-economic factors in each population group and the site at large.

Study site and population: The Agincourt Health and Socio-demographic Surveillance System (AHSSS) is located in rural northeast South Africa close to the Mozambique border. The population is made up of native South Africans (about two-thirds) and former Mozambican refugees. The Mozambicans, constituting about a third of the population came into South Africa in the mid-eighties during the Mozambican civil war. Despite the offer of voluntary repatriation, the majority of them elected to stay in the area. The MRC/Wits Rural Public Health and Health Transition Research Unit (Agincourt) of the School of Public Health, University of the Witwatersrand has been following up (researching, documenting, analysing, publishing and carrying out policy engagement on important health and socio-demographic issues) the population in the area since 1992.

Analysis methods: We used the classic method of estimating fertility to obtain the total fertility rates of the AHSSS, the South African natives and the former Mozambican refugees between 1993 and 2009. We then decomposed the change in the AHSSS fertility over the stall period (1995-1999) using:

$$\Delta TFR = 5 \sum_x \frac{1}{2} (F_{xsa}^{(t2)} + F_{xsa}^{(t1)}) * (k_{xsa}^{(t2)} - k_{xsa}^{(t1)}) + 5 \sum_x \frac{1}{2} (F_{xmz}^{(t2)} + F_{xmz}^{(t1)}) * (k_{xmz}^{(t2)} - k_{xmz}^{(t1)}) \quad (1)$$

$$+ 5 \sum_x \frac{1}{2} (k_{xsa}^{(t2)} + k_{xsa}^{(t1)}) * (F_{xsa}^{(t2)} - F_{xsa}^{(t1)}) \quad (2)$$

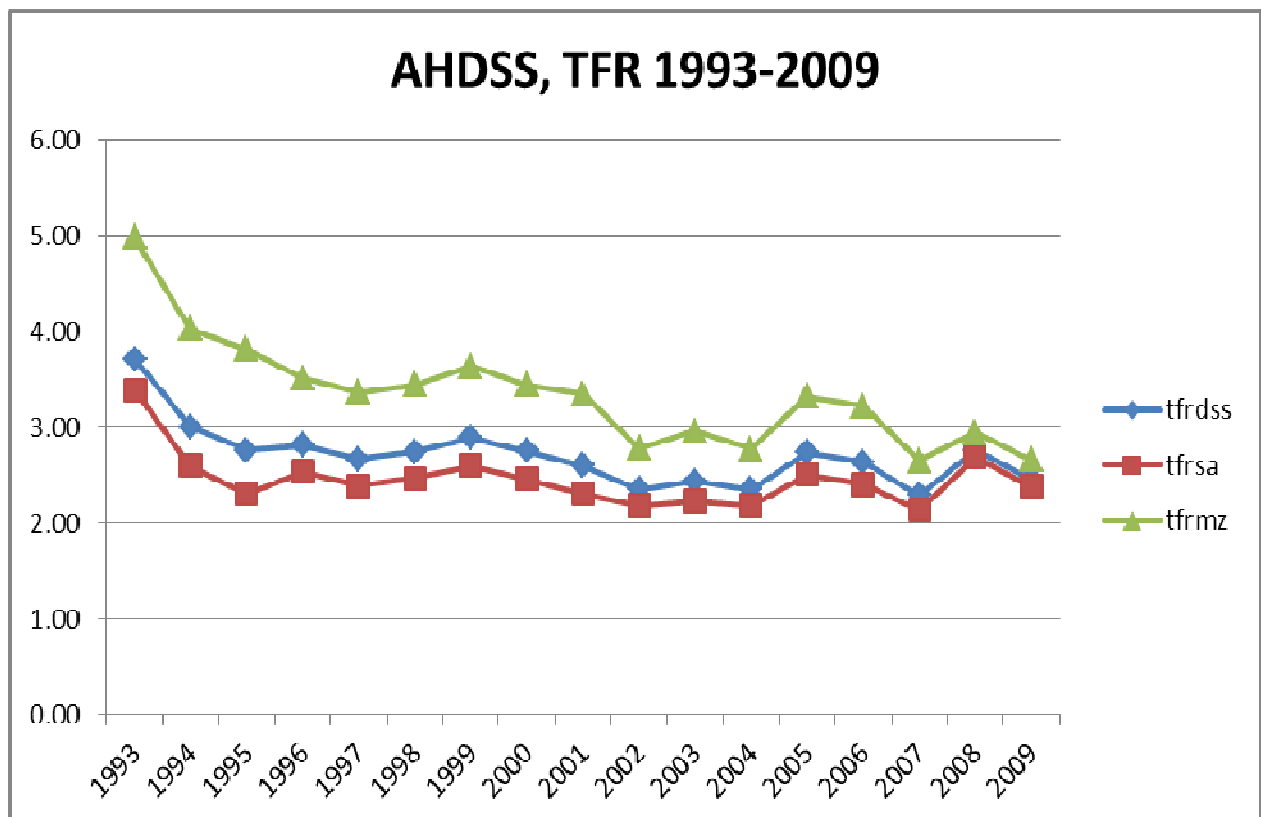
$$+ 5 \sum_x \frac{1}{2} (k_{xmz}^{(t2)} + k_{xmz}^{(t1)}) * (F_{xmz}^{(t2)} - F_{xmz}^{(t1)}) \quad (3)$$

(Adapted from Lindstrom and Woubalem, not dated. Genus, LIX (3-4):147-158)

The levels of premarital fertility, transition to higher order births, infant mortality, migration pattern, proportion poor, proportion with secondary and higher level of education, proportion

married and proportion in labour force over the period examined are estimated using standard approved methodologies.

Results: Preliminary findings show that fertility levels and pattern were quite different in the two populations during the 1990s. A stall was observed in the fertility trend of the AHSSS between 1995 and 1999. The two populations increasingly exhibit similar fertility pattern since 2000 and fertility levels are converging and approaching replacement fertility.



Although there is no consistent pattern in the trend line of the South Africans and the Mozambicans between 1995 and 1999 and they even seem somewhat similar, decomposition of the change in the AHSSS fertility levels between the two periods indicated that the observed stall at the AHSSS level occurred as a result of a rise in the fertility level of resident South Africans over the period.

The disparities found in the levels of premarital fertility, transition to higher order births, infant mortality, migration pattern, proportion poor, proportion with secondary and higher level of education, proportion married and proportion in labour force at the beginning of the observation period are found to be reducing, and the levels of the indicators by the two population groups are converging. This appears to be unique in African fertility history.

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