



Trends and Transitions in the Agincourt Health and Demographic Surveillance Site



**MRC/Wits
Rural Public Health &
Health Transitions Research Unit**



Presentation outline

- Health and demographic surveillance (HDS)
 - Why we do it
 - What it is
- Trends and transitions from the HDSS
 - Population pyramids
 - Fertility
 - Mortality
 - Migration
- Use of results



Position of the Agincourt HDSS site in South Africa



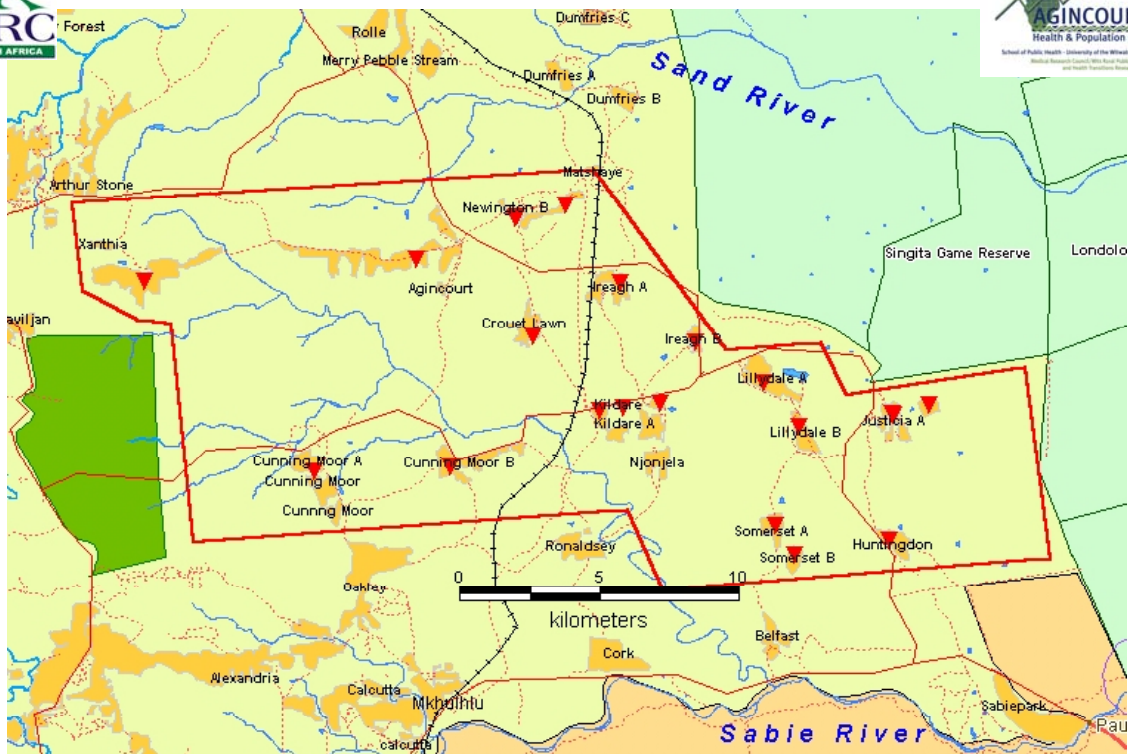
Agincourt site & population: c.2006 / 2007

- 400 sq km
- 21 villages
- ~11,500 households
- ~70,000 people
- Average household size 6.6



- 29% Mozambican
- 69% South African

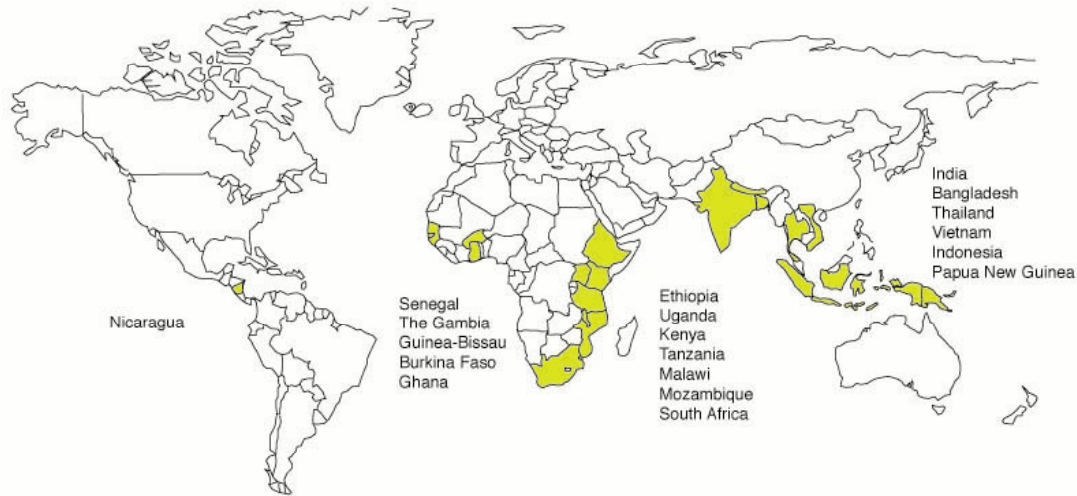
- 1 health centre, 5 clinics with referral to three district hospitals 25-60 km away



Why set up a HDSS?

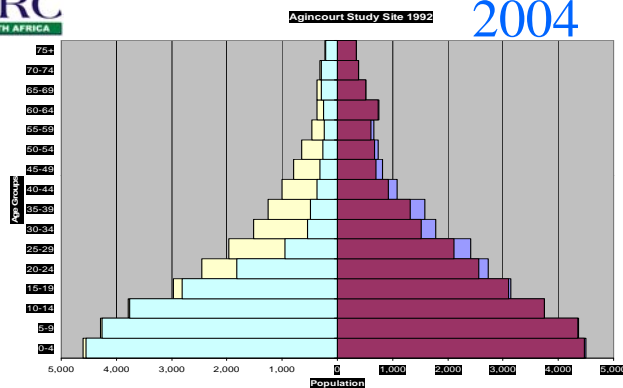
- 1990s
 - little knowledge of populations
 - little understanding of who dies from what and where
 - little information to set priorities, develop systems, monitor programmes
- 1992 established a baseline – building evidence base – pioneered development of sub district health system
- 1997-98 transformed to a site for advanced community-based research

The value of a DSS is cumulative and an increasing number of research and intervention projects are being nested in the site using the HDSS as a baseline and sampling set for research



*Countries with Demographic Surveillance System (DSS)
Field Sites participating in the INDEPTH Network*

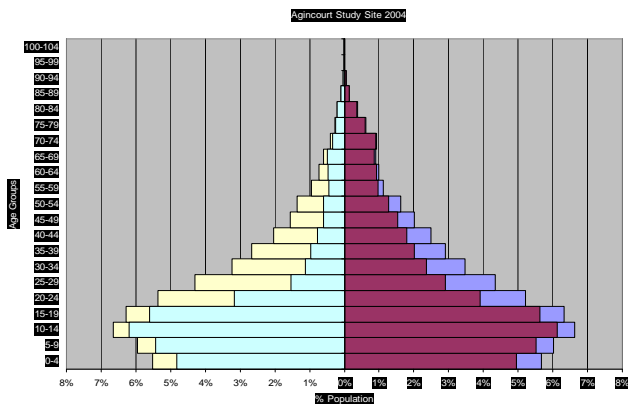
Population pyramids: Agincourt 1992 & 2004



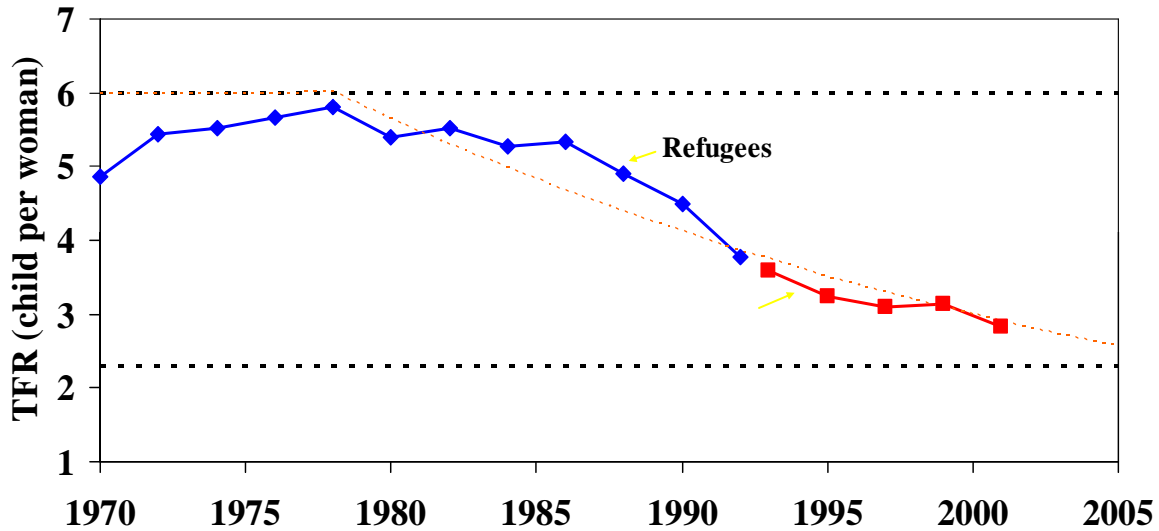
<5: ↓ 16% to 11%

<15: ↓ 44.7% to 36.4%

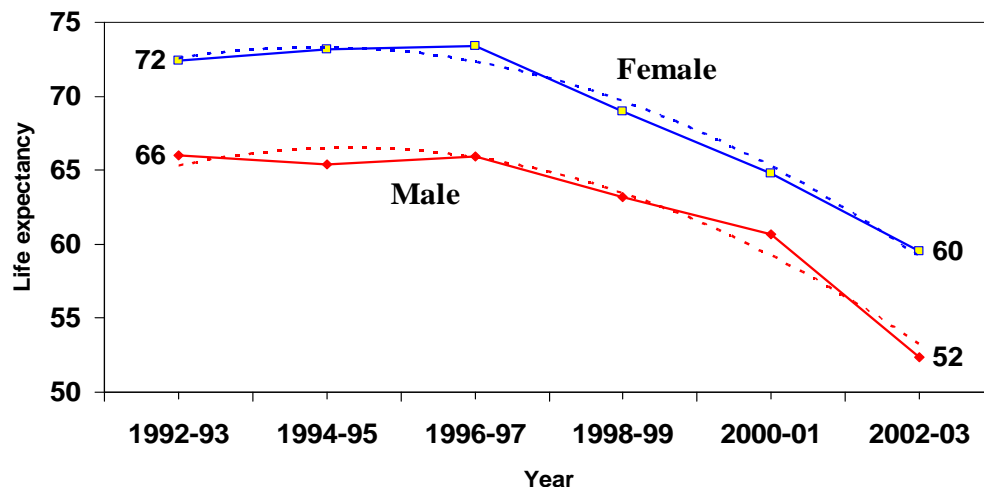
>65: ↑ 3.8% to 4.6%



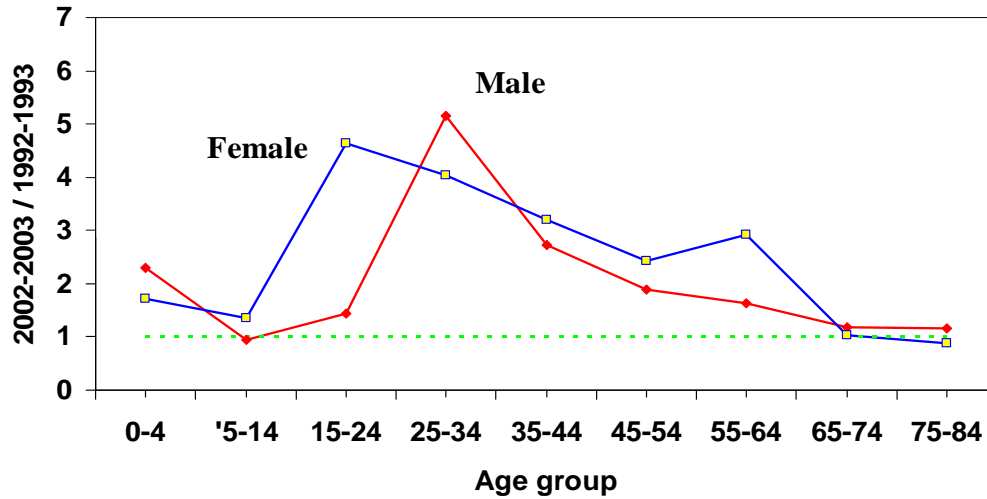
Fertility decline in Agincourt



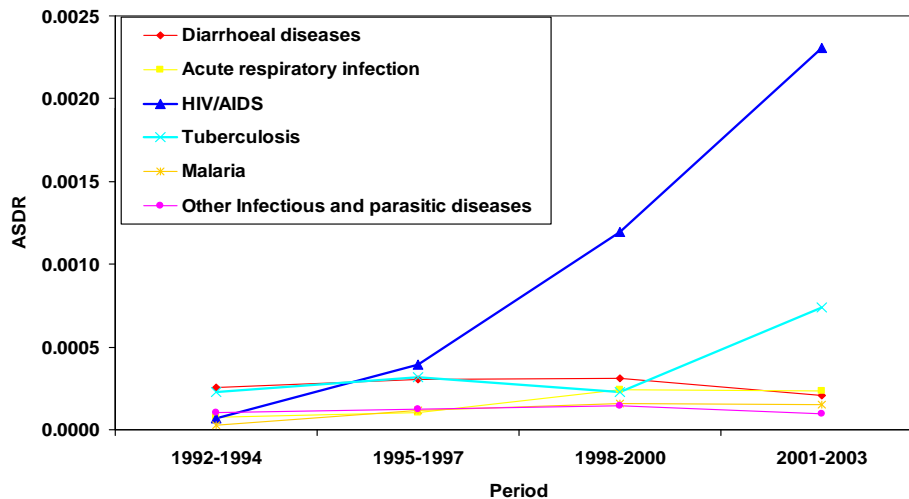
Trends in life expectancy Agincourt 1992-2003



Relative increase in mortality by age, from 1992-1993 to 2002-2003



Trends in cause specific mortality: Infectious & parasitic disease



Child mortality figures

	1992-1993	2003-2004
IMR	16.4 / 1000 live births	51.6 / 1000 live births
U5 MR	35.5 / 1000 person years	83.6 / 1000 person years

Change in proportion of top 3 causes of death over ten years: 0-4 years

Cause	% COD 1992-1994	% COD 2001-2003
HIV/AIDS	1.1	28.8
Diarrhoeal disease	18.8	9.5
Malnutrition	15.9	10.4

Summary of mortality findings

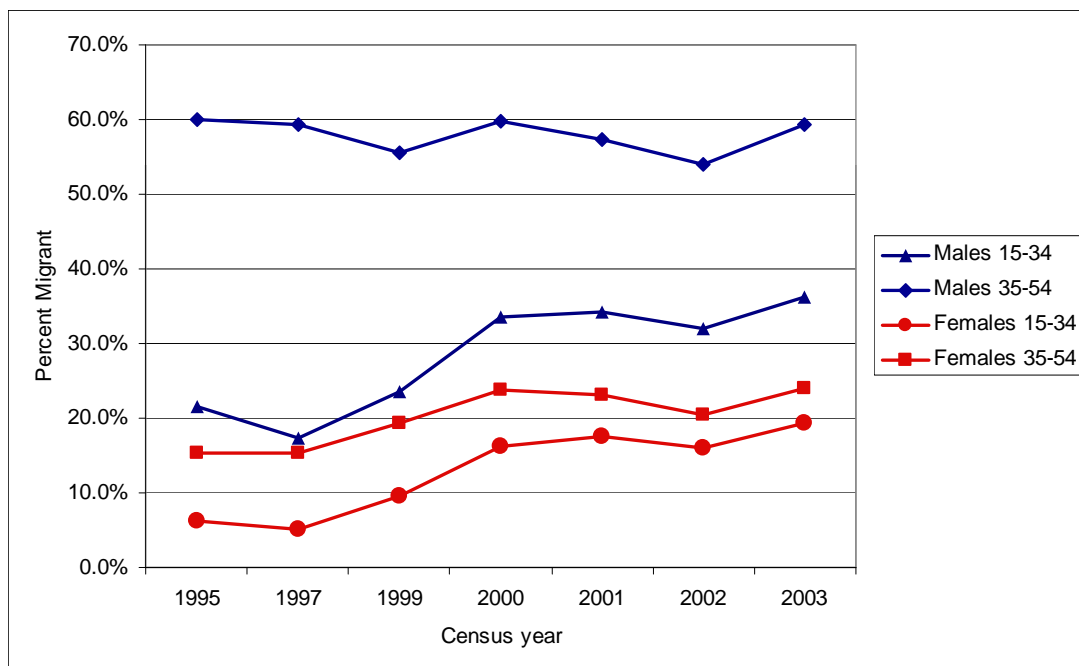
- Mortality transitions well underway within a rural, under-developed population
 - Increasing mortality in children and young adults
 - Aging population
- Triple burden of disease
 - ‘unfinished agenda’ of infectious disease and malnutrition (diarrhea and kwashiorkor)
 - ‘emerging agenda’ of non-communicable disease (particularly circulatory disease) in middle-aged & elderly
 - rapidly escalating HIV/AIDS and tuberculosis

Why migration?

- Migration is a major population process
- Cause and consequence of social change
- Influences
 - distribution of poverty and ill-health
 - how households deal with poverty
 - how social norms and values change in a society.

- Notoriously difficult variable to measure
- It is a process, not an event, that is potentially repeatable
- Different definitions of migration
- Different types of migration with different health and social implications
- Absence of information on temporary migration
 - Only permanent migration measured in population data (census or national household survey data)

Trends in the proportion of temporary migrants: Agincourt 1992–2003

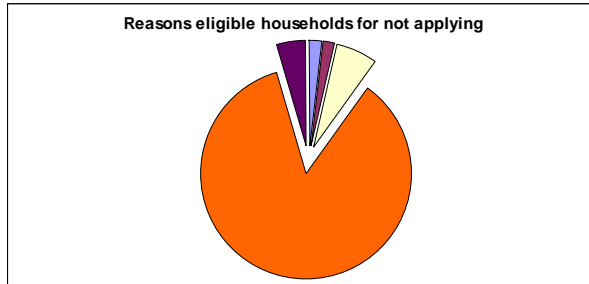


How findings have been used

- Scientific evidence for rapid health and social transition in a rural South African population
 - Empirical understanding of health transition
 - Planning district health system in early 1990s
 - Informed MRC/Wits Unit research portfolio
 - Linkage with Statistics South Africa
 - INDEPTH : multi-country comparative research
 - Understanding Africa: WHO
- Capacity development
 - Postgraduate research training

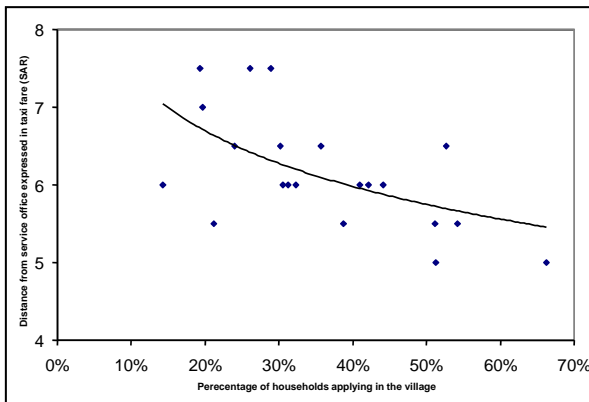
Use of findings (2)

- Evaluation and roll out of interventions
 - VCT, WHO malnutrition guidelines, child support grant
 - Population impact of ART delivery
- Potential interventions
 - Child coping and resilience (school-based)
 - Child growth and development (Bt20)
 - Adult health & function, NCD & cardiovascular risk
 - Developing a rural Phase IIB/III HIV vaccine trial site (Ndlela Vaccine Research Centre)
- Links to local government and community structures
 - OVC task team
 - Information for planning (LINC Office)



Lack of vital documents:

- 86% argued that can not apply because of lacking vital documents
- 6% access problem
- 2% did not know about grants



Access to Home affairs/Social Security offices:

- Inverse relation between distance and application for child care grants

This led to:

- Informational Imbizotjies
- Three Social Security offices in the site
- Home Affairs and Social Security outreach campaigns (8000 people got documents)
- An ongoing and active Municipal OVC Task Team

<http://web.wits.ac.za/Academic/Health/PublicHealth/Agincourt/>

<http://sjp.sagepub.com/content/vol35/issue3/>

