The Agincourt HDSS site, measuring some 420 sq km and extended in 2007 to cover 87,040 people living in 14,382 households and 26 villages, lies in South Africa’s semi-arid rural north-east (figure 1). Part of the Bushbuckridge ‘poverty node’ it has long been a labour sending area with limited employment opportunities despite a population density above 200 persons per sq km. Located only 40km west of the Mozambican border, the area can be regarded as a cross-border region of rural southern Africa – indeed former Mozambicans make up about a third of the Agincourt population.
The Agincourt Health and Socio-Demographic Surveillance System (HDSS) is the research foundation of the MRC/Wits Rural Public Health and Health Transitions Research Unit (Agincourt). Work of the Unit serves to strengthen and extend a high-functioning health and socio-demographic surveillance system – including annual census, vital events and socio-economic updates. This serves as the scientific foundation for a programme of advanced research and intervention studies.

Goal
To make an exceptional scientific contribution to vulnerable communities that
- addresses critical health and development challenges
- enhances the quality of life and productivity of individuals and families
- informs public policy, programmes and practice

Specific Aims
1. **To enhance capacity of the Agincourt research platform**, including the Health and Socio-demographic Surveillance System (HDSS) and data management system, through:
   a. Applying strengthened measurement techniques to: cause-of-death estimation by validated verbal autopsy, full ‘reconciliation’ of in- and out-migration events, and recording of extra-household person-to-person social connections
   b. Instituting a standardized approach to each project, thus facilitating data management and linking of project datasets to the HDSS
   c. Establishing effective, individual-level links between population records and health facility registries in the sub-district (‘clinic-HDSS link’)
   d. Implementing effective policies and methods for requesting/releasing data to students, collaborators and other scientists, including accessible web-based mechanisms.

2. **To support an interdisciplinary research and intervention programme** which will:
   a. Analyse trends describing health, population and social transitions; support simulation of populations affected by sexually transmitted infections to predict the effects of interventions; and interpret divergences from contemporary transition theories
   b. Develop and test interventions targeting critical problems affecting the health and wellbeing of children and adults, under the research themes Child health and development; Adult health and wellbeing; HIV/AIDS and Chronic Care.
   c. Evaluate personal effects and population impacts of decentralised delivery of highly active anti-retroviral therapy (HAART)
   d. Investigate household responses to shocks and stresses
   e. Inform effective responses by the health sector and related development sectors such as education.

Research Themes:
Research at the site encompasses five themes
- Levels, trends and transitions
- Child health and development
- Adult health and wellbeing
- HIV/AIDS and Chronic care
- Household response to shocks and stresses
### Agincourt HDSS site Demographic Characteristics, 2008 - 2010

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Population PY</td>
<td>38989</td>
<td>41296</td>
<td>41641</td>
</tr>
<tr>
<td>Female Population PR</td>
<td>42377</td>
<td>44864</td>
<td>45399</td>
</tr>
<tr>
<td>Total Population PY</td>
<td>81367</td>
<td>86160</td>
<td>87040</td>
</tr>
<tr>
<td>Crude Birth Rate</td>
<td>26.60</td>
<td>26.09</td>
<td>22.02</td>
</tr>
<tr>
<td>Crude Death Rate</td>
<td>12.46</td>
<td>11.21</td>
<td>9.69</td>
</tr>
<tr>
<td>Crude Rate of Natural Increase</td>
<td>14.13</td>
<td>14.88</td>
<td>12.34</td>
</tr>
<tr>
<td>In-Migration Rate</td>
<td>19.32</td>
<td>21.24</td>
<td>17.52</td>
</tr>
<tr>
<td>Out-Migration Rate</td>
<td>19.68</td>
<td>18.28</td>
<td>16.79</td>
</tr>
<tr>
<td>Total Fertility Rate</td>
<td>2.87</td>
<td>2.79</td>
<td>2.36</td>
</tr>
<tr>
<td>Infant Mortality Rate 1q0</td>
<td>54.05</td>
<td>39.66</td>
<td>35.019</td>
</tr>
<tr>
<td>Child Mortality Rate 4q1</td>
<td>26.74</td>
<td>25.22</td>
<td>15.332</td>
</tr>
<tr>
<td>Under Five Mortality Rate 5q0</td>
<td>79.34</td>
<td>63.9</td>
<td>49.81</td>
</tr>
<tr>
<td>Life Expectancy at Birth years</td>
<td>53.96</td>
<td>56.57</td>
<td>60.17</td>
</tr>
</tbody>
</table>

### Agincourt HDSS site Population Pyramid 2010

![Population Pyramid Graph](image)
Funders

**International:** The Wellcome Trust, UK; National Institute on Aging, USA; National Institute of Child Health and Human Development, USA; National Institutes of Health, USA; National Institute of Mental Health, USA; William and Flora Hewlett Foundation, USA; Bill and Melinda Gates Foundation, USA; INDEPTH Network, Ghana. **Local:** Anglo American Chairman’s Fund; Soul City Institute for Health and Development Communication; South African Medical Research Council; South African National Research Foundation; Swiss/SA Joint Research Programme administered by the Council for Scientific and Industrial Research; University of the Witwatersrand.

Collaborators

At **Wits University:** School of Public Health, Centre for Health Policy; Departments of Child Health, Demography and Population studies, Sociology, Computer and Applied Mathematics; Birth to Twenty, African Centre for Migration and Society, Centre for African Ecology, Reproductive Health Research Unit. In **South Africa:** Africa Centre Demographic Information System, University of KwaZulu-Natal; Dikgale HDSS, University of Limpopo; Medical Research Council; Statistics South Africa; Centre for AIDS Research; University of Cape Town. **International:** Africa: INDEPTH Network, Ghana. **UK:** London School of Hygiene and Tropical Medicine, Warwick, Oxford, Cambridge and Edinburgh Universities. **Europe:** Pasteur Institut, France; Umeå University, Sweden; World Health Organization, Geneva; Université Catholique de Louvain, Louvain-la-Neuve, Belgium. USA: Colorado, Brown, Princeton and Harvard Universities; Disease Control Priorities Network, IHME; USA; University of North Carolina; University of San Francisco; HIV Prevention Trials Network.

Publications: 2008- August 2011:

Peer-review journal articles


47. Schatz, E. Reframing vulnerability: Mozambican refugees access to state-funded pensions in rural South Africa. *Journal of Cross Cultural Gerontology* 2009, 24(3):241-58


64. Reniers G. Marital strategies for regulating exposure to HIV. *Demography* 2008, 45(2):417-438

**Book chapters**


**Editorships: books**


**Editorships: journals**

82. Tollman SM, Kahn K, Ng N (eds.), Suzman R (senior ed.). Growing older in Africa and Asia: Multicentre study on aging, health and well-being. Global Health Action (supplement 2) 2010, ISSN 1654-9716

**Dissertations and theses**


84. Tollman SM. Closing the gap: applying health and socio-demographic surveillance to complex health transitions in South and sub-Saharan Africa. Umeå University Medical Dissertations, 2008. ISBN: 978-91-7264-681-0

**Web-based data publishing**


**Letter**

Highlights from Agincourt HDSS

Agincourt census launch August 2010

The Ethiopian HDSS and University visitors to Agincourt, 2010