Manhica HDSS, Mozambique
Brief Introduction to Manhiça HDSS

The Manhiça Health Research Center (*Centro de Investigação em saúde de Manhiça, CISM in Portuguese*) was established in 1996 as part of a joint collaborative program between the governments of Spain and Mozambique. It is represented by the National Institute of Health, the Ministry of Health of Mozambique and by the Spanish Agency for International Cooperation, the Fundació Clinic of Barcelona and the University of Barcelona in Spain. The CISM is one of the few research centers located in rural settings in Africa and has become in recent years one of the leading biomedical research organizations in the continent.

The Manhiça Health Research Centre is located in the district of Manhiça (Maputo Province) in southern Mozambique, 80 kms north of Maputo City, the capital of Mozambique. Manhiça is a little village located in a plain area, surrounded by Inkomati River, and it has an extension of 2.500km² where near 156 000 people live. CISM runs a Demographic and Health Surveillance System (HDSS) in Manhica district. This surveillance started with a baseline census carried out in late 1996, which covered at that time an area of 100 km² and registered a total of 32,500 inhabitants. In 2002 the DSA was extended to include Mantchiana, Palmeira and Ilha Josina in the North of the original area. In January 2005, the locality of Taninga (north of Palmeira and south of Ilha Josina) was incorporated into the DSA, increasing the area for 500 km². In mid 2010, the population under HDSS was about 90,000 inhabitants.

**Mission:**

The mission of CISM is to conduct biomedical research in health priority areas to protect and improve the population’s health.

**Vision:**

The vision is to be a center of excellence in biomedical research that generates evidence to guide public health policy in Mozambique and other countries in the world.
Population pyramid, Manhiça HDSS 2010

Demographic Characteristics 2010

Mortality 2010

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant Mortality Rate (IMR)</td>
<td>58.8 per 1000 live births</td>
</tr>
<tr>
<td>Early neonatal MR</td>
<td>17.2 per 1000 live births</td>
</tr>
<tr>
<td>Late neonatal MR</td>
<td>4.5 per 1000 live births</td>
</tr>
<tr>
<td>Neonatal MR</td>
<td>21.6 per 1000 live births</td>
</tr>
<tr>
<td>Under five mortality (5q0)</td>
<td>100.6 per 1000 live births</td>
</tr>
<tr>
<td>Maternal Mortality Ratio</td>
<td>3.6 per 1000 live births</td>
</tr>
<tr>
<td>Crude death rate</td>
<td>15.3 per 1000 population</td>
</tr>
</tbody>
</table>
Life expectancy 2000-2010

Life expectancy

Mortality 2000-2010

Mortality 2000-2010
Fertility 2010

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abortion Ratio</td>
<td>21.7 per 1000 live births</td>
</tr>
<tr>
<td>Still birth Ratio</td>
<td>24.8 per 1000 live births</td>
</tr>
<tr>
<td>Crude Birth Rate</td>
<td>42.3 per 1000 population</td>
</tr>
<tr>
<td>Total fertility rate</td>
<td>5.5 per woman</td>
</tr>
<tr>
<td>Rate of Natural Increase</td>
<td>27 per 1000 population</td>
</tr>
</tbody>
</table>

Age specific fertility rate per 1000 in 2010

Migration 2010

<table>
<thead>
<tr>
<th>Migration</th>
<th>Rate</th>
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</thead>
<tbody>
<tr>
<td>Crude external out-migration</td>
<td>114.7 per 1000 pyrs,</td>
</tr>
<tr>
<td>internal migration rate</td>
<td>75.7 per 1000 pyrs,</td>
</tr>
<tr>
<td>Crude internal migration rate</td>
<td>69.8 per 1000 pyrs,</td>
</tr>
</tbody>
</table>
Priority Research Areas

- Malaria
- HIV/AIDS, Pneumonia and Social Science
- Tuberculosis, assessment and evaluation
- Diarrheal diseases
- Maternal and reproductive health

FUNDERS

Core funding:

- Spanish Agency for International Cooperation and development (AECID)
- Ministry of Health, Mozambique
- Fundació Clinic - University of Barcelona

Other funding bodies:

- Africa Viva Fundación
- Agència Catalana de Cooperació al Desenvolupament (ACCD)
- Bill & Melinda Gates Foundation
- European and Developing Countries Clinical Trials Partnership (EDCTP)
- Fondo de Investigación Sanitaria (FIS), Instituto de Salud Carlos III
- Fundació “la Caixa”
- GlaxoSmithKline Biologicals
- International Union Against Tuberculosis and Lung Disease
- Malaria Clinical Trials Alliance (MCTA)
- World Health Organization (WHO)
- PATH Malaria Vaccine Initiative (MVI)
- Pathfinder International
- PneumoADIP
- The Hib Initiative
- European Union

COLLABORATORS

- Aeras Global TB Vaccine Foundation (USA)
- Africa Centre for Health and Population Studies (South Africa)
- Medical Research Unit Albert Schweitzer Hospital (Gabon)
- Center for Vaccine Development, University of Maryland School of Medicine (USA)
- Centers for Disease Control and Prevention – CDC (USA)
- Centre de Recerca en Salut Internacional de Barcelona – CRESIB (Spain)
- Centre for Poverty-Related Communicable Diseases (Holland)
- Centre Hospitalier Universitaire Vaudois, Division of Immunology and Allergy (Switzerland)
- Contract Laboratory Services – CLS (South Africa)
Direcção Provincial de Saúde de Maputo – DPS (Mozambique)
Division of Infectious Diseases, University of Colorado Health Sciences Center (USA)
EuroVacc Foundation (Switzerland)
Fundação para o Desenvolvimento da Comunidade – FDC (Mozambique)
GlaxoSmithKline Biologicals (Belgium)
HIV Prevention Research Unit, Medical Research Council South Africa (South Africa)
Hospital Central de Maputo (Mozambique)
Hospital Clínica (Spain)
Ifakara Health Institute (Tanzania)
Imperial College London (United Kingdom)
Institute for Medical Microbiology and Hygiene, Universität Regensburg (Germany)
Institute of Tropical Medicine Antwerp (Belgium)
Instituto Nacional de Estadística – INE (Mozambique)
Instituto Nacional de Saúde – INS (Mozambique)
Instituto Superior de Ciências de Saúde – ISCISA (Mozambique)
International Center for Genetic Engineering and Biotechnology (India)
International Network of Field Sites with Continuous Demographic Evaluation of Populations – INDEPTH (Ghana)
International Partnership for Microbicides (USA)
Johns Hopkins Bloomberg School of Public Health (USA)
CDC/Kenya Medical Research Institute – KEMRI (Kenya)
KNCV Tuberculosis Foundation
KEY PUBLICATIONS


Manhiça Field Supervisors 2008

Field worker collecting data from a household member