Brief Introduction

Kaya HDSS is located in the North Central region of Burkina Faso (see maps), in the health District of Kaya. It is about 100 km from the capital Ouagadougou. Kaya HDSS (between latitudes 13° 04’ and 13°17’ N and longitude between 0°59’ and 1°98’W, and altitude rising between 58 and 376 m above the sea). The HDSS area covers 7 sectors of the town of Kaya and 18 villages in the health district of Kaya.

At the end of 2010, the population under surveillance of Kaya HDSS amounted to 60,125 inhabitants in 8,825 households with an average size of 6.5 ± 4.3 persons per household. The resident population of the site is 70% urban and 30% rural. This population is predominantly female with 51.8%, a proportion that is almost identical to that observed at the entire population of Burkina Faso.
The population of Kaya HDSS is characterized by a relatively young age. Indeed, 56% of the population within 20 years and median age of 18. Children under 14 represent 44% of the population. The Muslim religion is the most practiced by the vast majority (78.9%) of individuals in the population under surveillance. Catholic religion represents 17.1% of the population and occupies the second rank after the Muslims. Protestants (3.3%) and animist (0.6%) are poorly represented in the population.

A large majority of the population of Kaya HDSS (53.33%) are illiterate. Women are proportionately more likely to not have attended school than men. Agriculture and livestock are the two main activities of the people of the site. Agriculture remains a rudimentary agriculture, practiced on small areas.

The level of fertility in the population of the DSS is quite high with a TFR of 6.9 children per woman. The average age at childbearing is 27.8 years and the total fertility rate is at 208.1 ‰. The crude mortality rate (CMR) is estimated at 9.5 ‰ on the SSD. Life expectancy at birth is 53.8 years. Malaria is the leading cause of death with nearly 20% of all deaths. Other causes of death were diarrhea (12.4%), renal failure (7.5%), cardiovascular diseases (6.5%), cancer (5.9%). HIV/AIDS, STIs and other diseases are also health burden of the population of the surveillance area.

Fig. Male and female population by age and sex, Kaya HDSS, 2010
## Demographic Characteristics

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<table>
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<tbody>
<tr>
<td>Crude Birth Rate (CBR)</td>
<td>51.9 per 1000 population</td>
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<tr>
<td>Total Fertility Rate (TFR)</td>
<td>6.9 per woman</td>
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<tr>
<td>Crude Death Rate (CDR)</td>
<td>9.5 per 1000 population</td>
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<tr>
<td>Life expectancy at birth</td>
<td>53.8 ans</td>
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<tr>
<td>Neonatal Mortality</td>
<td>25.3 per 1000 live births</td>
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<td>Post-neonatal Mortality</td>
<td>46.7 per 1000 live births</td>
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<td>Infant Mortality</td>
<td>71 per 1000 live births</td>
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<td>Child Mortality (1-4 years)</td>
<td>17.1 per 1000 children aged 1-4 years</td>
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<td>Rate of Natural Increase</td>
<td>20.26 per 1000 population</td>
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## Objectives

### Primary purpose(s) of the HDSS

The purpose of Kaya HDSS is to study the demographic and health situation of the West African population with very high mortality levels, to observe changes over time, and to examine the factors involved, which can serve as a basis for policy-makers and capacity building in order to enhance the community health.

### OBJECTIVES

- To identify the characteristics and the trends of morbidity and mortality periodically and longitudinally within the population of the site;
- To identify the socio-economic characteristics of the population and the influence of these variables on public health;
- To analyze the evolution of HIV epidemic and its demographic impact.
- To determine the impact of HIV epidemic on reproductive health
- To identify the determinants of maternal and neonatal morbidity and mortality
- To create a platform of research for the health interventions accordingly.

### Priority Research Areas

- Epidemiology of HIV/AIDS
- Reproductive health
- Health system
- Health policy
- Evaluations of health programmes
- Clinical trials
- Community trials
**Ongoing projects:**


2. Implementation and impact of an intervention program against malaria in Burkina Faso. Financed by CIHR / IDRC (Canada).

3. Research and community interventions for health equity in Burkina Faso and Mali. Financed by CIHR (Canada).


**Funders**
- WHO/HRP
- FARES
- European Union (FP7)
- IRSC, Canada
- CRDI, Canada

**Collaborators**
- Hospital and district of Kaya
- National Hospital Yalgado Ouedraogo
- WHO
- World Bank
- University of Montreal
- International Center for Reproductive Health, Belgium
- Centre National de Recherche et de Formation sur le Paludisme (CNRFP)
- Institut de Recherche sur le Développement (IRD)- Burkina Faso
- Programme National de Lutte contre le Paludisme (PNLP)
- International Centre for Reproductive Health, Ghent University (Belgium)
- International Centre for Reproductive Health - Kenya (ICRHK)
- Kamuzu Central Hospital (Malawi)
- Parent and Child Health Initiative (PACHI) (Malawi)
- International Centre for Reproductive Health - Mozambique (ICRHM) (Mozambique)
- Eduardo Mondlane University – Faculdade de Medicina (UEM), Maputo (Mozambique)
- Faculdade de Medicina da Universidade do Porto - Department of Hygiene and Epidemiology (FMUP) (Portugal)
- Centre for International Health & Development (CIHD), University College of London (UCL) (UK)

Communications and Publications:


Field workers getting ready on their motor bikes to collect data from the communities

Collection of data from a household member