**Brief Description**

The Nahuche Health and Demographic Surveillance System Site (HDSS) is located in Nahuche community in Bungudu Local Government Area (LGA) of Zamfara State, in Northwestern Nigeria. The study area is 32 kilometers from the state capital, Gusau, and is made up of six traditional districts of Bella, Gada, Karakai, Nahuche Keku, Nahuche Ubandawaki, and Rawayya which together have a total of 306 villages covering three political wards (out of the 11 political wards in Bungudu LGA).

The Nahuche HDSS started in 2009 with a pilot census in May/June 2009 followed by a baseline census (Sept-Dec 2010) and six monthly cycles of data collection beginning in January 2011. As of December 2012, the population under surveillance was 143,600 (72,339 females; 71,261 males) residing in 21,317 households within 7,913 compounds. Literacy levels are very low and infrastructure, including road network, power generation and supply, is inadequate. The general sanitation in the area is poor.

Nahuche has a warm climate with temperatures rising to 38 degrees celcius from March to May. Farming is the most common economic activity and unemployment is rampant with associated temporary labour migration of men. Virtually all community members practice Islam and are Hausa by ethnicity. During the baseline, the surveillance population had a youthful age structure (20.4% of individuals were <5 years; 50.9% were <15 years). The elderly (65+ years) accounted for 3% of the population. Mean age was 19.6 years and the most common (88.6%) type of education is Quranic.
Nahuche HDSS’s Mission
To serve as a beacon for international collaborations on population-based research aimed at developing innovative health service programmes to advance the health and well-being of very low income, rural Northern Nigeria and African populations.

Objectives
• To assess the dynamic impact of health and social service policy changes on population health and well-being in Nahuche, in order to give real-time feedback on how programs are working.
• To provide population-based assessments as a benchmark for comparing to sample survey and other methods for assessing population and health changes.
• To provide a platform for collaborative research into innovative strategies to promote health and well-being in very low-income rural African settings.
• To disseminate study findings nationally to Nahuche HDSS stakeholders and other upcoming HDSS sites in Nigeria; and internationally to the INDEPTH network, influencing policy and practice.
• To support capacity-strengthening and cross-site collaborations among INDEPTH member institutions.

Research priorities
• Demographic, health and social dynamics
• Community based service delivery
• Women’s access to micro-credit and health outcomes
• Population and environment

Nahuche HDSS population pyramid, 2012
**Selected demographic characteristics, 2012**

<table>
<thead>
<tr>
<th>Vital statistics</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant mortality rate</td>
<td>62.8 per 1,000 live births</td>
</tr>
<tr>
<td>Child mortality rate</td>
<td>208.9 per 1,000 children</td>
</tr>
<tr>
<td>Under-five mortality rate</td>
<td>272.9 per 1,000 live births</td>
</tr>
<tr>
<td>Crude death rate</td>
<td>16.8 per 1,000 mid-year population</td>
</tr>
<tr>
<td>Total fertility rate</td>
<td>7.1 births per woman</td>
</tr>
<tr>
<td>Life expectancy at birth (Females)</td>
<td>52.0 years</td>
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<tr>
<td>Life expectancy at birth (Males)</td>
<td>51.7 years</td>
</tr>
<tr>
<td>Life expectancy at birth (Both sexes)</td>
<td>51.8 years</td>
</tr>
<tr>
<td>In-migration rate</td>
<td>7.2 per 1,000 mid-year population</td>
</tr>
<tr>
<td>Out-migration rate</td>
<td>18.8 per 1,000 mid-year population</td>
</tr>
</tbody>
</table>

**Funders**

Government of Norway  
Department for International Development (UKaid)  
Zamfara State Government (Nigeria)  
Bungudu Local Government, Zamfara State (Nigeria)

**Collaborators**

Usman Danfodiyo University, Sokoto State (Nigeria)  
Zamfara State Bureau of Statistics  
National Population Commission  
Columbia University (Mailman School of Public Health)

**Selected publications**


Field worker interviewing a respondent during update rounds data collection.

Cross-section of staff during training

Supervisor during spot checks to ensure quality of data.