Policy Recommendations

To enhance the effectiveness, utilization and sustainability of Bambasi Health and Demographic Surveillance Systems (HDSS) databases, the following policy directions are suggested.

- **Strengthen Collaboration and partnership**: Establish formal partnerships between HDSS sites and national statistics offices to improve data harmonization and accessibility. This collaboration can enhance the credibility and utility of HDSS data for national health planning and policy-making.

- **Enhance Data management capacity:** invest in the infrastructure and training necessary for effective data management and analytic within HDSS. This includes developing sustainable funding mechanisms to support ongoing research and data collection efforts, ensuring that HDSS can continuously provide high-quality data for health interventions.

- **Promote Data Utilization**: Encourage the use of HDSS data in local health information systems and decision-making processes. This can be achieved by facilitating workshops and training sessions for policymakers and health practitioners on how to interpret and apply HDSS data effectively.

- **Advocacy for better use of data:** Advocate the use of HDSS data in local health information systems and in decision making processes. Workshops and training on how to read and use HDSS data can be organized for policymakers and health practitioners.

- **Promote longitudinal studies:** BHDSS can be used as a database source for longitudinal studies by postgraduate students and academicians. It can also be used for integrating teaching, research, and community services.

A POLICY BRIEF

Contents

Acknowledgement

This policy brief is produced with the support of Assosa University. We acknowledge Emory University, KOICA, and the UNICEF for their financial support for the establishment and updating of the Health and Demographic Surveillance System database.

Disclaimer

The views and interpretations expressed in this brief are solely attributable to the authors: Mulatu Agajie Amentie (Assistant Professor of Reproductive Health) and Dr. Muluwas Amentie Zelka (PhD, Public Health) and do not necessarily reflect the official positions or policies of Assosa University or any affiliated entity.

A POLICY BRIEF

Major challenges

During the implementation of BHDSS project, the major challenges that need urgent interventions were as follow:

- **Lack of funding and Sustainability**: Bambasi HDSS sites struggle with challenges of securing consistent funding, which can affect the frequency and quality of data collection. Sustainable funding mechanisms are essential for the long-term viability of HDSS.
- **Lack of integration with National Systems**: There was difficulty in integrating HDSS data with national health information systems, which may limit the use of HDSS data for broader health planning and policy-making.

Key Findings

- The demographic indices of the Bambasi HDSS for the 2022 - 2024 period are summarized for this policy brief. Of the total population registered (42,013), about 21,045 (50.09%) were male. Total households registered and under follow-up was 9,268. Children under age 15 represent 35.7% of the population, while individuals aged 15 - 64 represent 59.3%. The mean number of individuals per household was 4.4.
- During the three rounds of follow-up data collection, there were 671 live births, 146 deaths, 4434 people were out migrated and 1910 people were in migrated during 2022 and 2023.
- In 2023, the crude birth rate was 25.8 per 1000 live births. In the same year, the crude death rate was estimated at 5.6 per 1000. This implies that there was high population growth and low utilization of contraceptive methods.
- The infant mortality ratio of 10 deaths per 1,000 live births and perinatal mortality of 17.8 per 1,000 pregnancies.

A POLICY BRIEF

Background

- The Health and Demographic Surveillance System (HDSS) plays an important role in collecting longitudinal data on populations in areas with poor vital registration systems. It tracks important vital events such as births, deaths, and migration, providing essential information for planning and policy-making in public health, which support maternal and newborn health initiatives to the Sustainable Development Goals (SDGs).
- Benishangul Gumuz region has among the highest under-five mortality rates in Ethiopia. In the region, there is no adequate vital event registration system, HDSS are pivotal in understanding population dynamics, disease epidemiology, and health outcomes. High-quality data collection and management are essential for effective health interventions, aiming to reduce maternal, neonatal, and child mortality and improve overall public health.
- As a result, Bambasi Health Demographic Surveillance System (BHDSS) was established in January 2022, which helps to collect accurate population-based data for policy-makers and researchers. It helps to evaluate health interventions, enhancing national health planning, and determining appropriate allocation of resources. Bambasi HDSS captured vital events to generate evidence-based decision on the health priorities, including area that need for reduction of maternal and infant mortality. Initially, HDSS covered 8 rural and 2 urban kebeles with 26,975 people, it expanded in 2023 to 16 additional rural kebeles, reaching 42,013 people on December 2024. Data collectors visit households every six months to record demographic and health information, including family planning services, pregnancy conditions,

household wealth index, water, sanitation and hygiene (WASH), deaths, child immunization and verbal autopsies.

- This policy brief is prepared to elucidate the prospects of HDSS in Benishangul-Gumuz Region to help policy makers, researchers, and other stakeholders in the health system.

A POLICY BRIEF

Methodology

- The Bambasi HDSS follows the population dynamics (births, deaths, and migrations) of all individuals and households (HHs), covering the entire population of 24 rural and 2 urban kebeles in Bambasi district. Households were first registered in January 2022, and thereafter, biannual household visits conducted to update the information and register the vital events.

- Information is collected through OpenHDS and ODK, where each member has HDSS identification number to align repeatedly collected information and events.

- During baseline survey, socio-demographic, housing, WASH and economic data were collected via door-to-door visits, and stored on a server. The study used open cohort longitudinal study design to follow individuals and households over time, allowing for analysis of health trends and effects of interventions.

- Data accuracy and consistency were ensured through training of field workers and supervisors, regular updates of data audit and implementing data validation process. Before starting data collection, data collectors were secured informed consent, data privacy, and community engagement.