

Kersa HDSS goes Digital

Kersa Health and Demographic Surveillance System (Kersa HDSS) gave training to its personnel on automated data gathering, entry and management procedures. The training was conducted in two sessions from 22 September to 24 September, 2016 for the Harar site field workers and being implemented in the Urban HDSS fully. This gives time for data managers and field workers fully understand in detail data collection and management using tablets. This training was given in light of the new advancement to change from the Household Registration System 2 (HRS2) the site was using to the new Open Health Demographic Surveillance (Open HDS). Kersa, as one of the HDSS sites in Ethiopia, is the first to apply the data collection mechanism using mobile devices.



In HRS2, data collectors and server needed to have physical proximity in order for the data manager to upload the collected data into the server, but now data collectors would upload the collected data and the data manager could access it while in office.

Error identification and notification are added features to the Open HDS. When errors were found, the data manager had to go through the whole data to identify what has been done incorrectly, where, by who but in the Open HDS an email would be sent with the description of the erroneous data to notify the data manager.

The unlimited space provided by Open HDS is another feature that is an advantage to sites that use this platform. The HRS2 was subject to this problem as it would fill after it has been in use for some years. The programming language is also up-to-date in Open HDS, and this makes it convenient for user to find support online easily.

From the six HDSS sites in Ethiopia, Kersa HDS is the first to apply the mobile data collection application. The rest of the HDSS sites are expected to follow suit. Ethiopia is the only country to have six HDSS sites in one country.



The user friendly nature of the platform together with the lesser work process involved makes Open HDS the ideal data collection mechanism. Open HDS has no paperwork and the whole process is easy and shortened. It would also give ample time to data managers to analyze the data collected.

Kersa HDSS, which was established in 2007, is located in Kersa district of eastern Hararege, Oromia region, Eastern Ethiopia. It was with the vision of becoming center of excellence in health science research in Ethiopia. It conducts health and demographic surveillance. The major work on the ground are monitoring demographic altering events such as birth, death, and migration; and health related conditions such as pregnancy, immunization, and morbidity. It also conducts verbal autopsy for the deceased to identify causes of death. It is an INDPATH network member site.

The site aims at generating up-to-date community based data including vital events; conducting studies addressing national health need; assessing trends of demographic, health and environmental changes; evaluating health intervention activities; enhancing research culture in the teaching and learning process; rendering support on research methods and analysis for students and staff; disseminate research findings to different users; and advocating utilization of research findings to improve the health and other service delivery.

Kersa Field Research Center

The Health and Demographic Surveillance System (DSS) at the start used 12 representative Kebeles out of the 38 in Kersa districts. Out of the 12 Kebeles, 10 are rural and two are urban (Kersa and Weter town); whereas by altitude difference, 2 are highland two are low land the remaining 8 are mid land. All the 12 study Kebeles have road access during the dry season. Even though the rainy season makes it a bit difficult, it is not very hard to reach the Kebeles during the rainy season. Starting from 2015, the total kebeles under the study becomes 24.

All the Kebele administrative offices have land line telephone connection. In addition, in towns some dwellers have landline telephone connection but a significant numbers of residents in the both urban and rural study Kebeles have mobile telephone. The three towns have 24 hour electricity supply. In addition, few areas in some rural kebeles, there is electricity supply. Residents in the study kebeles get water supply from tap water, protected springs, unprotected springs, protected and unprotected well and ponds.

There are 6 health centers and 19 health posts in the 24 kebeles of the study site. All the kebeles have 2-3 health extension workers assigned to work on the 16 health extension packages. There are 18 elementary, 2 secondary, 1 preparatory, and 2 religious schools in the study Kebeles. There are also 134 mosques, 8 churches and 12 farmers training stations.

The inhabitants of the study site make their living principally on farming. But small trade, government employment and daily work are also means of living. Cereals like wheat, barley, and vegetables like onion and garlic are the dominant crops produced in the highland areas. Sorghum, maize, potatoes are dominant crops in the midland and low land areas. Khat is the dominant cash crop production in most of the places.

Farming is seasonal in the study Kebeles. They make production during the rainy season. But in one of the Kebeles (HandhuraKossum), irrigation is a common practice. Residents of this kebele produce three times a year, majorly for market.