

## **Electronic health system for morbidity surveillance in a health and demographic surveillance site in rural Eastern Uganda**

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### **Background**

Health and Demographic Surveillance systems (HDSSs) are used to monitor key health indicators in developing countries where civil registration of vital events is almost nonexistent. The Iganga/Mayuge Health and Demographic Surveillance System (IMHDSS) set up an electronic health observatory system in Eastern Uganda linking IMHDSS individual data to community health facility data in the Demographic Surveillance Area (DSA).

### **Objective**

To monitor disease burden, drug utilization, health-seeking behavior, ante and postnatal care, vaccination, contraceptive use, adverse drug events, morbidity trends and patterns in a population cohort in eastern Uganda.

### **Methods**

An electronic health records system (eHR) was established at a busy community based in rural health facility in the DSA. Individuals with unique identifiers in the neighboring villages within the DSA were uploaded onto the eHR system database which enables easy linking of the HDSS data to health facility data.

### **Preliminary results**

Captured information in the system shows that majority of patients visiting the health facility are females (65.0%) compared to males. Most patients are aged between 0-14 years (53.5%). Three top most diagnosed diseases are Malaria (26.6%), lower respiratory tract infection (7.9%) and peptic ulcers (7.3%). Other data collected using eHR system is about vaccines, maternity, laboratory, and medicines.

### **Conclusion**

An HDSS that links with health facility data is effective in morbidity surveillance. Such a system can be used to monitor SDG goals which are measured at health facility, can be utilized for pharmacovigilance and drug utilization studies like antibiotics use. Routine morbidity surveillance information is vital in planning for health products at facility, enhances adherence to guidelines as most importantly informing policy and guiding future health care interventions in Uganda.