

# Designing and developing electronic Management Information System (eMIS) to capture maternal hypertension and diabetes services

## Background

Bangladesh Maternal Mortality and Health Care Survey (BMMS) 2016 showed that 20% of maternal deaths were due to indirect causes; half of which are related to cerebrovascular and cardiovascular complications and which are common in uncontrolled hypertension and diabetics. The most recent (2017) Bangladesh Health and Demographic Survey (BDHS) and the WHO STEPwise Approach to NCD Risk Factor Surveillance (STEPS) have reported the prevalence of diabetes (8-10%) and hypertension (25-27%) among adults aged  $\geq 18$  years. The Non-communicable disease control (NCDC) programme of Directorate General of Health Services (DGHS), Ministry of Health & Family Welfare (MOHFW) Bangladesh recognizes the need for addressing NCDs in the population, especially among high-risk groups including pregnant women.

icddr,b, with support from USAID's Research for Decision Makers (RDM) Activity developed an Android app (NCD-eMIS system) for the NCDC to automate the NCD management model initiated in 2018, which was seen as critical for the success of the model in identification, referral and follow up across the continuum of care.

## Study area

icddr,b has supported the piloting of this system in three Upazilas:

- Baraigram Upazila of Natore District
- Kotchadpur Upazila of Jhenaidah District
- Satoria Upazila of Manikganj District

## Study activities

In the NCD model, pregnant women of any age and females and males aged over 40 years are identified as "at risk population" or clients. Using the NCD-eMIS system, the CHWs visit the households and identify clients who need to be examined. They enroll and refer them to Community Clinics (CCs) for screening and/or Upazila Health Complexes (UHC) for diagnosis and management. The system automates the process from identifying cases to tracking care seeking at each service delivery points and the services received at those centers.

## Conclusion

The automation of the NCD management model through the NCD-eMIS system is owned by the NCDC programme of DGHS and they are gradually scaling it up, for which the programme is pooling own funds and funds from development partners to increase coverage. Current scale-up activities include introduction of the NCD-eMIS system in six sub-districts of Narshingdi and Cox's Bazar District funded by JICA. NCDC, DGHS has also provided funding to introduce the system in whole Natore District.

This brief was produced with the support of the United States Agency for International Development (USAID) under the terms of USAID's Research for Decision Makers (RDM) Activity cooperative agreement no. AID-388-A-17-00006. Views expressed herein do not necessarily reflect the views of the US Government or USAID. icddr,b is also grateful to the Governments of Bangladesh, Canada, Sweden and the UK for providing unrestricted/institutional support.