Improving quality of care for sick newborns through CIN

Sick or vulnerable newborns will often require inpatient care in referral facilities from skilled workers with access to basic technologies. The interventions often delivered at this level include, for example, fluids or feeds for those unable to suck or oxygen for respiratory support.

A key aspect towards delivering interventions that reduce childhood mortalities is getting to analyze and understand the data that is generated during hospital admissions. This data enables hospitals to monitor the quality of care they offer to children and use the data in planning service delivery for sick children and newborns.

One way of improving service delivery is by capacity building in the form of emergency triage and treatment plus admission care (ETAT+) trainings. This is a 5 day course aimed at all health workers from nurses, clinical officers, doctors and even nutrition officers who provide initial care in a typical African setting.

The Ministry of Health together with KEMRI-Wellcome Trust, the University of Nairobi and The Kenya Paediatric Association have led the initiative to have medical students undergo emergency triage and treatment plus admission training as part of their course work. At some point, their skills on the resuscitation of newborn babies and children is assessed. The Basic pediatric protocols are used as the primary training tool. This pocket book targets management of the seriously ill newborn or child in the first 24-48 hours of arrival at hospital and are based on specific and up to date reviews of evidence.

ETAT+ trainings for health care workers

The trainings are conducted by specific instructors including mentoring to ensure quality.

Close to 2,900 health workers and over 3000 undergraduates have been trained since the year 2007 when the trainings began.
The Health Systems Unit (HSU) team has engaged with the Kenyan Ministry of Health since 2002 and now has over 20 Kenyan researchers. In the past 11 years a unique platform of work focusing on implementing key interventions in Kenyan hospitals has evolved. Through the establishment of the Clinical Information Network (CIN), the Ministry of Health, in collaboration with KEMRI Wellcome Trust Research programme, Kenya Paediatric Association and participating hospitals, have developed a project to support improved data collection and use of hospital data. The pictorial below depicts the generic data management framework that was adopted to facilitate efficiency of CIN.

This framework has further been scaled up and is now generic to most projects undertaken by the Health Services Unit. Further, this platform consolidates the utility of various open source or non-proprietary technologies like R, GitHub, REDCap, Alfresco for document management in the unit.

RedCap is the primary data collection tool for CIN. Below is an example of document flow for normal discharges in one of the CIN hospitals/sites.

CIN has been given an opportunity to share its and the hospitals achievements work at the national Kenya Paediatric Association conference from 2nd - 5th June 2015 in Limuru.