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PORTABLE PATIENT ᴇRECORDS

Grantee
VECNA CARES

Grant amount
GBP 394,863

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May 2016–April 2019

Beneficiaries
Nurses/midwives in the maternity department, administrators, and patients

Region
Zanzibar

VECNA CARES

A patient arrives for her antenatal clinic appointment.

PROJECT BACKGROUND

In Zanzibar, as elsewhere, providing adequate and quality health-care services is often hampered by a lack of accurate and complete records that would otherwise enable health providers to follow patients along a continuum of care (CoC) and treat them accordingly. Patients often attempt to keep their own records in notebooks, but these are easily lost and damaged, and consequently the historical care record disappears.

In partnership with Mnazi Mmoja Hospital (MMH) and the Zanzibar Ministry of Health, Vecna Cares piloted CliniPAK, an electronic medical records (EMR) system that captures patient data at the point of care and provides patients with access to their patient history via their mobile phone. By closing the information loop between patients and hospitals in this way, Vecna Cares aimed to improve health outcomes by providing both clinicians and patients with the information needed to make data-driven evidence-based decisions about their care.

PROJECT DESCRIPTION

During the implementation of this project, health-care providers within reproductive and child health (RCH) clinics and maternity wards were trained on how to register mothers and record their care using the CliniPAK system on a tablet. Additionally, records team personnel and some hospital directors were trained on how to generate reports for decision-making.

The mobile platform component sends follow-up reminders and other health messages to patients via SMS.

PROJECT RESULTS

The project has had several successes along the project pathway. To date:

- Over 9,000 patients have been registered on the CliniPAK EMR system. The high volume of patients indicates the uptake of the system by clinical staff and highlights the consistent uptime of a digital system in a low-resource setting.

- The mobile application has sent health messages to over 1,700 patients – roughly 25 per cent of the EMR patients. This number is significant because it emphasises not only the limited availability of mobile devices in Zanzibar, but also the importance of the SMS messages when a device is available.

- A total of 70 nurses have been trained on EMR system use and mobile application support.

- Seven system administrators have been trained in application support and maintenance.

- Four hundred and eighty antenatal mothers have received vital clinical information and 1,262 discharged patients have received postnatal care information – both via SMS.

- The digital system also contributed to several strategic management decisions within the hospital, including transition to a fully paperless patient information system.

HEALTH PROJECT PROFILE

KEY LESSONS

Adopt a methodical approach to problem-solving: Though the key activities of the project were all achieved, there were considerable delays in their delivery. This can be attributed to (i) hospital staff turnover; (ii) changing organisational goals; and (iii) inadequate technical capacity. In response, an agile, iterative method was adopted that allowed for continuous assessment alongside regular bug fixing and feature updates to both the EMR platform and mobile application. This proved to be more successful in terms of achieving the project's goals and keeping within the project timelines. It also allowed for continuous on-the-job training and skills improvement, which helped to mitigate against the high staff turnover and competing organisational priorities.

Build in flexibility: One challenge of working in Zanzibar was dealing with the natural tension between what is acceptable internationally and what is practical, given the conditions on the ground. Accordingly, Vecna Cares made every effort to be flexible and ensure that project goals were customised to local needs as well as being aligned with global standards. The programme strategy was adjusted often; for instance, even though the global standard demanded translation of the software to Kiswahili, the hospital's management team preferred to keep it to English so that they could use the software to improve the language skills of their team.

GENDER EQUITY AND SOCIAL INCLUSION

The EMR system has enabled health workers, who are predominantly women, to give timely and more accurate feedback to senior colleagues, who are often men. These frontline caregivers have become more familiar with medical terminology and can now better communicate with doctors and specialists when transferring patient data. This has not only improved the relationship between team members, but also enabled their own self-confidence as professionals to grow.

PRINCIPLES FOR DIGITAL DEVELOPMENT

Design with the user: Feedback received from patients attending and staff working at the ante-natal clinic (ANC) at MMH was used to develop the mobile component of the project and user acceptance testing was conducted to refine the tools. This approach was aimed at giving the staff and patients of MMH as much control and access to the development process as was practically possible.

Be data led: At the time the project started, the MMH records department's paper-based system had collapsed due to the extended absence of the records department manager and a lack of capacity among available replacements. The project therefore begun in a sort of data vacuum where anecdotal data was relied on for decision-making and it was difficult to confirm information independently. The challenge for Vecna Cares was to work with the records department to rebuild its capacity and be deliberate about referencing data in all engagement with stakeholders.

NEXT STEPS

The Zanzibar Ministry of Health is currently working on modalities to integrate all EMR systems and achieve interoperability between the various providers, including Vecna Cares. By deploying a global standard EMR, there is a high likelihood of the system being adopted across multiple facilities in Zanzibar and Tanzania.

VECNACARES

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