The Kenya Hospital Management Information System
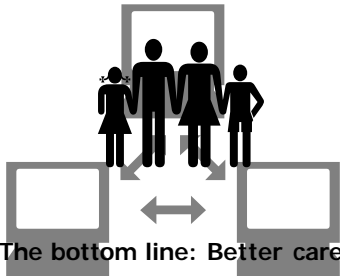
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APHIA Financing and Sustainability Project
HOSPITAL MANAGEMENT INFORMATION SYSTEM

The Hospital Management Information System can pay for itself in two months.

A tool for today's times

For hospitals and clinics in Kenya there is now a sophisticated yet inexpensive tool that can boost revenues and improve management of expenditures—the Hospital Management Information System. This inexpensive, locally developed and supported software program is modular, so it can be installed a section at a time. The full system was installed under the APHIA Financing and Sustainability Project (AFS) at Chogoria Hospital and in part at Coast Provincial General Hospital and Thika District Hospital.

The bottom line: Better care

Origins of the system

At Chogoria, the AFS team began with a comprehensive study of costs and revenues in each department of the hospital and its network of 31 satellite clinics using the HOSPICAL and CORE costing tools. The study showed that the hospital, which had diversified to try to improve its finances, was losing money on non-core businesses. Hospital managers did not have the information they needed, when they needed it, to make good decisions.

For example, before the study, Chogoria Hospital management had not known that it was losing Ksh23 million a year on its inpatient care, while it earned a surplus of Ksh20 million on outpatient care. The AFS team strengthened the hospital's accounting system and hired a local accountancy firm to design the computer management information system. The idea was to make the hospital more self-sufficient, so it wouldn't need to rely on donors.

HMIS at work

A network of 12 computers and a server were installed in Chogoria in July 2000. The program was implemented module by module, as staff were trained, through March 2001. Now that the hospital does patient billing

online, it can better capture all fees and manage debtors. Under the old system, with handwritten ledgers, there was no easy way of identifying and pursuing people who'd run up big debts. The hospital can now get a trial balance with the push of a button. It can register, admit, invoice and bill all charges on the computer, as well as track payments.

Meanwhile, at Coast Provincial General Hospital, the accounting modules that constitute the core of the hospital management information system have been installed— patient registration, billing, invoicing, cash collections and receipting. Stores management is soon to be installed, once an inventory has been taken and all stock has been moved to a newly renovated building.

Benefits you can take to the bank

With better management information and tighter controls, there is more money for better patient care. Moreover, the system was developed by a Kenyan, in Kenya, so is less expensive than anything available internationally. Not only that, it:

- ✓ Increases revenues collected by at least 20 percent in Chogoria
- ✓ In Chogoria, paid for itself in two months
- ✓ Makes timely, accurate financial information available instantaneously
- ✓ Permits better decision making
- ✓ Cuts workload, especially in areas such as payroll, patient registration, admission, invoicing, billing, cash collection and debt follow-up
- ✓ Automatically computes bed occupancy, average length of stay and mortality, by department, so management can take steps to remedy problems early

Keys to success

The Hospital Management Information System may not be for everyone. The following considerations apply:

1. High patient volumes are required to make the investment worthwhile. Hospitals with under 150 beds or larger hospitals with low occupancy rates may not consider the initial investment worthwhile.
2. Management must have control of staff. If not, resistance to change cannot be easily overcome and the system will be undermined. This is likely to be a particularly difficult issue to deal with in Ministry hospitals, where staff may be poorly paid and motivated.
3. Staff need to be computer literate. Some staff must have an accounting background.
4. Installation should begin with easier modules first, and staff should master a module before the next one is installed. Revenue is more likely to continue to increase if staff have learned the system well.

5. Some modules, particularly stocks, pharmacy and debtors, require a lot of work to implement. Be prepared, and do these last.
6. It takes approximately six months of very intensive work to install the system in any hospital. Be prepared to spend the time.

Future promise
The system has potential to improve management in any public or private hospital in the region. It is locally developed and supported and much less expensive to implement than international systems.

APHIA Financing and Sustainability Project
Implemented by Management Sciences for Health under USAID Contract No. 623-0264-C-00-7005, the project worked with Kenya's Ministry of Health and hospitals across the country to improve organizational performance and quality of services, control costs, increase revenues (and cash collection), and improve patient and staff satisfaction. The purpose of these activities was to improve the quality of care provided by the hospitals, as well as institutional sustainability.