Hospital Name:
MetroHealth Hospital

Address:
1919 Boston Street S.E.
Grand Rapids, MI 49509-4199
(616) 252-7200

Contact:
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Services/ED

2005 ED Volume: 37,413
Growth from 2004: -0.4%
Total Staffed Hospital Beds: 190
Acute ED Beds: unknown
Fast Track: Yes
Clinical Decision Unit: No

Problem to be Resolved:
Long average length of stay

Tools Provided:
▪ Revenue Enhancement
Chart

Key Words:
▪ Technology
▪ ALOS
▪ ED Information System

Lessons Learned:
Before adopting any new software in the ED, it is essential to obtain the support of the hospital's IT staff. Not only will their support be beneficial in getting approval for the investment, they can help with choosing the best technology, as well as implementing and integrating with the hospital's current technology system.

Note: In September 2007, MetroHealth Hospital moved from Grand Rapids, MI, to Wyoming, MI.

Reason for Change:
MetroHealth Hospital's ED was interested in the use of technology to help decrease its average length of stay (ALOS). They chose to use the ED Information System from Medhost of Addison, TX.

Implementation:
MetroHealth introduced the new technology in two phases, so that staff would have time to adjust and not feel too overwhelmed at once. In 2001, they implemented the patient tracking component. This software also has functions for discharge instructions and prescription writing. In 2003 the nurse charting function was added to the software. Together these technologies keep track of everything that is going on at any given time, and also make it easy to go back and look at the collected data as needed.

After each of these two phases, staff members were trained extensively, and their feedback was sought to optimize the use of the technology.

The technology is first used at triage so that patients can be sent back to beds right away. The charge nurse uses the software to assign an empty bed to the next patient, even before that next patient presents at the ED. Thus the triage nurse knows immediately where each arriving patient should be sent. This eliminates unnecessary calls that used to be part of the bed placement process.

With the new technology, all members of staff can see everything that is going on at a given time. They can identify and delays and try to help fix them before any huge problems occur.

Another step towards improvement that MetroHealth took in its ED was to combine triage and registration into a single step. A member of the registration staff is stationed at triage, and completes a patient's registration during triage. This process takes only about four minutes.

The initial cost of the ED Information System software is between $350,000 and $600,000, depending on the size of the hospital and functions desired. However, proponents say that the cost is justified, and hospitals will soon see a positive return on the investment. MetroHealth, for example, saw an incremental $50 per patient net as a result of the ED Information System.

Results/Impact:
MetroHealth now has a door-to-physician time of just 19 minutes. Since putting in place this new technology, average length of stay in the ED has decreased from 2.18 hours to 1.86 hours. Length of stay in the ED for admitted patients has also decreased, going from 3.98 hours to 3.55 hours.

Facility Coding Enhancing Revenue

Legend: PRE-MEDHOST   POST-MEDHOST
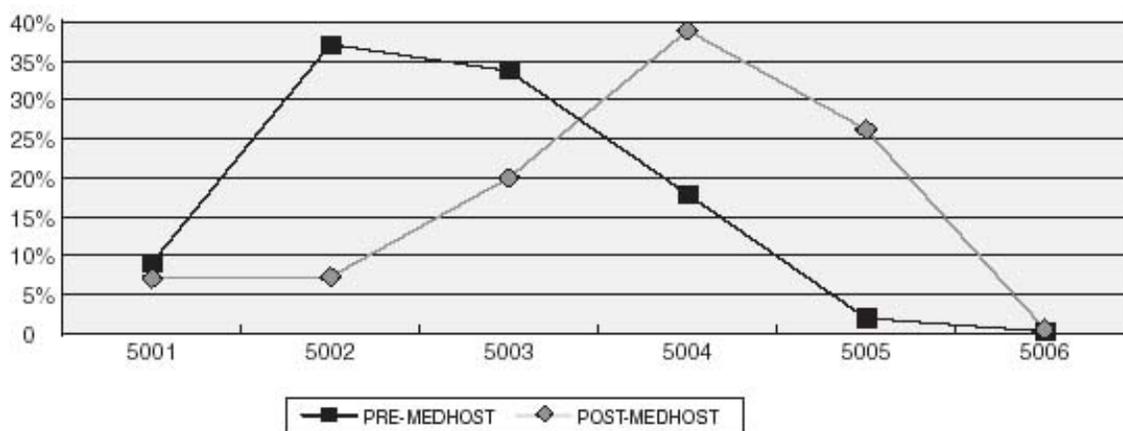
MetroHealth Hospital's pre-Medhost electronic charge capture case mix was about 2.2. Post-Medhost implementation increased case mix to about 3.6.

	Projected	Actual
Per Visit Increase in Gross Revenue	$167	$165
Per Visit Increase in Net Revenue	$60	$50

$10 difference attributed to analysis — projected. Analysis done using selected payer groups. Actual was done on all outpatient visits.

Source: MetroHealth Hospital, Grand Rapids, MI.