

**Hospital Name:**  
Bellin Hospital

**Address:**  
744 South Webster Avenue  
Green Bay, WI 54305-3400

**Contact:**  
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2005 ED Volume: 31,568  
Growth from 2004: 14%  
Total Staffed Hospital Beds: 182  
Acute ED Beds: unknown  
Fast Track: No  
Clinical Decision Unit: No

**Problem to be Resolved:**  
Attempts to improve patient flow in the ED limited by overall hospital throughput

**Key Words:**

- Flow Group
- Supply and demand
- Color coded
- Flow Command Center

**Lessons Learned:**

Bellin Hospital learned early on that they cannot look at different units of the hospital as separate entities. Instead one must look at the “big picture” of the overall hospital, because the actions of each unit in the hospital will ultimately affect each other unit.

**Reason for Change:**

Bellin Hospital’s leadership initially set out to improve patient flow through the ED and operating rooms, but success was limited when they realized that the units that were to be receiving these patients did not always have the bed availability to do so. Hospital leadership then recognized that they must not only look at improvements in individual units (micro-level improvements), but also in the hospital as a whole (macro-level improvements).

**Implementation:**

A “flow group” made up of representatives from units and departments throughout the hospital was formed to monitor patient flow through the hospital. The flow group is responsible for examining flow data, identifying any problems affecting flow, and coming up with solutions to these problems.

Additionally, patient flow is monitored in the Flow Command Center, where web-based technology is used to provide an overview of supply and demand in each department across the entire hospital. This information is updated every four hours to provide an up-to-date assessment of capacity. Each department is color-coded green, yellow, orange, or red, indicating the extent to which current supply can accommodate demand. By looking at the big picture, all hospital resources can be managed most efficiently.

This monitoring system offers the opportunity for staff from different departments to help each other out as needed. For example, if one department is operating with excess capacity, and notices that another department is coded as red (overwhelmed), they will send some of their staff to that other department to help out.

Initially there was some concern that nursing staff may feel overwhelmed or uncomfortable “floating” to units with which they have little or no experience. To address this issue, each unit created a list known as a “helper list,” which outlines tasks that can be performed by any floating staff member, regardless of his or her regular department. Each department has also come up with an in-depth guide to how their department is run, to give floating staff an introduction into the department. Floaters who are in a foreign department for an entire shift will be assigned a buddy, who will check up on them from time to time and offer any necessary support.

This program has created a positive interaction between the different departments hospital-wide, reminding each department that they are in fact a part of a larger system. Staff members are willing to help out other departments, knowing that they will receive the same help when they need it.

**Results/Impact:**

Bellin Hospital increased the efficiency of hospital beds, as measured by the acuity-adjusted bed turnover rate, to 109 bed turnovers per year. This is substantially higher than the minimum recommendation by the Institute for Healthcare Improvement (IHI) of 90 bed turnovers per year.

Also, Bellin decreased the door-to-physician time in the ED from 57 minutes to 22 minutes during the one-year period following the implementation of this program. Overall length of stay in the hospital has decreased from 4.2 days to 3.8 days during the same time period.

Additionally, using nursing staff more efficiently between departments has cut down on the need for nurses to work overtime after their shifts, thus reducing nursing overtime costs and increasing satisfaction among the nurses who are able to go home immediately after their shifts end.