

Performance Strategies



Improve Care & Capacity with At-a-Glance Enterprise Visibility

Vol. 2, Issue 5, 2008

Matching Capacity Management to Disaster Response



By Derek Berz
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Providence Holy Cross Medical Center



We're No Stranger to Disasters and Daily Crisis Mode

Located in Southern California's San Fernando Valley, we are no stranger to disasters at [Providence Holy Cross Medical Center](#). The campus has been rebuilt twice, after devastating earthquakes in 1971 and 1994, and "wildfire season" visits us regularly each fall and winter. But like many community hospitals, all too often our 254-bed facility must operate in crisis management mode. Thankfully, a key solution to our daily patient flow struggles has also been invaluable during two recent capacity surges.

The Struggle to Manage Throughput

Providence Holy Cross experiences more than 62,000 annual ED visits, occupancy levels often over 100%, a chronic labor shortage and rising acute admissions. Our ongoing struggle has been to admit and care for more patients with the same scarce staff, without sacrificing quality. For the average 300-bed hospital, reducing length of stay (LOS) by half a day is equivalent to adding 25 beds. Looked at another way, it is equivalent to hiring 18 full-time nurses.

Between 2004 and 2008, we implemented 52 improvement strategies related to throughput. All important pieces of the puzzle, but we had yet to unify them, communicate them and sustain the gains. And despite the improvements, we still had inefficient bed turn rates that left too many patients waiting in the ED, ICU and PACU. Bed control staff was still unaware of real-time bed availability, and discharge plans were not broadly communicated.

In McKesson's [Horizon Enterprise Visibility™](#) electronic tracking board, we saw the potential to consolidate our efforts. Using this geospatial platform to broadcast relevant patient data would have a clinical impact while promoting data accuracy, positive behavioral changes and proactive management. Plus, we saw the clear opportunity to leverage this platform for disaster preparedness.

Immediate Operational Improvements

In May 2008, we went live on the system. Within the first three months alone, year-over-year comparisons showed the following gains:

- 11.5% increase in inpatient admissions
- 16.3% increase in ED visits
- 10.6% decrease in average length of stay
- 25.3% decrease in # of patients LWOBS (left without being seen)
- 35.8% decrease in % of patients LWOBS
- 53.3% decrease in EVS (environmental services) total bed turnaround time
- 85.0% decrease in admission turnaround time

The process redesigns had helped us define the "ideal state" we were seeking, but it was our electronic tracking board that tied all of those efforts together — and visibly holds us to that ideal.

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Matching Capacity Management to Disaster Response (Cont.)

Disasters Test Our Preparedness

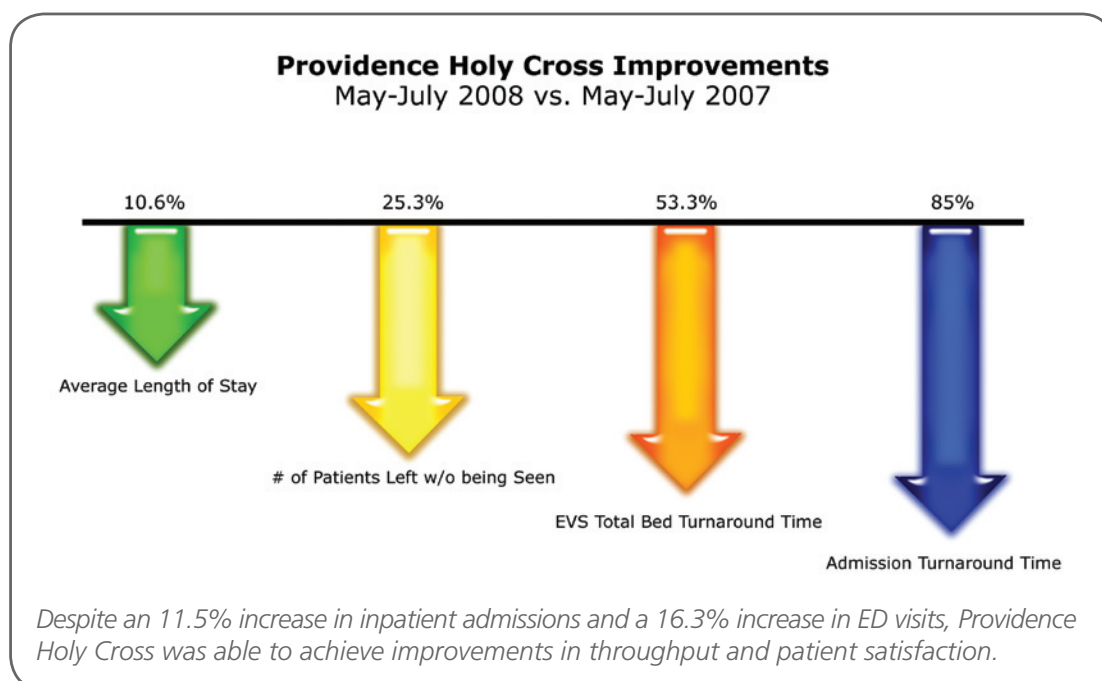
Train Wreck Tests Throughput – In September, the head-on crash of a Metrolink commuter train with a freight train killed 25 people and left 135 injured. In addition to the victims treated at the scene, 86 people were triaged to 15 area facilities, including ours. When the alert came, a glance told us we were already at 110% occupancy. We notified physicians with potential step downs and discharges to evaluate those patients right away to free up beds. We also set up beds in our infusion center (which we also monitored on the tracking board). We were able to take 17 patients, including five in critical condition — far more than any other hospital could accept.

Santa Ana Winds Blow Wildfire Too Close for Comfort – Scarcely a month later, we braced for the worst again when two massive wildfires in the vicinity burned out of control, threatening to require evacuation of nearby 377-bed Olive View-UCLA Medical Center — and we were at 102% occupancy. We prepared contingency plans to take in those patients and even for our own evacuation. The enterprise tracking board helped us to see much of the overall picture. Fortunately, the fires were contained — this time. However, more recently, wildfires raced through the valley again, and Olive View did require evacuation when flames surrounded the building, its generators failed and smoke filled the lower floors. We were able to assist by taking many of their most critically ill patients.

People Hate it When I Round

The silver lining to disasters like these, if there is one, is that they force everyone to understand the importance of always knowing how full we are, how many patients are waiting for beds, and what each individual can do about it. I want everyone to feel our patients' pain when we are over capacity. Admittedly, some people hate it when I round now. "Why has that pending discharge been there for the last 8 hours? When is the patient going home?" Or, "That blood's been ready for 25 minutes. Why hasn't anyone pulled it and started the transfusion?" Visibility into all of these actionable items adds up. And you really start to see the difference it can make in the delivery of care.

Derek Berz is assistant administrator of Providence Holy Cross Medical Center in Mission Hills, Calif., part of Providence Health and Services. Among its many honors, Providence Holy Cross received Magnet®, Baby Friendly and STEMI designation in 2007 and has earned HealthGrades awards for Women's Care (2005-2009), Stroke Care (2008) and overall Clinical Excellence (2006-2008). It has been verified as a Level II Trauma Center by the American College of Surgeons.



Learn More

[IHI: Getting Started and How to Improve](#)

[IHI: Optimizing Patient Flow in Acute Care Settings](#)

[AHA Quality Center: Improving Patient Flow](#)

[Visual Controls in Healthcare](#)

Performance Strategies



Improve Care & Capacity with At-a-Glance Enterprise Visibility

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Managing Multi-Site Patient Flow with a Centralized Operations Center



By Teresa Conley, RN, MBA, MSN, DPA
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St. Rose Dominican Hospitals



Vegas Area's Population Growth Strains Capacity

Visitors to Las Vegas know that it is like no other city in the world. As it has grown, so has [St. Rose Dominican Hospitals](#) (St. Rose), which has served the Southern Nevada area for 60 years. The region is synonymous with tourism, where every new hotel room is estimated to create two direct jobs and two indirect jobs. While the country's current economic downturn may have some impact, Clark County's population is projected to increase from 2 million people today to nearly 3 million people by 2020.

A member of [Catholic Healthcare West](#) (CHW), today St. Rose is a 511-bed network comprising three campuses: Siena, Rose de Lima and our newest facility, San Martin, which opened in November 2006. As the population around us has continued to boom, we have sought to maintain high-quality care while grappling with daily occupancy rates as high as 120 percent. Despite our best efforts, makeshift patient rooms divided by curtains in corridors are the norm rather than the exception.

A Centralized View of Capacity for Quick Patient Placement

In 2005, St. Rose conducted a throughput analysis based on recommendations from the Advisory Board's "Breakthrough Capacity Management" research. The following year we implemented a consolidated operations center on our main Siena campus in order to centralize patient placement and staffing functions across all three facilities. Key to the center's success is McKesson's [Horizon Enterprise Visibility™](#) enterprise tracking board solution, which we implemented in 2007 at all three hospitals.

Bed requests, bed assignments, patient movement and bed turns can all be viewed on large, electronic whiteboards in the operations center and throughout each facility. A daily census "dashboard" highlights capacity issues, staffing issues and transfer availability over a 24-hour period. With this insight, we've been able to implement an ED transfer process whereby patients can be admitted to available beds with the right level of care at any campus. Now soon after arrival, we can offer patients in holding areas the option to stay where they are with no guarantee of a permanent room or immediately transfer to a private room at our new facility 15 minutes away.

St. Rose's Commitment to Collaboration

As with any implementation, the technology is only as good as the processes behind it and the adherence to them. In this case, patient flow can only be improved if everyone involved in the care process learns to rely on the electronic tracking boards and acts on the information that they see. They must also use the enterprise tracking board to enhance other forms of communication, not replace them. At St. Rose, we encourage what we call COC, or "commitment to collaboration," over independent action. The enterprise tracking board helps drive organizational alignment by putting everyone on the same page. It also helps ensure process compliance by broadcasting visual reminders of staff accountability to each other and to the patient.

Sustained Gains from New ED Transfer Process

By centralizing patient placement and staff management, and cross-training operations center staff, we have been able to reduce the number of FTEs required for these functions from 30 to 11. Within two months of implementing the new ED transfer process in December 2007, we began efficiently transferring more than 200 ED admissions per month to a bed with

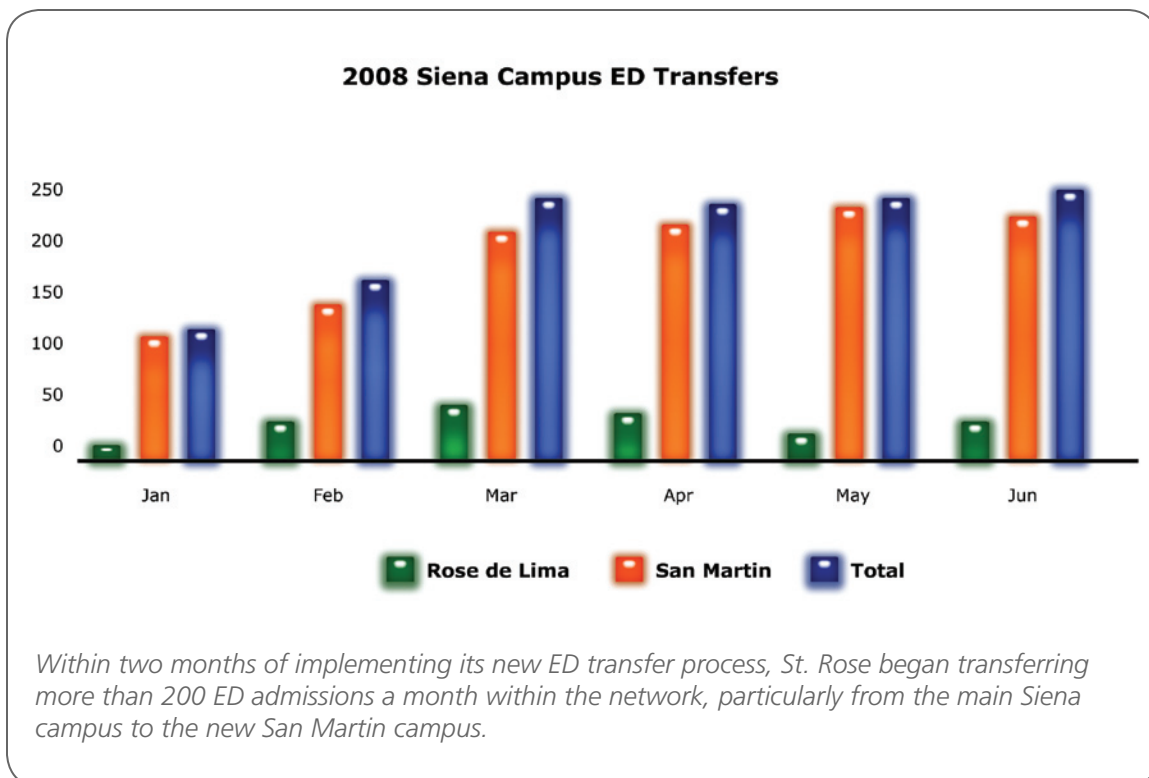
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Managing Multi-Site Patient Flow with a Centralized Operations Center (Cont.)

an appropriate level of care within the network. The ability to make these transfers has helped the Siena campus maintain an average patient satisfaction score above 90% despite continually running at full capacity.

All of this has not gone unnoticed by our 41-hospital parent corporation. In July 2007, Horizon Enterprise Visibility was named CHW's "patient flow gold standard" based on the results here at St. Rose.

Teresa Conley, RN, MBA, MSN, DPA, is the chief operating officer at Catholic Healthcare West (CHW)/St. Rose Dominican Hospitals-Siena Campus. In 1990 she began holding senior nursing executive positions at hospitals throughout Southern California and has been with CHW since 2001. CHW is the eighth largest hospital system in the nation.



Learn More

[Advisory Board: Maximizing Hospital Capacity](#)

[Improved Patient Care At-a-Glance](#)

[RFID: Increase Throughput with Tracking](#)

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Oakwood Boosts Core Measure Compliance While Improving Patient Flow



*By Monica Donofrio, RN, BS, CPHQ
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Thanks for the Memories, But “Shelve” the Manual Bed Board

Two years ago, [Oakwood Hospital and Medical Center \(Oakwood\)](#) set out to replace our original 1953 bed board. The board was a 632-slot shelving system that held color-coded cards with dog ears, symbols and clips denoting patient types. We were looking to do more than expel an eyesore. What we didn't know was how much our new system would ultimately improve not only patient flow, but also regulatory compliance and quality of care.

Since opening, Oakwood had relied on the same manual patient placement system. Yet by 2006, as a teaching hospital and hub of a four-hospital system, we were seeing more than 88,000 ED patients a year. Close to 150 patients a month waited more than four hours for a bed. A typical patient placement required five phone calls. Dedicated staff members did nothing but walk the halls looking for empty beds. And care team members had no way of identifying the day's probable discharges, making it difficult to prepare those patients for timely departures.

Our Enterprise at a Glance

In June 2007, we finally left the mid-20th century behind and went live on McKesson's [Horizon Enterprise Visibility™](#) solution. Information from our clinical, ADT, housekeeping, RFID and other systems is intuitively displayed against the hospital's floor plan so everyone shares the same up-to-date information. The addition of this enterprise tracking board provides our staff with real-time, at-a-glance views of patient status and location that put everyone involved in the care process on the same page.

- Nurse managers huddle in the “war room” and rely on seven electronic whiteboards (plasma screens) to see what's going on throughout our large campus while reviewing shift-end reports and making staffing decisions.
- In the patient placement center, bed managers can view the hospital at a glance or toggle quickly among the hospital's 28 units to expedite transfers to the appropriate level of care.
- In the physician lounge, specialists can quickly find their patients, see if they are in their rooms and check room availability on their units.
- Patient charts are now monitored by radio frequency identification (RFID) tags, which enable physicians and others to quickly note on the board where their patients are so they can round more efficiently.
- On patient floors, nurses no longer have to continually log into a computer to see if lab results are back, or medications or blood products are ready — intuitive icons on the board let them know at a glance.
- Timed icons count down time remaining until scheduled ambulance transfers so care team members can make sure patients are ready when the ambulance arrives.
- Icons identify core measure patients and prompt clinicians to administer all interventions within required timeframes and provide the proper patient education and discharge instructions.

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Oakwood Boosts Core Measure Compliance While Improving Patient Flow (Cont.)

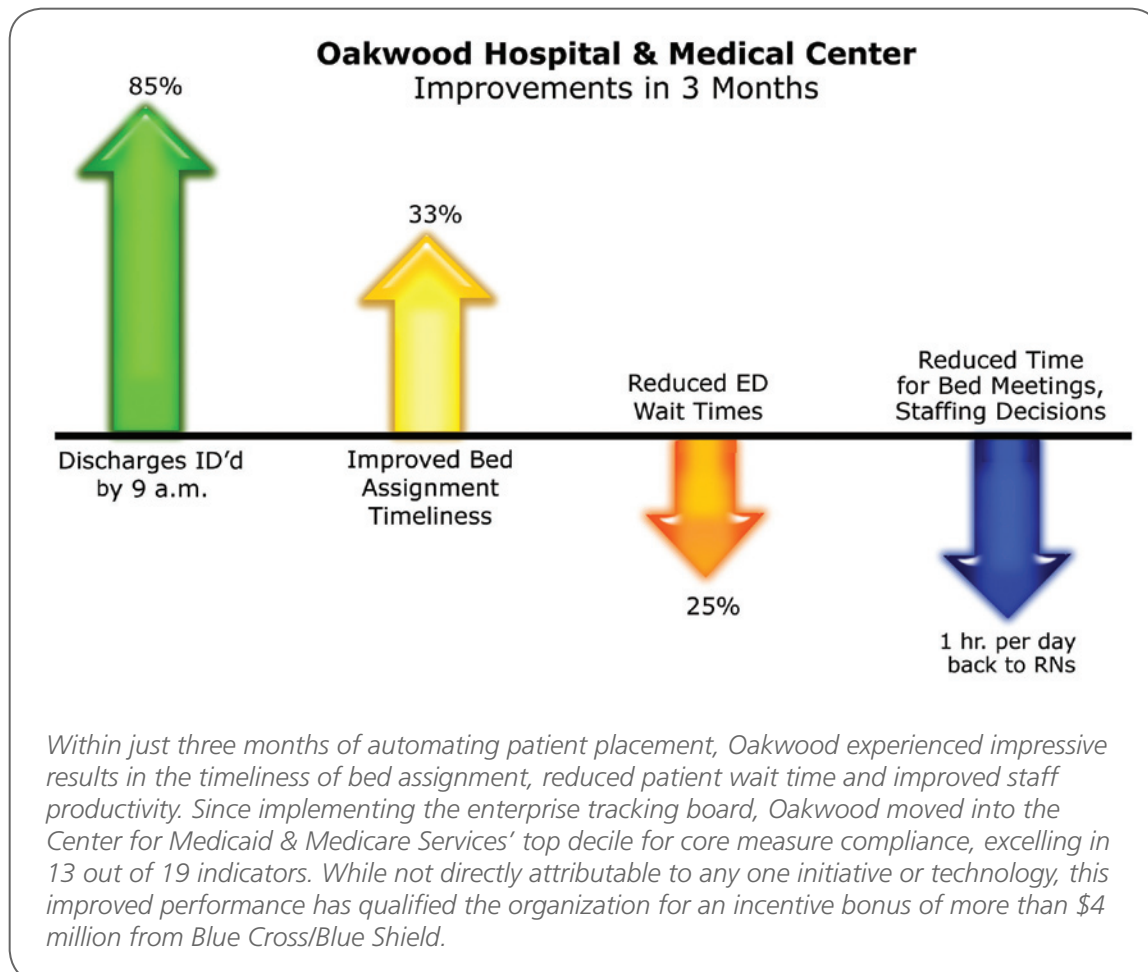
Getting Time Back for Direct Patient Care

Within just three months of automating patient placement, we have seen impressive results:

- Oakwood improved bed assignment timeliness by 33%, which helped reduce excessive ED wait times by 25%.
- Staff members who formerly hunted for hidden beds have been redeployed.
- Each day's probable discharges are now identified and broadcast by 9:00 a.m. over 85% of the time, helping to mobilize everyone involved in the care process
- With real-time census and other key information readily available, staffing decisions are more accurate and fewer bed meetings are needed. This has given at least an hour a day back to RNs for direct care and nursing leadership for managing that care.

Since implementing our 21st-century whiteboard, we have moved into the Center for Medicaid & Medicare Services' top decile for core measure compliance, excelling in 13 out of 19 indicators. While not directly attributable to any one initiative or technology, this improved performance has qualified the organization for an incentive bonus of more than \$4 million from Blue Cross/Blue Shield. That's something our dear old bed board just couldn't provide.

Monica Donofrio, BS, RN, CPHQ, is the senior director of care management and patient access at Oakwood Hospital and Medical Center, the hub of Oakwood Health System, a four acute-care hospital system in Dearborn, Mich. She oversees case management, social work and palliative care services as well as direct admissions, medical necessity screening and bed management for the 632-bed teaching hospital. Ms. Donofrio is a Six Sigma Black Belt. In 2007 Oakwood Health System won a Michigan Quality Leadership Award.



Learn More

[Oakwood: A Room with a View](#)

[Berwick Book: Leadership for Smooth Patient Flow](#)

[N.E. Georgia MC: Hospital Room Service](#)

[Addressing Capacity without Physical Expansion](#)

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Bottlenecks Make Patient Flow a Safety Issue



*Roberta Fruth, RN, PhD, FAAN
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Joint Commission Resources/Joint Commission International*



Tracing the Bottlenecks of Care that Affect Patient Safety

The [Joint Commission](#) first introduced a leadership standard relating to patient flow in 2005, citing patient safety concerns related to care delays. Not until January 2008, however, was a new patient flow system tracer introduced. The tracer, as noted in the 2008 issue of *Joint Commission Perspectives*, was developed in part because Joint Commission surveyors were finding that “treatment delays, medical errors, and unsafe practices thrive during times of patient congestion and can lead to sentinel events.” Like other tracers, it puts muscle behind a pre-existing standard.

Perspectives, was developed in part because Joint Commission surveyors were finding that “treatment delays, medical errors, and unsafe practices thrive during times of patient congestion and can lead to sentinel events.” Like other tracers, it puts muscle behind a pre-existing standard.

The 2005 Hospital Accreditation Standard LD.3.15 requires hospital leadership “to develop and implement plans to identify and mitigate impediments to efficient patient flow throughout the hospital.” The Joint Commission clearly views patient flow as a system-level challenge, as do the Institute of Medicine (IOM), the Institute for Healthcare Improvement (IHI), the American College of Healthcare Executives (ACHE), and a growing consensus of other experts.

Breaking It Down – Four Safety Issues from Bottlenecks

Patient flow bottlenecks affect patient safety and care quality in four ways:

- **Access.** Access issues usually manifest in terms of ED overcrowding. Healthcare organizations often address these issues by expanding the ED or post-anesthesia care unit (PACU). This is a short-term fix that treats one symptom of a much larger problem — but exacerbates it in the long run.
- **Care delays.** The longer someone waits in the ED, the sicker they get and the more likely they are to need inpatient care. And what about direct admission patients whose care is delayed when they’re bumped for ED patients?
- **Comparable care regardless of location.** Treating patients in holding areas not meant for such treatment isn’t safe. ED and PACU nurses aren’t trained to conduct assessments and administer scheduled medications; they’re trained to provide transient care.
- **Availability of resources for care.** Physicians are also frustrated when they have to hunt for their patients in holding areas that lack ample space and access to support services.

Problems in these four areas often lead to closer scrutiny by the Joint Commission, as it warned when it instituted the patient flow system tracer in March 2008: “Patient flow problems stress the hospital’s entire system. This stressed environment can lead to staff cutting corners while delivering care, which may cause noncompliance with many Joint Commission standards, core measures, and National Patient Safety Goals.”

Head to Bed, Foot to Door

Although the new patient flow tracer ups the ante, the Joint Commission recognizes the scope of the problem and doesn’t expect healthcare providers to fix everything overnight. Surveyors are, however, looking for evidence that leaders are accepting

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Bottlenecks Make Patient Flow a Safety Issue (Cont.)

responsibility for patient flow issues, evaluating the problems at a system level, identifying problems, and putting plans in place for improvement. Still, many hospitals don't know where to start.

The answer is in the data. The best place to start is with a two-part metric known as "head to bed, foot to door." This refers to the time from when the admission order is entered to when the patient is in a bed, and from when the discharge order is entered to when the patient is out the door. By determining current turnaround times, establishing goal times and holding people accountable, organizations can begin to eliminate the bottlenecks that threaten patient safety and focus their efforts on providing high-quality care.

Dr. Fruth has more than 30 years of experience in healthcare operations and education in hospital, ambulatory and international settings. As a consultant, she brings educational and operational expertise in data management, performance improvement, clinical safety and team development to help organizations achieve their goals. Previously, Dr. Fruth served as chief nurse executive and vice president of patient services at St. Joseph Hospital in Chicago.

Joint Commission: System Tracer Examines Effectiveness of Patient Flow

Beginning in January 2008, Joint Commission surveyors began conducting a new [patient flow system tracer](#) in hospitals and critical-access hospitals to identify problems with patient flow. The tracer is designed to identify bottlenecks that can affect patient safety, causing treatment delays, medical errors and unsafe practices. Patient flow problems often start in the emergency department, critical care units and surgical areas, but can be found throughout the hospital.

The tracer puts muscle behind a 2005 standard, [LD.3.15](#), which details leadership responsibility for evaluating patient flow, accepting responsibility and making necessary changes to improve throughput. The elements include:

- Assessing the impact of patient flow issues on patient safety and developing a plan to alleviate the impact.
- Planning that encompasses the delivery of appropriate care to admitted patients held in temporary bed locations.
- Sharing accountability (leaders and medical staff) to develop processes to support efficient patient flow.
- Planning for delivery of adequate care to non-admitted patients in overflow locations.
- Using indicators that measure the patient flow process, including bed space, efficiency, safety and support services
- Reporting results to leadership and individuals responsible for patient flow.
- Improving inefficient or unsafe processes essential to the efficient movement of patients through the organization.
- Defining criteria to guide decisions about initiating diversions.

If patient flow issues are identified during the onsite survey, the surveyor will interview hospital leaders about actions they have taken to address the issues that arise from inefficient patient flow.

Recorded Webinars

[HIMSS: How Visual Controls Aid Healthcare](#)

[Addressing Patient Flow Issues](#)

Performance Strategies



Improve Care & Capacity with At-a-Glance Enterprise Visibility

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Put Everyone on the Same Page to Improve Care and Flow



*Billie Whitehurst, RN, MS
Chief Nursing Officer
McKesson Provider Technologies*

Playing Your A-Game with an At-a-Glance Enterprisewide View

Football season is the favorite part of the year for many of us. Take a moment to think about the wonders of the football scoreboard. With a quick glance, anyone familiar with the game's fundamentals can come in during the third quarter and instantly be on the same page as everyone else in the stadium. Now imagine if each time someone completed a first down or kicked a field goal, everyone in the stadium had to be called or paged. Sounds ridiculous — yet that's how most hospitals are run today.

In healthcare, the football scoreboard's equivalent is the enterprise tracking board. Instead of a tracking board for one department, this emerging technology provides patient visibility across the hospital or a multi-hospital enterprise. McKesson's solution, [Horizon Enterprise Visibility™](#), uses visual controls to broadcast real-time, at-a-glance information about patient status against the hospital's floor plan. Information aggregated from clinical, ADT, housekeeping, transport, location and other systems is displayed on large, electronic whiteboards throughout the hospital, which helps:

- **Drive organizational alignment** by putting everyone on the same page
- **Ensure process compliance** by increasing transparency and accountability
- **Promote proactive behavior** by enabling people to anticipate what they need to do next

What's Your Perspective on the "Goal" of New Technology?

An enterprise tracking board addresses organizational challenges from multiple perspectives — the C-Suite, chief nursing officer (CNO) and chief information officer (CIO).

The CEO, COO and CFO's Perspective

When deciding whether to approve a new technology investment, CEOs, COOs and CFOs want solutions to the issues that keep them up at night, such as patient flow. The plight of hospitals experiencing ED overcrowding has been making headlines for years, but the real cause of ED challenges is usually "downstream" capacity issues in areas such as the ICU and surgery. Giving the people who make care decisions visibility into what's going on in the ED as well as the rest of the hospital is critical to understanding where bottlenecks occur and fixing them. An enterprise tracking board also helps prevent diversions by speeding bed turnarounds by up to 20 minutes so patients can be placed in the right bed more quickly.

The CNO's Perspective

CNOs want their managers to be able to walk onto a unit and immediately know what's happening, where any special patient populations are and who might need help. Amidst an ongoing nursing shortage and aging workforce, they also want to minimize agency costs by keeping frontline nurses happy. An enterprise tracking board helps make nurses' lives easier by saving them one hour per shift per day, by eliminating up to 7-10 phone calls and 3-4 wasted logins. Instead, nurses can instantly see:

CONTINUED ON PAGE 10

Put Everyone on the Same Page to Improve Care and Flow (Cont.)

- Where their patients are and how long they've been there
- Whether they have any new orders or results
- Whether a patient is being transferred off the unit
- Whether they are getting any new patients that shift

While visibility doesn't replace interdepartmental communication, it reduces many of the inefficiencies that can mark the difference between a smooth shift and a hectic one.

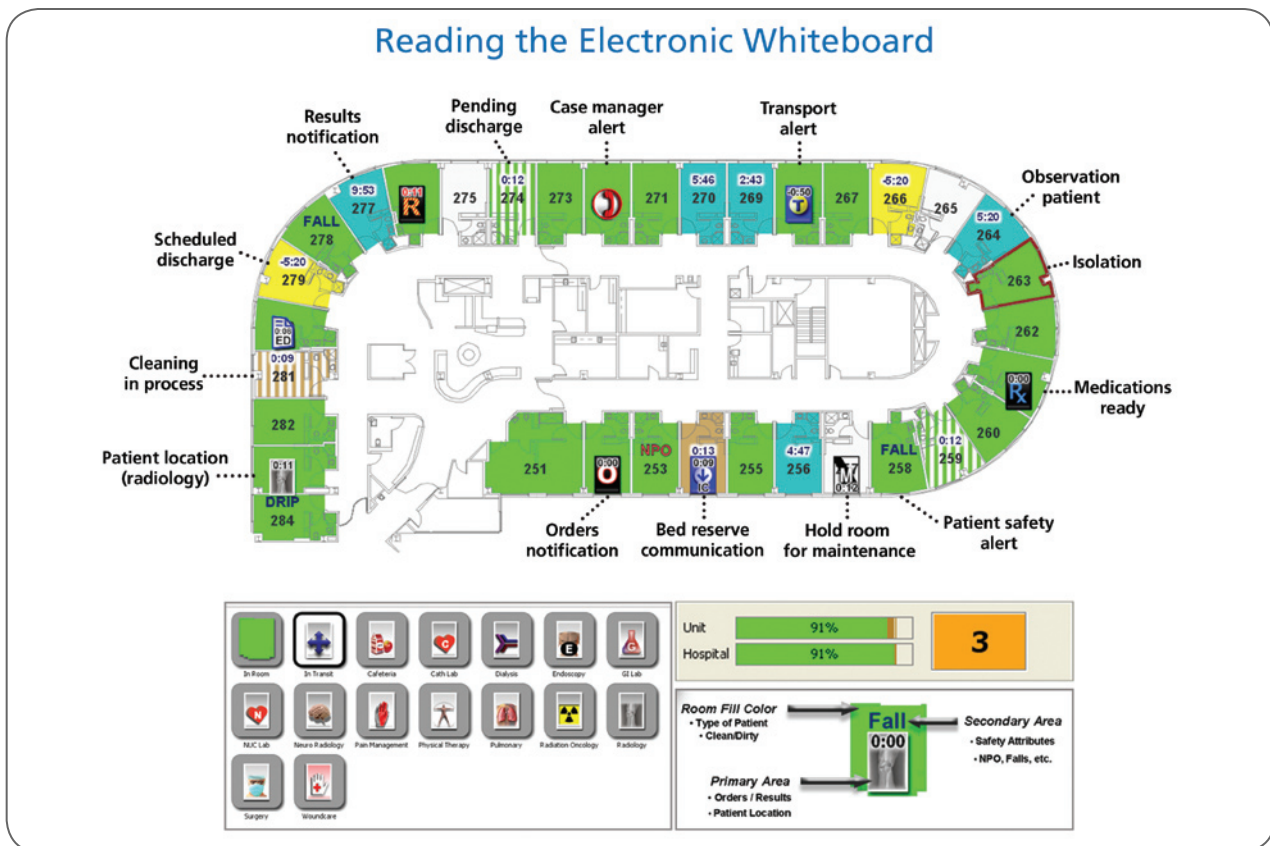
The CIO's Perspective

CIOs are under constant pressure to maximize adoption of existing technology and ensure that incremental investments provide a quantifiable ROI and leverage what is already in place. McKesson's enterprise tracking board installs in less than 100 days and typically returns a full ROI in less than 2 years based on uncovering 5-10 "hidden" beds per day. By broadcasting information from source systems for everyone to see and use, it leverages the value of those systems and increases the accuracy of the information they contain because it is visible to all staff to question.

The Playbook for this Emerging Technology

Patient flow is an urgent, costly challenge that is addressed most effectively with an enterprise tracking board. But the solid ROI provided by uncovering hidden beds and uncorking bottlenecks is just the beginning. Imagine how you could enhance revenue, care continuity and patient satisfaction by alerting central supply, financial counselors, outpatient treatment centers and other stakeholders of all pending discharges? Oakwood Hospital and Medical Center in Dearborn, Mich., is doing this today and reaping the benefits, simply by listening to employees who came forward with good suggestions about how to leverage their enterprise tracking board. And we are just beginning to tap the potential to help customers improve compliance with timed core measure and other care protocols.

Knowing the "score" every minute for every patient across your enterprise gives your organization the chance not only to achieve its clinical and patient flow "goals" but to change the game entirely.



Put Everyone on the Same Page to Improve Care and Flow (Cont.)

Billie Whitehurst, BC, RN, MS, is vice president and chief nursing officer for McKesson. Prior to that she was the general manager for McKesson's medication safety solutions, coordinating and developing McKesson's unified strategy for safe medication administration and patient safety. She has also served as vice president and solution line manager for the company's physician and nursing solutions.

Grant \$\$ Available for Disaster Preparedness Efforts

In 2008, St. Rose Dominican Hospitals (featured [in this issue](#) of Performance Strategies) received grants of \$100,000 each for its three campuses to improve disaster preparedness. The grants were awarded by the Department of Homeland Security's Federal Emergency Management Association (FEMA) under its Urban Areas Security Initiative: Nonprofit Security Grant Program. The program awarded 309 grants in 2008 to nonprofit organizations within eligible urban areas in 29 states considered to be at high risk of terrorist attack.

In November 2008, FEMA released FY2009 application guidance for 14 federal grant programs. The grants total more than \$3 billion available in federal funding to assist state and local governments in strengthening community preparedness. For more information, visit the [FEMA Web site](#).

Related Solutions

[Horizon Enterprise Visibility™](#)

[Horizon Emergency Care™](#)

[Horizon Surgical Manager™](#)

[Horizon Real-Time Location System™](#)

[Enterprise Scheduling](#)

[McKesson Performance Analytics™](#)