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URGENT
Matters

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THE GEORGE WASHINGTON UNIVERSITY
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URGENT MATTERS LEARNING NETWORK II ISSUE BRIEF 1

Improving Patient Flow & Reducing Emergency Department (ED) Crowding

*Robert Wood Johnson Foundation-Supported Learning Network
of Hospitals Measure ED Performance and Improve Quality*



In today's increasingly strained health care environment, our nation's hospital emergency departments (EDs) provide a critical primary and emergency care safety net for Americans in every community. Yet over the last decade, studies have deemed the country's EDs to be at a breaking point, weighed down by crowding as patient volumes have steadily increased, while at the same time, capacity has decreased.

"EDs are the one place that is always open, where everyone knows they can turn to get the emergency medical care that they need when they need it," said Bruce Siegel, MD, MPH, director of the Center for Health Care Quality at the George Washington University Medical Center (GWUMC) School of Public Health and Health Services, and a nationally recognized expert on emergency department operations. "With data showing that many are ready to collapse under the weight of crowding, it is clearer than ever that we need tools and strategies to address this key problem facing our nation's health care system."

Dr. Siegel leads the *Urgent Matters* Learning Network II (LN II), a collaborative of six participating hospitals nationwide that are working together over an 18-month period to identify, develop and implement strategies to improve patient flow and reduce ED crowding.

The hospitals now participating in Urgent Matters LN II are following in the groundbreaking footsteps of the first Urgent Matters Learning Network.

The initiative is funded by the Robert Wood Johnson Foundation and managed by the Urgent Matters Team at the Center for Health Care Quality at the George Washington University Medical Center School of Public Health and Health Services.

A System Bursting At the Seams

According to the U.S. Centers for Disease Control and Prevention, the number of annual ED visits in the U.S. grew from 90.3 million in 1996 to 119.2 million in 2006. Meanwhile, the number of hospitals with operating EDs in the United States declined from 4,019 in 1991 to 3,833 in 2006. The result was that the number of ED visits rose 32 percent, while the number of hospital EDs across the country dropped almost 5 percent – leaving an increasing number of patients concentrated in a smaller number of EDs.

"Crowding is a problem that has been faced by every hospital operating an ED over the last two decades, but it has been happening with increasing frequency in recent years," explained Vickie Sears, MS, RN, assistant director for quality improvement, GWUMC. "Health care leaders take it seriously, because they recognize that it's not just something that impacts patient satisfaction or efficiency. There are many potentially serious, negative consequences for health care access, quality and patient safety that can result – in both the ED and beyond."

Indeed, patients entering an overcrowded ED face longer wait times for care, often leave the ED without being seen and without obtaining the care they need. Research has also shown that increases in ED crowding are associated with increased waiting times for painkillers and antibiotics, greater mortality and more adverse health care events. Given the high degree of clinical uncertainty with patients presenting in an ED, the disorder of a crowded ED may lead directly to poor quality care. With 119 million patients visiting the ED annually, millions of Americans may not be receiving safe and timely treatment.

In 2006, the Institute of Medicine (IOM) released its landmark report *Future of Emergency Care: Hospital Based Emergency Care at the Breaking Point* describing the dramatic deficiencies in America's emergency care system. The report's findings charged hospitals to: 1) reduce crowding by improving efficiency and patient flow, using available strategies and tools, and the medical community to 2) develop evidence-based indicators of emergency care performance. Both of these elements are equally critical for improving patient flow and reducing ED crowding and form the foundation for the work of Urgent Matters.

About the Urgent Matters Initiative

Bringing together six diverse hospitals to tackle the vexing issues of patient flow and ED crowding, Urgent Matters LN II has three key goals:

- 1 Rigorously evaluate the implementation of strategies for improving patient flow and reducing ED crowding within the context of a hospital learning network;
- 2 Advance the development of standard performance measurement in the ED;
- 3 Promote the spread of promising practices to a wider audience and variety of hospitals.

Working together through a 'learning network' structure, the hospitals have been testing new ideas, quantifying results and exchanging lessons learned since September 2008. Program successes will be shared nationwide in the spring of 2010, giving other hospitals and



stakeholders concrete and tested examples of effective promising practices and interventions that they may adopt in their own EDs.

The hospitals now participating in Urgent Matters LN II are following in the groundbreaking footsteps of the first Urgent Matters Learning Network, which provided breakthrough research on patient flow measurement and improvement. From 2002–2004, 10 hospitals implemented performance measures, assessed existing processes, and used techniques of rapid cycle change to improve ED throughput and output.

Building upon those earlier successes, in addition to the strategies intended to improve ED flow, Urgent Matters LN II hospitals are focusing on advancing the development of quality improvement performance metrics in EDs by field-testing and evaluating ED performance measures for the first time.

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quality. What it demonstrated was that hospitals could dramatically improve patient flow and decompress their EDs without investing significant financial resources,” said Vickie Sears. “In this second generation of Urgent Matters, we are looking to highlight best practices that have been evaluated, and share the evidence behind how well these practices improve quality of care in emergency departments. We also want to field test ED performance measures, which we hope will ultimately be used by all hospitals.”

Measuring Success

Urgent Matters LN II hospitals will be pioneers in the field of ED quality improvement by becoming the first hospitals in the U.S. to field-test ED standard performance measures. Hospitals will be utilizing seven select performance measures, three of which are National Quality Forum (NQF)-endorsed and are being considered by the U.S. Centers for Medicare and

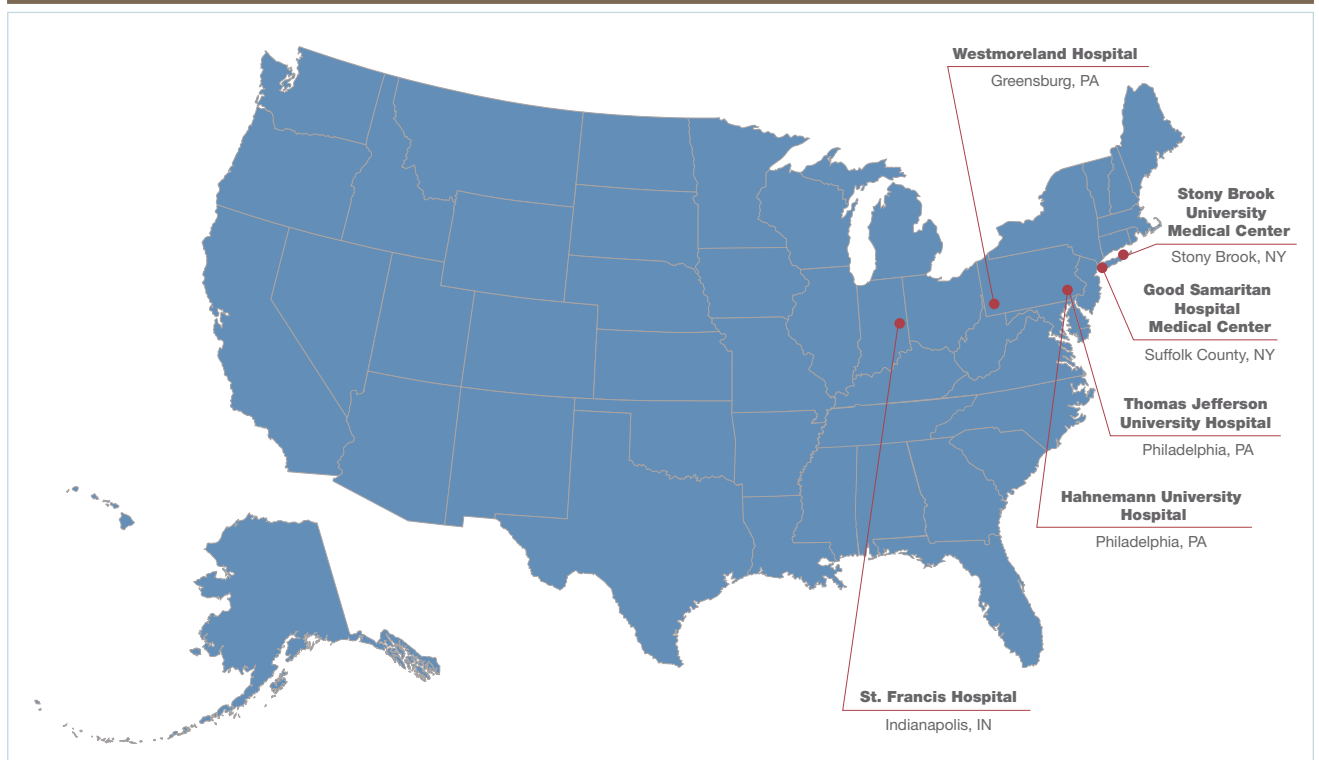
Medicaid Services (CMS) for inclusion in the public reporting system in 2012.

Unlike other clinical areas, such as cardiac care, the field of emergency care currently lacks a uniform set of metrics which inform providers, administrators, and consumers about the status of their ED’s care. Without meaningful ED performance measures, it is impossible to gauge the impact of new interventions, strategies, or tools. Standardized performance measures create common terminology and provide an opportunity for comparison and improvement.

Following an initial period of data collection training and implementation, the hospitals are now collecting data for seven ED standard performance measures and reporting them on a regular and continuous basis to the Urgent Matters team.

“Due to the nature of its services ED care and processes have always been seen as very unpredictable and difficult to measure,” explains Mark McClelland, MN, RN,

Participating Hospitals:



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- 1 **Throughput for Admitted Patients:** The median time from ED arrival to the time of ED departure for patients admitted to the facility from the ED.*
- 2 **Throughput for Discharged Patients:** The median time from ED arrival to the time of departure for patients discharged from the ED.*
- 3 **Time to Pain Management for Admitted Patients:** The median time from ED arrival to time of initial pain medication administration for ED patients with principal diagnosis of long bone fracture.
- 4 **Time to Pain Management for Discharged Patients:** The median time from ED arrival to time of initial pain medication administration for ED patients with principal diagnosis of long bone fracture.
- 5 **Median Time to Chest X-Ray for Admitted Patients:** Median time from initial chest x-ray order to time chest x-ray exam is completed.
- 6 **Median Time to Chest X-Ray for Discharged Patients:** Median time from initial chest x-ray order to time chest x-ray exam is completed.
- 7 **Admit Decision Time to ED Departure Time:** The median time from admit decision time to the time of departure from the ED for patients admitted to inpatient status.*

quality improvement leader for the Urgent Matters initiative. “But in recent years, with the help of demand forecasting technology borrowed from other industries, we are learning that ED care is more predictable than we had thought.”

Working in collaboration with the U.S. Agency for Healthcare Research and Quality (AHRQ) and the Health Research & Educational Trust (HRET), an affiliate of the American Hospital Association, the hospitals will also submit data to HRET which will be used to evaluate the impact and effectiveness of the improvement strategies tested by each hospital.

“As the evaluation partners for this effort, we are trying to learn three things about the hospitals’ strategies,” says Megan McHugh, PhD, director of research at HRET. “What motivated, supported or impeded the implementation of the strategies? Did the strategies result in changes in patient flow, crowding and patient satisfaction? And, what resources were needed by the hospitals to adopt these strategies? The hope is that our findings will give other hospitals in communities across the country both the information they need to effectively evaluate which of these strategies may work for them, and the tools and resources they need to implement those strategies to improve their ED operations.”

“Ultimately, through the initiative and its evaluation, we hope to improve understanding of the factors that can facilitate or hinder the implementation of these or similar solutions to the problem of crowding,” explains Dina Moss, project officer at AHRQ. “We want to help other hospitals understand what resources they will need and what challenges to anticipate as they seek to actively address their own problems of ED crowding.”

Achievements Signal a Promising Future

In their first year of work, all six of the Urgent Matters LN II hospitals have made tremendous progress in their quest to improve patient flow and reduce ED crowding.

For many of the participants, the learning network has already sparked a dramatic culture change within their institutions.

“Being a part of an effort like Urgent Matters puts these ED issues front-and-center for the hospitals’ leadership in a way that they perhaps have never been before,” says Sears. “It validates the problem for the team, for the senior leadership and for the institution – giving them the ability to move forward and acknowledge that ED crowding and throughput are issues for the **entire** system and need to be addressed from a system-wide perspective.”

Improving Internal Communications: Westmoreland Regional Hospital

For the team at Westmoreland Regional Hospital in Greensburg, Pennsylvania, the decision to participate in Urgent Matters was an easy one.

“Like many organizations, we have struggled with maintaining acceptable throughput rates as the number of visits in our ED has climbed over the years,” said Maryann Singley, vice president of clinical services and chief nursing officer, Westmoreland Regional Hospital, and the hospital’s Urgent Matters project director. “We know that addressing it is a complicated strategic problem and are always looking for new ways to tackle it. The Urgent Matters initiative gave us another avenue.”

Examining their processes, the Westmoreland Regional team realized that there was a deficit in their internal communications processes. Thus, the hospital decided to focus its strategy on improving communications between the ED and inpatient units to improve flow throughout the system. Since then, they have been quick to dive in – implementing and testing a number of diverse strategies for improving communications, raising awareness of ED crowding and throughput issues at **all** levels in the organization and building support.

In addition to aiming for improvements in how they deliver care within the Westmoreland community, the team is focused on the bigger picture of what the Urgent Matters work means for developing measurable ED interventions.

“Knowing that the knowledge and measures we are gaining from this work will be disseminated across the country, improving ED care everywhere, is something to be proud of” said Kim Lopes, RN, manager of nursing services at Westmoreland Regional. “It really hits home that we are all working together collaboratively learn from each other’s successes and improve the nation’s ED system.”

HOSPITAL METRICS

Location: **Greensburg, PA**

Number of Emergency Department Visits
Annually: **Approximately 45,000**

Number of Beds: **301**

Ownership: **Non-Profit**

Affiliations: **Excela Health**

Teaching Status: **Yes**

“I would say the one lesson that every hospital in this initiative has learned – regardless of the strategy they are pursuing – is that you need buy-in from many departments to succeed in addressing these problems,” explains McClelland. “The participating teams are realizing the complexity of integrating their care with the hospital as a whole. Their work in Urgent Matters has allowed them to go out and say to their colleagues, ‘Ok, now you see why you have to work with us on this.’ They are now all getting into the trenches together.”

Having laid the groundwork for success through the tremendous amount of planning and implementation needed for the initiative’s success, the hospitals are now testing and refining improvement strategies while collecting and reporting their performance measurement data.

Lessons learned from the 18-month Urgent Matters initiative will be made available to hospitals nationwide through program products, presentations at national conferences, journal publications, and through the AHA network and publications.

Translating Understanding Into Action: Good Samaritan Hospital

“Our hospital has always had significant awareness of projects to address ED flow issues but where we have always had a problem was in translating that understanding into real action,” said Adhi Sharma, MD, chairman of emergency medicine at Good Samaritan Hospital Medical Center in West Islip, New York. “The Urgent Matters LN II program has really helped us bridge this gap, giving us the impetus we have long needed to take our improvement strategies to the next level.”

Since starting work, the Good Samaritan team has seen enormous success with their chosen change strategy of improving the time to treatment for ‘Mid-Track’ patients.

Recognizing the relatively high morbidity levels of non-urgent or mid acuity patients returning to the ED after leaving without being seen on a previous visit, the hospital chose to focus on a solution to this problem. The innovation currently being tested is a practice similar to Fast Track – where patients with minor medical emergencies receive prompt treatment and are sent on their way as quickly as possible – but for select complaints within the non-urgent ESI level 3 triage category, with the goal of improving how the ED processes such patients. The strategy so far has been a success and, if proven effective, the hospital hopes it can have larger implications for future ED redesign at hospitals everywhere.

For Dr. Sharma, though, the benefit of the Urgent Matters LN II initiative to Good Samaritan lies not only in the specific improvement strategies and measures that the hospitals will produce, but also in the way participation changes the hospital culture.

“Having participated in the first Urgent Matters Learning Network at my previous hospital, I saw firsthand how the initiative really pulled together the right people to make lasting improvements,” he explained. “While it will always be a challenge, there is no doubt that the stakeholders at Good Samaritan have come to the table more frequently and with more resolve to act than they would have without this initiative. It is a very rewarding thing to see in action.”

HOSPITAL METRICS

Location: **Suffolk County, NY**

Number of Emergency Department Visits
Annually: **Approximately 100,000**

Number of Beds: **437**

Ownership: **Non-Profit, Catholic Health Services of Long Island**

Affiliations: **Mount Sinai Hospital and Mount Sinai School of Medicine**

Teaching Status: **Yes**



“Developing national performance measures for EDs is just the first part of achieving exactly what the IOM report recommended,” McClelland says. “Once we have those in place, we can begin setting fair and balanced ED benchmarks and standards that will finally allow us to gain better insight into the work of every institution; from the little rural community hospital ED to the large urban teaching hospital ED. All hospitals can and should be required to perform on the same metrics, but we can’t begin to do that until we have uniform standards. The work of Urgent Matters LN II will help us get there.”

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For More Information

For more information about Urgent Matters, to subscribe to the Urgent Matters E-Newsletter or to download a copy of the final report from the program’s first Learning Network, *Bursting at the Seams*, visit www.urgentmatters.org or email info@urgentmatters.org.