

# Hospital Inpatient Capacity: Making Room for the Next Patient

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Hospital crowding is one of the top issues facing America's healthcare industry. Crowding can be defined as exceeding the carrying capacity. According to a recent report by the American Hospital Association, almost half of U.S. hospitals are at or over capacity.<sup>1</sup> A report published by the Institute of Medicine (IOM) indicates that the past decade has seen an increase in the number of patients being treated in Emergency Departments (EDs), while the number of hospitals reporting ED visits is declining. The IOM also states that each year over half a million ambulances with emergency patients will be diverted to a treatment center that is farther away.<sup>2</sup> Communities are unable to access the appropriate medical care in the appropriate setting by the appropriate clinicians, compromised by the disparate system of medical records across hospital systems.

Furthermore, this capacity issue is making it difficult for healthcare systems to achieve the six aims of healthcare—care that is safe, effective, patient-centered, timely, equitable, and efficient—that are recommended by the IOM.<sup>3</sup> All of these aims are at risk when there are inadequate resources to provide care or resources are allocated inefficiently, which can lead to negative outcomes, long wait times, and poor patient satisfaction.

Although the most visible impact of crowding is on EDs, crowding is an issue facing the whole house and capacity management must be tackled by the entire organization. The federal government has started to take notice. Congress has introduced a bill to create a commission dedicated to examining factors driving effective ED care in addition to improving payments to certain ED physicians.

The capacity issues in the region were the main focus this past spring, when the Hospital and Healthsystem Association of Pennsylvania (HAP) held its 1st annual conference on Patient Capacity Management. Attendees felt a sense of urgency to do something about the capacity issues facing our systems. Main Line Health (MLH) had several attendees who brought discussions to the larger Jefferson Health System (JHS) level, specifically to the Chief Medical Officer, Dr. Stanton Smullens and the process improvement guru from Premier, Anthony Veeseey. What developed was the first JHS

Patient Flow Summit held on July 17th, 2007 at the American College in Bryn Mawr. Sponsors included JHS, MLH, and Premier, Inc.

Mutual interest in the issue of capacity management and open communication helped bring together the fragmented pieces of the capacity puzzle. The system recognized the critical need of a common vision for change and used the Patient Flow Summit as an opportunity to define that vision. Objectives included providing the skills, incentives, and resources to member organizations to work towards mitigating the impact of capacity problems.<sup>4</sup>

The Summit included presentations by member organizations showcasing specific capacity or throughput initiatives and projects implemented at various JHS facilities. Main Line Health-Bryn Mawr Hospital outlined how to improve the efficiency and effectiveness of patient flow within the hospital through interdisciplinary collaboration with a focused team approach. Bryn Mawr implemented solutions such as: dedicated fast care of non-urgent patients; fast track of lab testing; utilization of a patient flow coordinator; instant bed status alert; rapid admit nurse; and day-before-discharge program.

Frankford Hospital used rapid cycle teams to establish baseline metrics including improved patient satisfaction, decreased number of shifts holding patients, decreased amount of patients leaving prior to treatment, increased physician and staff satisfaction, and improved throughput times. Frankford identified clear goals such as: decreasing patient delays and access problems; improving the ability to rapidly identify the sickest patients and move them to the most appropriate level of care; and delivering patient care rapidly and moving patients to the appropriate part of the hospital seamlessly.

Albert Einstein Healthcare Network utilized integrated hospital-wide efforts to redesign ED processes and functions, including: establishing criteria for divert status; initiating ED care management program; utilizing criteria for admitting patients; and enhancing notification systems for ED crowding. Care Management was redesigned to include multi-disciplinary rounds, education and competency training, and the establishment of a resource center. A single point of accountability was established through a patient flow coordinator, while care and bed management software were utilized.

Thomas Jefferson University Hospital and JHS employed the use of a Bed Management Center (BMC) to improve patient flow. The BMC was led by a team of individuals from patient registration and logistics in addition to a bed officer. This team directed a bed board, admissions and discharges, and a bed management team (patient flow coordinator, housekeeping, and transport). Key performance indicators included: time the room is assigned; external transfers accepted; patient satisfaction; total hours a patient

is in pre-admission testing; and average number of patients boarded in the ED, in addition to others.

The purpose of the Summit was to spark discussions about what worked and what didn't work, and to solicit suggestions for improvement. Furthermore, participants had the opportunity to see the latest technology in the area of capacity management and ask questions of vendors who provide solutions which included bed management, resource tracking, and decision support. Evaluation of the Summit revealed the majority of attendees were able to achieve their objectives and found presenters to be effective. These evaluations will be reviewed to improve future JHS Summits.

The collaborative nature of this event fostered a candid dialog about where we are in the region with capacity issues, and more specifically, how JHS is dealing with the problem. Leaders throughout JHS are working to answer this question and discover, more importantly, how JHS *should* deal with the capacity issues in our region. Stanton Smullens, MD (Chief Medical Officer of JHS) and Nancy Valentine, PhD (Chief Nursing Officer of MLH) have organized a workgroup to ensure that the momentum of the Patient Flow Summit will not be lost. The leaders will engage the Senior Leadership at the member hospitals to look for areas of best practice and share the across all the organizations in JHS. With a specific and detailed action plan in place, JHS can move towards change and be successful in alleviating the stress that overcapacity has caused its member organizations.

Please address questions and comments to [hansont@mlhs.org](mailto:hansont@mlhs.org).

For more information about capacity issues in Pennsylvania visit the Hospital and Healthsystem Association of Pennsylvania's website on the Pennsylvania Hospital Capacity Enhancement Initiative at <http://haponline.org/quality/capacity/>.

## References

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