



Achieving World Class Emergency Department Performance

An innovative model for facility design and staff transition delivers breakthrough results:

	Old Hospital Adult/Ped ED	New Hospital Ped Only ED	% Improvement
Door to Provider	1 hr 1 min	22 min	64%
Average LOS: Discharge	3 hr 6 min	2 hr 5 min	33%
Average LOS: Admitted	4 hr 31 min	4 hr 6 Min	9%
LWBS	1.4%	0%	100%
Patient / Family Satisfaction	67%	90%	34%

Lee Health, Ft. Myers, Florida operates six hospitals and more than a dozen outpatient facilities. The system has been proactively renovating current facilities and adding new facilities to meet the growing demand. Their newest hospital is the Golisano Children's Hospital of Southwest Florida, which opened in May, 2017. Their Executive and Facilities Management teams realized that using traditional design processes would compromise their goal of creating best in class facilities and patient care outcomes. Relying on top-down blueprints and transplanting current department processes to new space would miss the opportunity to truly reinvent how they work. In collaboration with Opus Solutions, they set out to use facility design as a method to produce best in class performance. Getting the right design was not enough. Integral to the process was development of a method to transition staff from old to new, leaving inefficient work processes behind. When designing the new Golisano Children's Hospital, special focus was placed on the ED, and the results turned out to be phenomenal!



The Children's Hospital ED Design Experience

World class facilities design must incorporate both structural and cultural components. Sarah Sheffield, Special Projects Business Partner for this project, states, "In order to achieve our vision of world class care and performance metrics for the hospital and new ED, we developed a process that engaged front line staff from the very beginning. The idea was to leave old, inefficient work processes behind while empowering staff to innovate better ways for patients and providers to flow through the care continuum, minimizing wait times, redundancies and bottlenecks."

Together with the leadership team, they developed a five-step transition plan:

1. Culture of caring workshops that included executive leadership and all front-line staff
2. Current state value stream maps. Using data to identify improvement opportunities.
3. Table top simulations, followed by hard-hat walk through sessions in the new space
4. Training for all new equipment, including phone system, Voalte communication system and new department equipment. Over 500 people went through this training.
5. Patient flow simulations in the new space

The structural elements of design started with production of existing department value stream maps, enabling staff to clearly see areas for improvement in patient flow and care delivery. These sessions resulted in multiple innovations being implemented prior to moving into the new ED. Next, they held a series of hands-on workshops, where education continued on the key elements of Lean patient flow. This resulted in front-line staff designing their work space within the new ED blueprint. Finally, standard work was written, shared and approved for all job functions including providers.



The Results Are Amazing

Mary Kay Silverman, Director of Pediatric Emergency Services, proudly states: “Sharing the metrics really tells the story. Door to Doc times have dropped significantly, averaging around 1 hour before moving in to now averaging around 22 minutes. That is a 64% decrease in wait times. In addition, we’re staying pretty consistent on our metrics. There aren’t that many ebbs and flows, which is nice.” Silverman continues, “And the LWBS (left without being seen) percentage is zero, down from 1.5% in the old ED.”

Department Chair of Emergency Services Dr. Myrian Alea was actively engaged in the design process. She comments, “The positive change in our culture is due to the bottom-up approach. Everyone takes ownership.” She cites the September 2017 staff satisfaction survey result at 84% positive and notes that “The stress level is way down.” Dr. Alea continues, “One of the best parts is the short time parents have to wait to meet a provider. Patients instantly see the provider allowing nursing to continue with their job.”

The new Chief Administrative Officer, Armando Llechu, has years of experience in Emergency Medicine and Children’s Hospitals. He says of the new design, “Few are as efficient. With an expected number of Emergency Department visits to reach 35,000 this year, our door to provider, ALOS and LWBS are the keys to our efficiency and the new design is scalable to much larger numbers.”

Expanding on the new department, Llechu states, “I believe that the design enables much of the new efficiency. The visibility of the rooms is great in both the front of house and back of house, enabling excellent corridor management. I’m really happy with the consultant’s training model and the results of our design teams.”

The Culture of Continuous Improvement

A primary goal of the bottom-up design process is the empowering of front line staff to produce the one best way to do the work. Staff creates standard work and then is expected to continuously improve on it through suggestions and pilots. Leadership’s role is to facilitate the process. Silverman states, “The ratio of staff that moved from the old department to new hires is 50/50. Each new hire is trained and evaluated on our standard work. This eliminates variability, lowers defects and enables us to focus on improvement.” She continues, “To perpetuate the culture of proactive continuous improvement, we discuss suggestions at daily huddles, pilot those suggestions and implement those that add value. We have also established a task force that meets once per month and evaluates progress.” Dr. Alea adds, “After this experience, I don’t see how we were able to manage work in the old design.”

The New ED Design Produced Revolutionary Changes in Patient and Provider Flow

Before	After
Children and adults comingled in one ED	Dedicated Pediatric ED with 2 tracks: Fast Track and Acute Care
Registration was a clerical function	Clinician located at registration
Patients housed in rooms waiting for provider, treatment and discharge	Patients change location to move from one value added step to the next
Providers, RNs and staff working separately	Care teams with standard work
High levels of stress and noise	Stress and noise levels virtually eliminated
Throughput limited by rooming process	Space designed to flex for both low and high demand

What Patient Families Say

With patient satisfaction at all-time highs, comments like these are typical:

- “Best hospital experience I've ever had. Friendly staff. We were in and out in less than an hour.”
- “Amazing staff! Best hospital I've ever been to!”
- “Golisano was the cleanest, most efficient and caring hospital we've visited. Thank You!”
- “I absolutely love this hospital.”