2014 Gage Awards

Reference #	7491782
Status	Complete
Name of hospital or health system	Maricopa Integrated Health System/Arizona Children's Center
Name of project	Improving Access to Care in the Pediatric ED: Reducing Door to Doctor Time
CEO name	Steve Purves
CEO approval	Check here to confirm that your CEO approves of this project being submitted for a 2014 Gage Award
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Within which of the two categories does your application best align?	Quality

1. Provide a brief description of the project. (This section should resemble an abstract for a poster presentation or an abstract for a peer reviewed journal. Include an objective, data sources, study design, findings, and conclusions.)	Objectives: 1.Describe the benefits of reducing door to doctor time by improving the patient/family perception of care. 2.Describe how lean healthcare methodology focused on the patient, enhanced the change process, increased process standardization, and improved staff acceptance of the change processes. 3.Correlate how a decrease in door to doctor improves access to care and patient satisfaction. Background: The pediatric emergency department (ED) provides emergent and urgent care to patients and their families. Unlike primary adult EDs, the pediatric ED cares for the patient and the child's parent or caregiver who forms the impression of their visit to the ED. This pediatric ED is part of a public, academic medical center in Phoenix, Arizona which is a Level I Trauma Center, ABA accredited Burn Center, and offers a Pediatric and an Emergency Medicine residency program. Volume in the pediatric ED varies seasonally and the patient population has frequent psychosocial needs that the staff and physicians must attend to as part of the care provided. This can extend the average length of stay in the ED. The ED does experience surges and must respond to those fluctuations based on demand and capacity analysis of the volume. With these surges, the flow through the ED must be managed for maximizing room use and resource allocation. To better respond to these issues and to maximize the ED capacity, a process improvement need was identified to improve the door to doctor time. Data Sources: Data was used from the electronic health record through the analysis of monthly reports on a variety of ED throughput metrics. Patient satisfaction data and comments were also used as a qualitative and quantitative measure of how customers perceived care in the ED. The data from both of these sources was used as the main data sources. Design: A transdisciplinary team was formed to represent the stakeholders involved in the process improvement. Lean healthcare methodology was used to guide the process redesign and general change management principles from Kotter were employed to help facilitate the affective, cognitive, and behavioral changes to accompany the process redesign. Findings and Results: The changes to both of these processes, including the transition of triage as a process instead of a place, led to improved door to doctor times within 60 days of the implementation for door to doctor. In phase 2, immediate bedding and the two step patient assessment created a decrease in the arrival to room time. Both these interventions have improved the metrics and improved patient satisfaction.

	Conclusion: The door to doctor median time average for the last 5 months has been 18 minutes and the patient satisfaction percentile ranking is 99.
2. Describe the methods use in this project. Include where, why, and how the project was accomplished.	This process improvement to reduce door to doctor times in the pediatric emergency department was conducted at Maricopa Medical Center/Arizona Children's Center in Phoenix, Arizona. Arizona Children's Center is a Children's Hospital Association designated hospital within a hospital. Arizona Children's Center provides acute inpatient, intensive care, emergency services (including trauma and burn), and ambulatory care within Maricopa Medical Center. Maricopa Medical Center is part of Maricopa Integrated Health System, a public and academic medical center serving the citizens of Maricopa County, Arizona. This process improvement utilized the improvement philosophy of plan, do, study, and act. This process was followed through use of lean healthcare methodology principles to facilitate a rapid cycle process improvement. Change management philosophies of Kotter were employed to guide the change process work. A transdisciplinary team was formed to define the current state, determine how to improve the door to doctor time, and to develop countermeasures to improve the outcomes. The team participated in the problem identification, determined the need for changed, engaged in a "gemba" walk, completed process flows, and determined the steps for change and implementation. This team helped form the guiding coalition for the change process through the sponsorship from the Arizona Children's Center administrative and physician leaders. Frontline leaders in the ED helped to serve as the process compliance monitors and helped guide the process steps. The need for this process improvement evolved from a desire to improve the access to care for patients and to improve meeting the hospital goal of a 30 minute door to doctor time.

3. Describe the results of the project. What data was used to support improvement results?	The process improvement involved the application of lean methodology to frame the analysis of the process, determining what was value-added to the patient/family, how the current process steps supported or created barriers for patients and staff, and how perceptions of care are related to the processes. The process kicked off with the development of a transdisciplinary team of stakeholders who formed the guiding coalition for the change effort and the need to create change. The ED medical director and clinical director served as the change champions. The team performed an analysis of the current state and then created a future state. Data was used from the metrics collected by the electronic health record. The hospital had set a goal of a 30 minute door to doctor time which was not being met during 2012. This prompted the leadership team and staff working through the shared governance process to begin looking at how this could be improved. The change involved a two step process that focused on decreasing overall door to doctor time in phase 1 which started in February 2013. The next phase, once this metric/measure was stabilized, was to enhance the process through immediate bedding and revising the intake process, to include a two part initial assessment to determine immediate patient needs and then the secondary assessment completed in the patient's room. The changes to both of these processes, including the transition of triage as a process instead of a place, led to improved door to doctor times within 60 days of the implementation for door to doctor. In phase 2, immediate bedding and the two step patient assessment created a decrease in the arrival to room time. Both these interventions have improved the metrics and improved patient satisfaction. The continuous monitoring of the data monthly and sharing that with all staff and physicians has helped to promote the continued awareness of the metrics and the improvements that are being sustained.
3A. Attachment, if applicable (Only graphically displayed data such as charts will be accepted. Data should include baseline and improvement data)	MIHS-AzCCDoortoDocPI.pdf (256k)

4. Describe what happened as a result of the project. Was the improvement related to the intervention? Can the project be duplicated by other organizations?	This process change has resulted in several outcomes. The door to doctor time has decreased by 50% with a median door to doctor time of 16 minutes for the month of November 2013. The other change in both metrics and patient perceptions is the use of immediate bedding when beds are open. The patient arrival time to room is 8 minutes; this is down from an average of nearly 21 minutes in the preceding months prior to the process change. Patient satisfaction was very good prior to the change with the ED percentile ranking in the 99th percentile. The improvements have generated positive perceptions and comments from families regarding the speed with which they are greeted, placed in a room, and seen by the doctor. Access to care has improved, along with the patient and family perception of quality of care. The reduction in door to doctor times and improved access to care in the ED can be replicated by other institutions using lean methodology and change management tools.
5. Describe how patients, families, and if appropriate, community was included in the work.	Patients and families were not involved in the actual process improvement process. The process was designed by structuring the changes with flow and the implementation of evidence based throughput practices. These process changes were driven by a patient-centric approach to create the processes around the patient and family needs. Prior to that, the processes were very staff and provider centric. The result of the decrease in access to care has improved patient satisfaction and serves as a differentiator for patients and providers in the community.
5A. Attachment, if applicable (Applicable attachments include documents created for patients, families, or community members or by them as a result of the project)	EditedEDslick.pdf (548k)
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