

## BACKGROUND

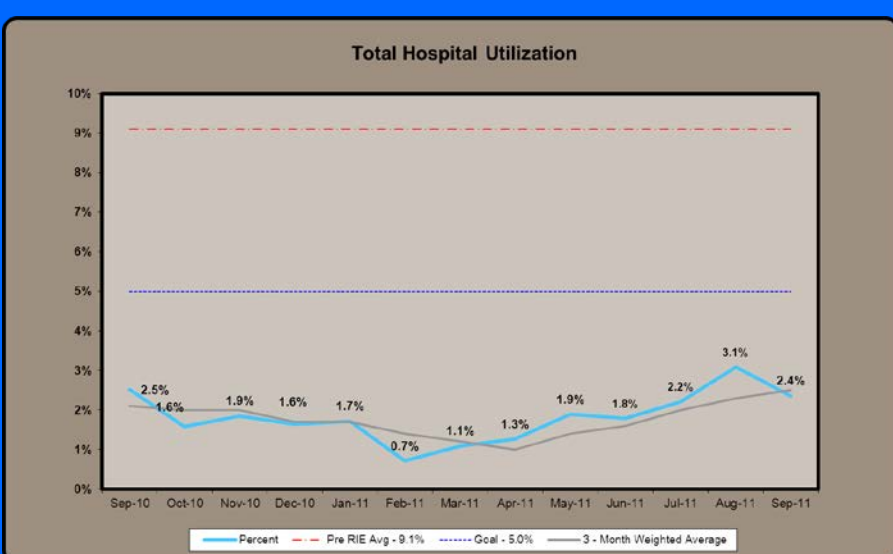
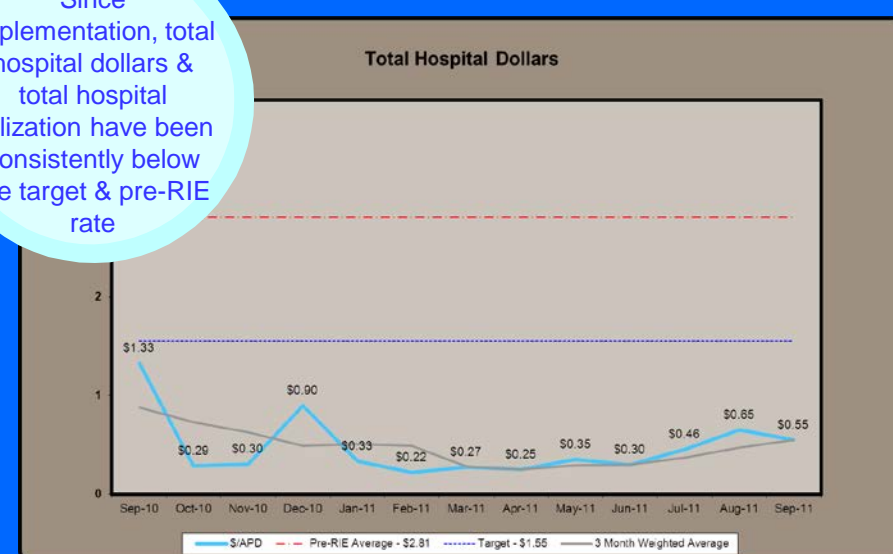
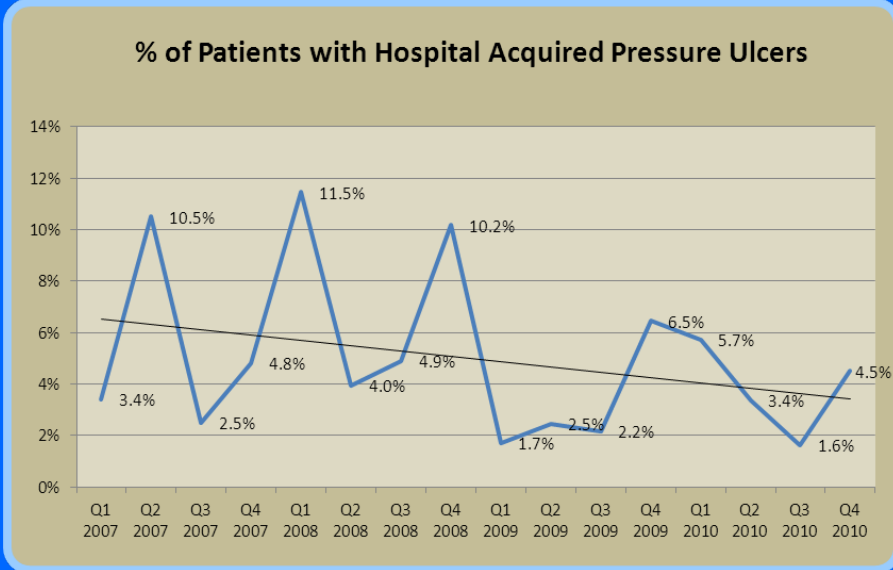
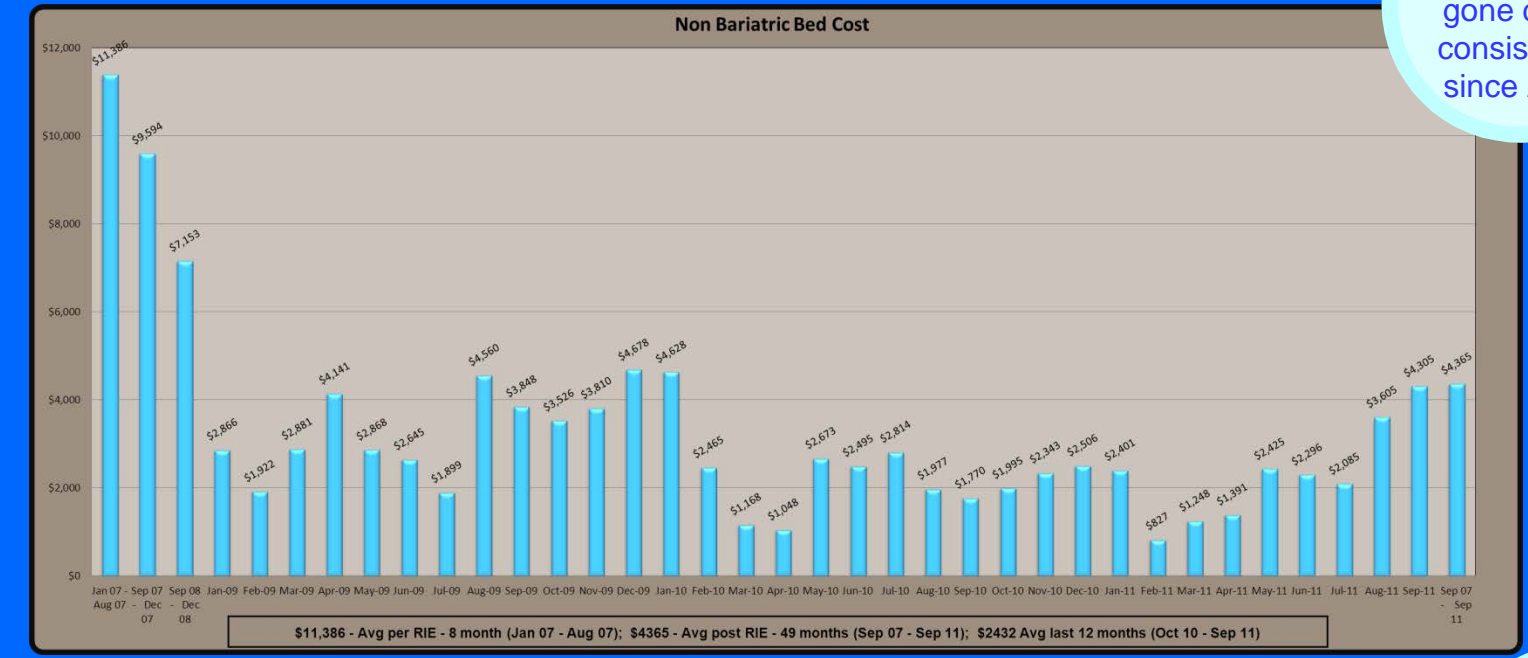
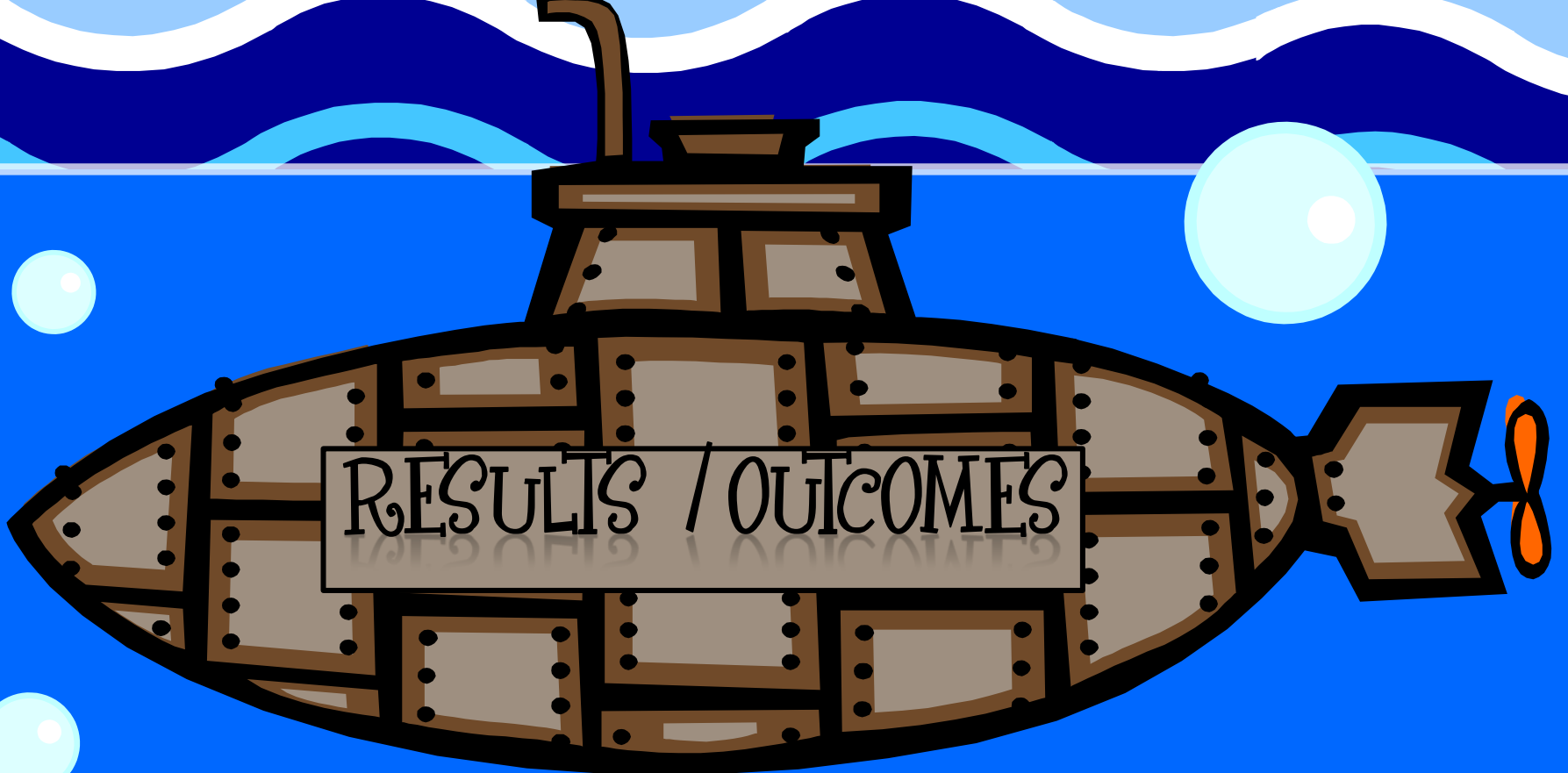
In September 2007, a multidisciplinary group was gathered to evaluate the utilization and cost of specialty beds and surfaces at Denver Health Medical Center (DHMC). Additionally, after a survey of the current condition of beds on the inpatient acute and critical care units, it was found that a large portion of the beds and surfaces were in fair to poor condition. Coupled with the high cost of specialty surface rental, and the need for continued pressure ulcer prevention, the group was challenged with devising a strategy to implement a cost effective prevention program focusing on decreasing the use of specialty surfaces.

## SETTING

- Denver Health Medical Center
- 525 - bed urban public safety net hospital
- Inpatient Adult Units

## PURPOSE

- The purpose of this project was to:
- Assess existing specialty surface usage (current workflow and processes)
  - Review pressure ulcer prevention strategies related to use of specialty beds and mattresses
  - Evaluate staff knowledge related to these matters
  - Develop a standard decision protocol for ordering and discontinuing specialty beds
  - Standardize skin care utilizing best practices
  - Reduce the rate of hospital acquired pressure ulcers while implementing a cost effective prevention strategy focusing on the use of specialty beds



## METHODS

- DHMC utilized Toyota LEAN model and tools including
  - Integrating identification of initial state
  - Target condition
  - Gap analysis
  - Solution approach
  - Rapid experiments
  - Plans for completion
- The Rapid Improvement Event (RIE) revealed gaps in existing workflow of specialty bed usage including:
  - Lack of knowledge of bed assets
  - Absence of written protocol based on patient risk
  - Limited resources with labor intensive inventory
  - Education deficits
  - No existing standard work for ordering beds leading to an inconsistent design operation with ambiguous workflow connections
- The team implemented a plan that included:
  - Bed replacement program
  - Gatekeeper functions for ordering beds
  - Standardized decision making for specialty surfaces
  - Systematic computerized tracking
  - Increased standardization by reducing the bed formulary
  - Staff education and communication plan
- Data collection and analysis has been ongoing. The ratio of adult specialty bed days and related costs are monitored monthly, while hospital acquired pressure ulcer rates are followed quarterly.

## IMPLICATIONS FOR PRACTICE

- Pressure reducing surfaces can be integrated into a comprehensive pressure ulcer prevention plan, however inappropriate use of specialty surfaces can be costly with little additional benefit to patients
- This project demonstrates the value of utilizing the Toyota LEAN model and concepts in developing a strategy to better care for patients at risk for pressure ulcers by providing the "right" bed for the "right" patient
- Appropriate utilization of these resources will result in cost effective care and a reduction in hospital acquired pressure ulcers