

# The Implementation of the Code Stroke Pit Stop: A Quality Improvement Project for Greater Efficiency

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## Background

- Stroke is the leading cause of long-term disability in the US
- Two standard of care interventions: iv tPA and Mechanical Thrombectomy (MT)
- Interventions most effective with efficient system-based processes
- Global, national, and local disparity in access to stroke interventions
- Local emergency medical services (EMS) routing system for strokes to MT-capable hospitals
- There was No MT- capable hospitals in a local community of 3 million people
- Responding to the community need, hospital executive leadership on-boarded MT physician group

## Problem

- ED staff uniformed and unprepared for the MT program
- Inefficient baseline code stroke response system

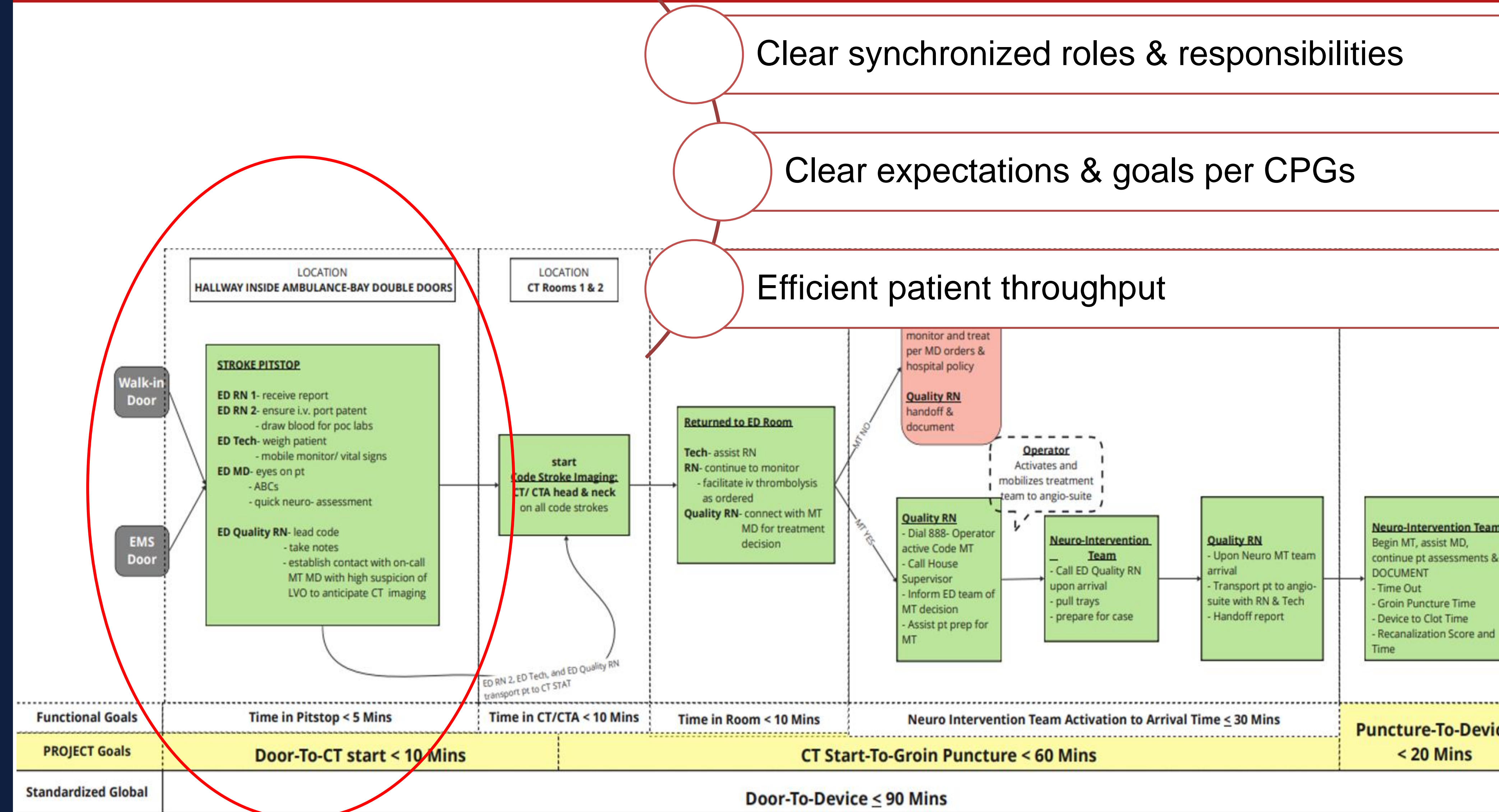
## Purpose

To bridge the gap in the emergency stroke practice by implementing an evidence-based optimized code stroke response system for greater efficiency as evident by improved stroke intervention performance and quality outcomes

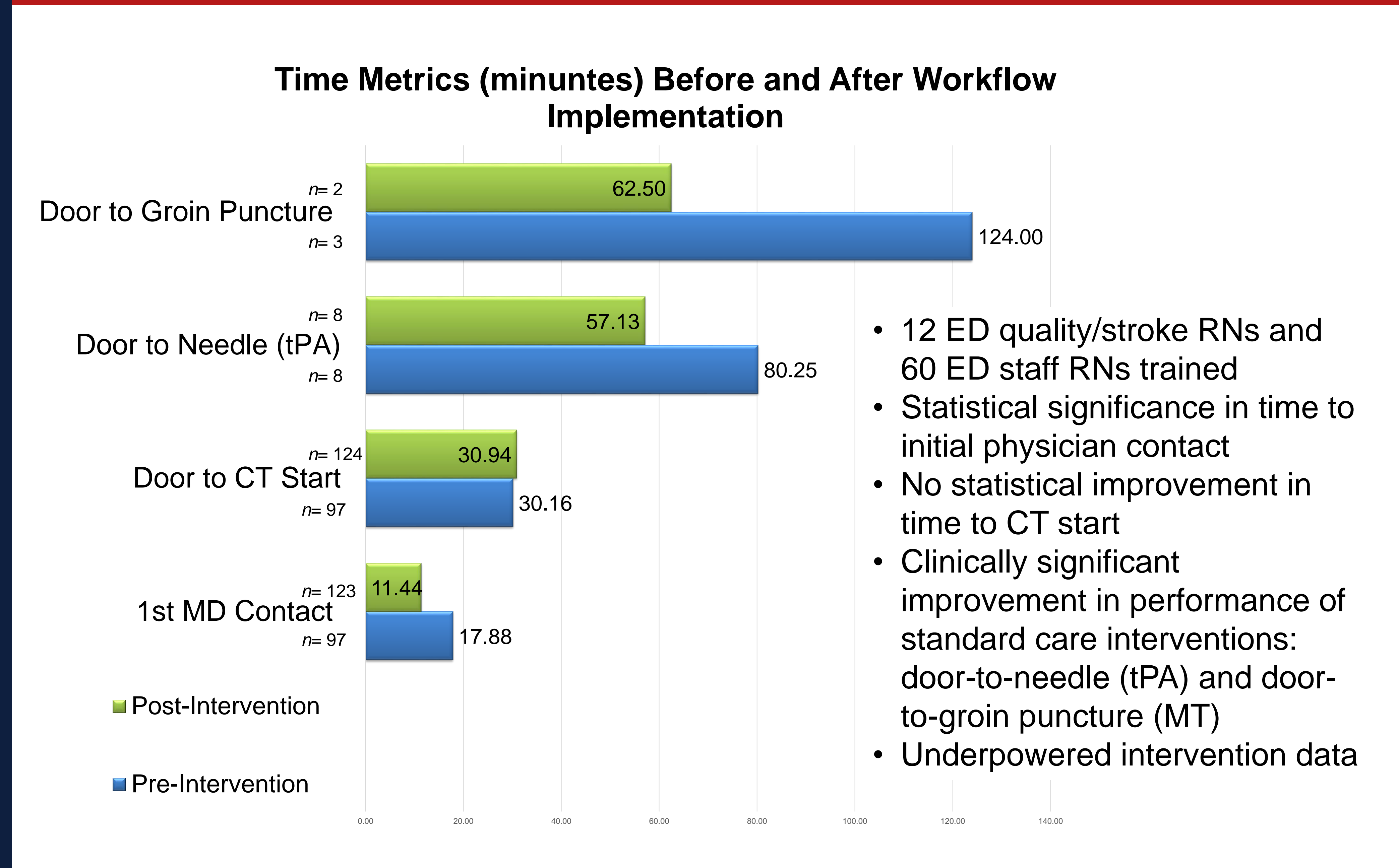
## Methods

**Design:** Quality improvement project  
**Setting:** Emergency Department (ED), Southern California community hospital  
**Participants:** ED nursing staff  
**Framework:** The Stevens STAR Model of Knowledge Transformation  
**Data:** Standardized benchmark stroke performance data three months pre- and three months post-implementation

## The Code Stroke Pit Stop Protocol



## Results



## Strengths/ Limitations

- Strengths:**
- Executive leadership support
  - Abundance of evidence
  - ED staff's commitment to community
- Limitations:**
- Small sample size
  - Inconsistent electronic health record (EHR) documentation
  - Limited time to ensure full adoption

## Recommendations/Implications

- Continue quality improvement
- Maximize EHR data management
- Innovative process changes at the community hospital setting
- Attention to culture shift needs
- Ensure organizational support
- Empower stakeholders for adoption
- Motivate staff for sustainability
- Identify reliable consistent process champion
- Quality assurance

## Conclusion

Innovative code stroke process quality improvement in the community hospital setting can be implemented with organizational support and improve stroke intervention performance and quality clinical outcomes. Although this DNP project lacked enough intervention data for statistical significance, clinical performance improvement was achieved to qualify the hospital for advanced stroke certification and designation by the county EMS for routing.

## References

