

Using Value Stream Mapping to Explore Newborn Clinic Efficiency and Provider Satisfaction

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Background

- FQHC quickly created a newborn clinic (NBC) in 2020 to protect neonates during COVID pandemic
- Implementation challenging due to pandemic
 - Provider satisfaction low**
 - Long NBC wait times**
 - Spending 1.22 hours on average in clinic
 - Possible inefficiency/bottlenecks in clinic
- Neonates from low SES at higher risk of complications
 - Low birth weight
 - Preterm birth
 - Mortality

Literature Review

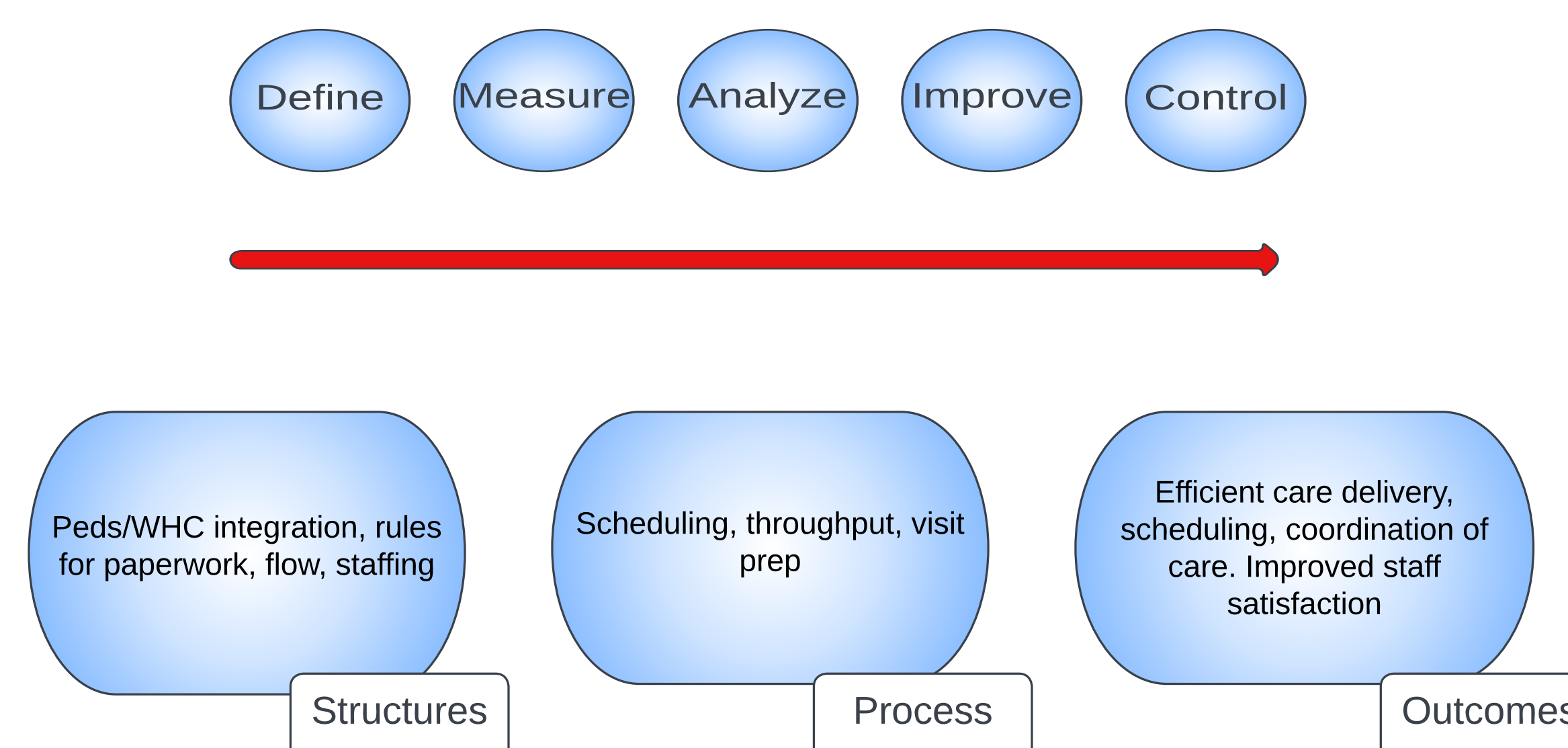
- Newborns are a high-risk population
 - Weight loss/ Failure to thrive
 - Hyperbilirubinemia
- Importance of efficient throughput of patients
- Limited literature surrounding newborn clinic efficiency
- Clinic scheduling highly individualize
- Care coordination well supported across multiple clinical settings

Purpose Statement

- The purpose of this project was to examine operational flow in a newly formed, inner-city NBC and enhance the role of coordinated care delivery.
- Outcomes:
 - Evaluate scheduling
 - Identify inactive time in clinic flow
 - Examine use of a care coordinator position

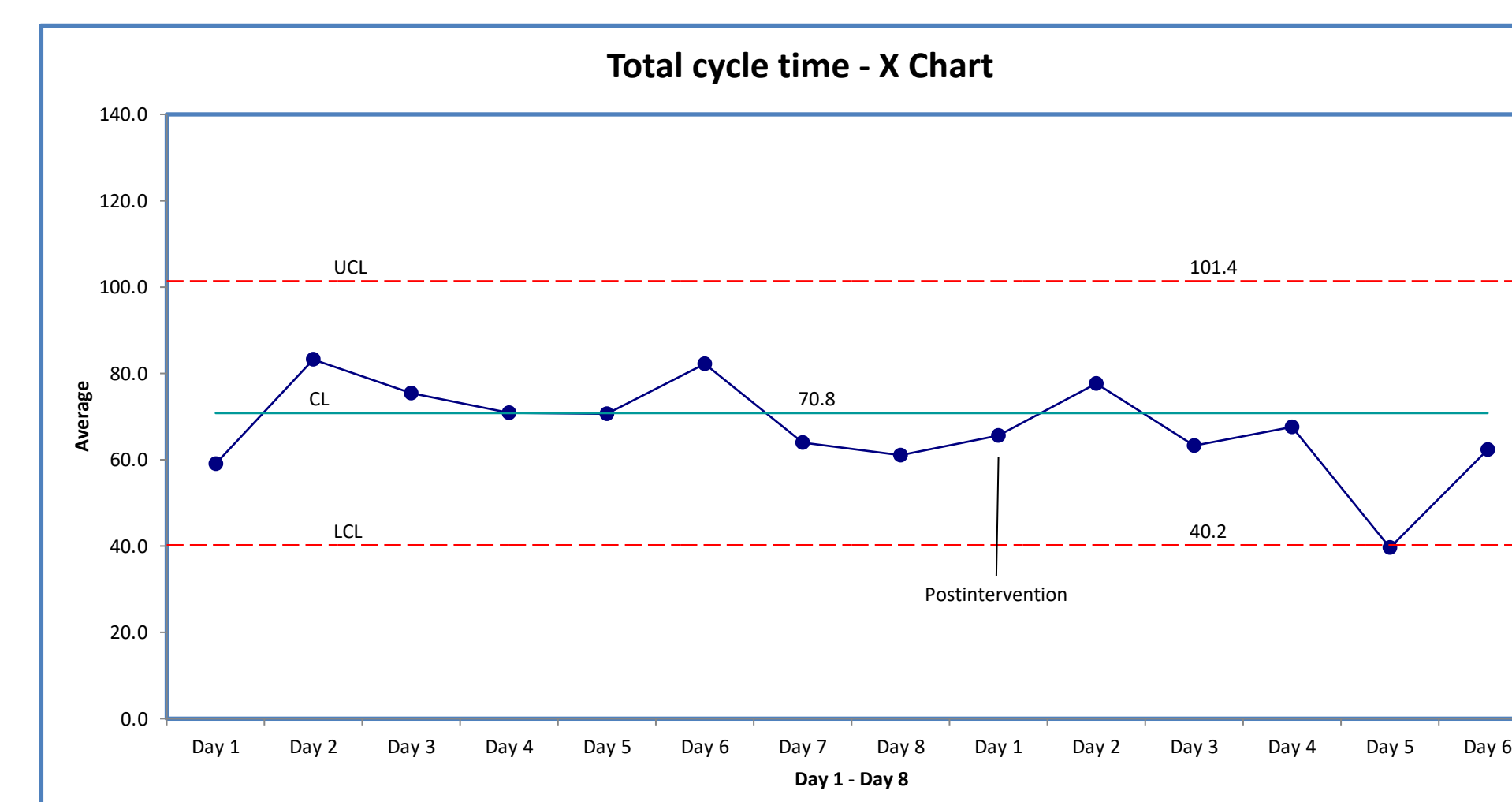
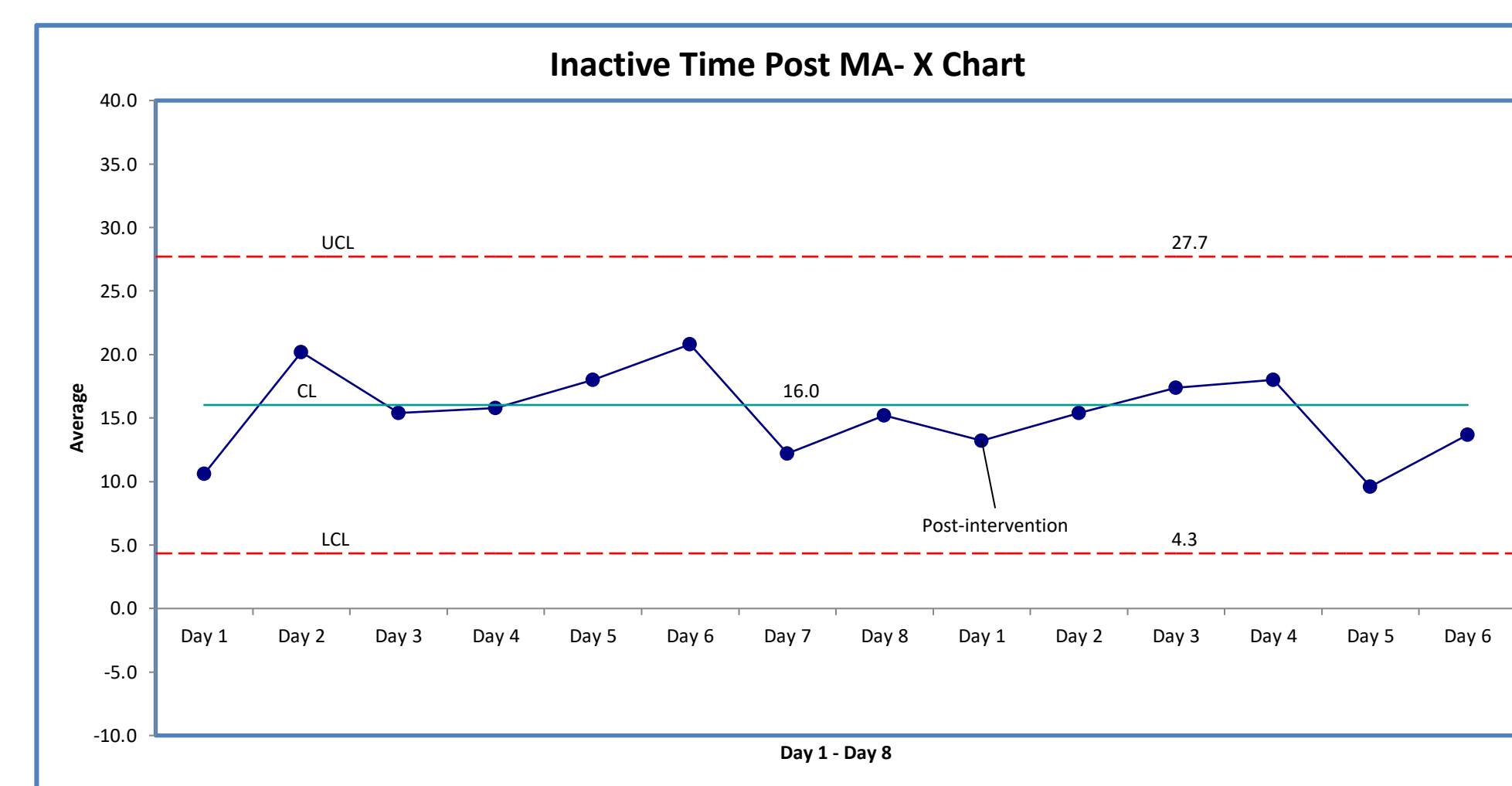
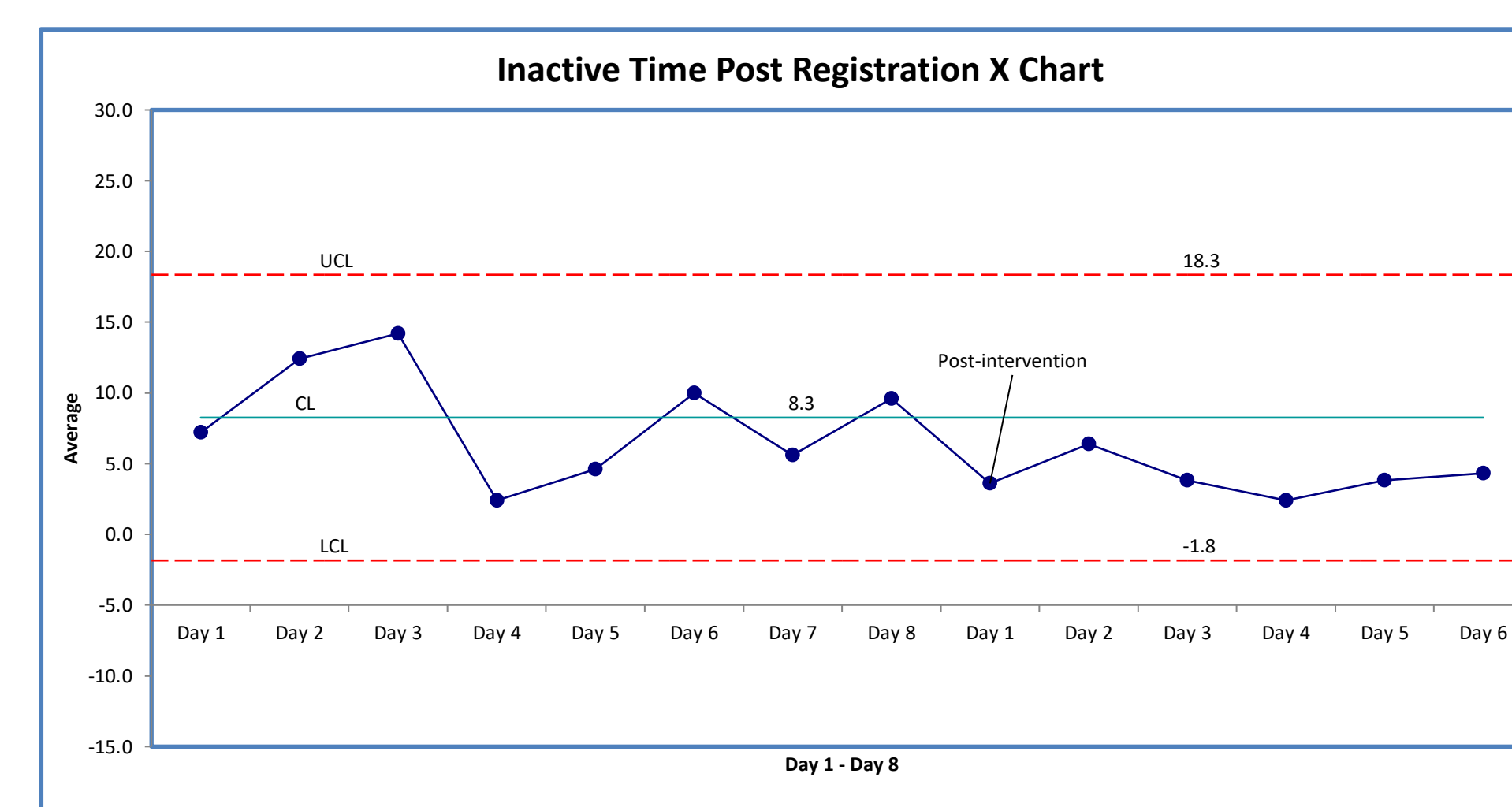
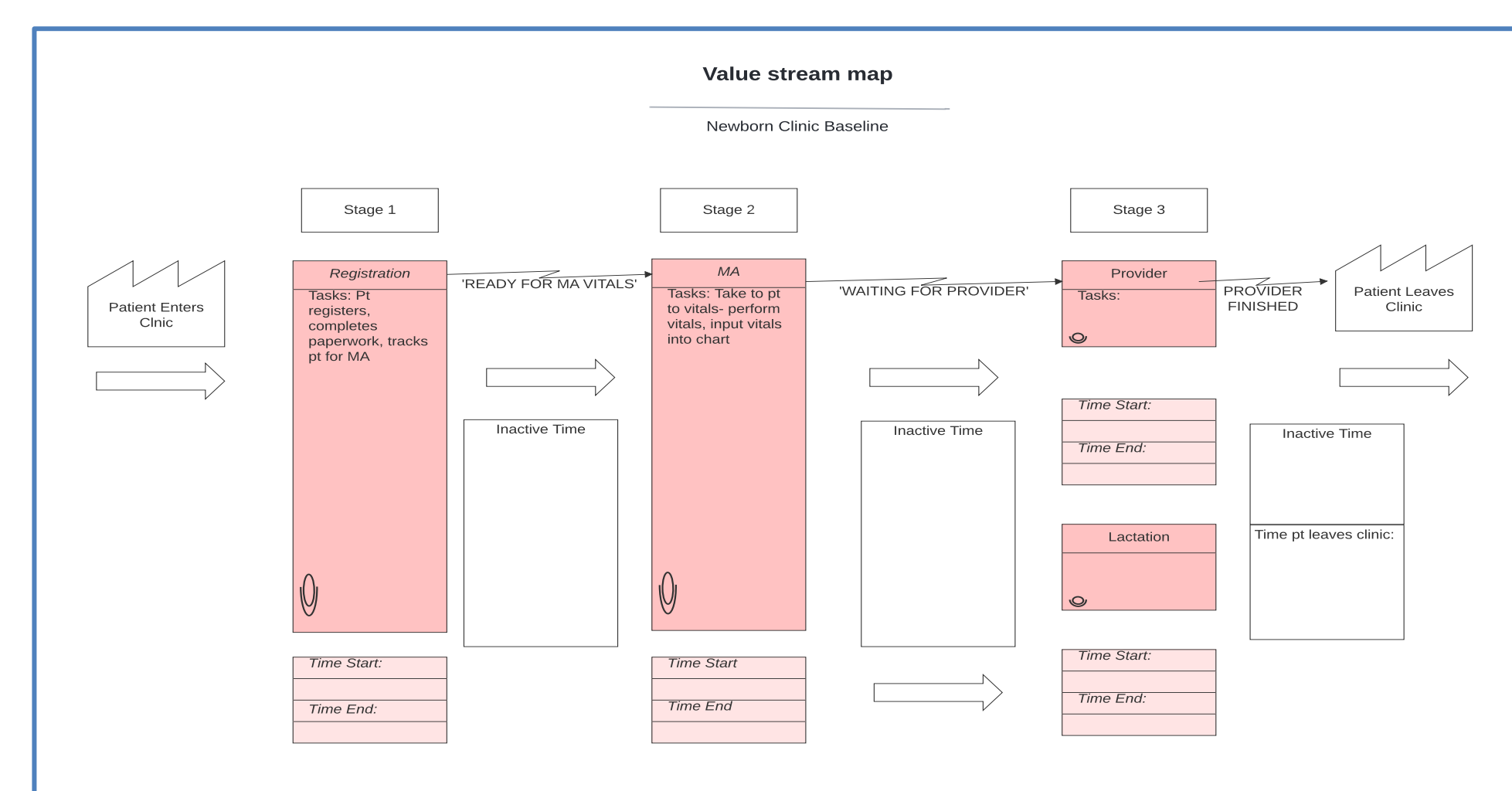
Frameworks

Lean Six Sigma DMAIC



Results

- VSM identified two areas of inactive patient time**
 - Implementation of Postpartum Depression and Social Determinants of Health Screening
 - No impact on the overall cycle time



Provider Survey Results:

- Provider satisfaction improved slightly and late patients, acquisition of birth records, and paperwork are areas needing work

Methods

- Design:** Quality Improvement Project
- Setting:** FQHC in Downtown Los Angeles, CA.
- Sample:** Providers, newborn patients up to 2 months of age largely Latino population
- Data collection:** Collected by AmeriCorps volunteers n=40 pre-intervention, n=30 post-intervention, convenience sample.
- Outcomes & Measures:** Improved provider satisfaction via survey; Improved efficiency via timestamp data

Significance

- Healthcare requires efficiency in care delivery. Exploring avenues for efficient care delivery should be a top priority.
- Study highlights that the use of value stream maps can identify areas of inactive time that can be more effectively used to deliver care in line with best practices.

Discussion & Future Implications

- VSM should be applied when attempting to understand clinic flow dynamics and making informed decisions.
- Best practices can be implemented without disrupting cycle time.
- Provider satisfaction may be more affected by coordinated care than improvement inpatient inactive time.
- Care coordination likely plays a significant role in efficient care delivery.
- Care coordinator position approved at the clinical site
 - Pilot to begin August 2023.
 - Pilot funded with grant money