Value Stream Mapping to Explore Newborn Clinic Efficiency and Provider Satisfaction

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Introduction: Newborns are a unique and vulnerable patient population, especially when born into families of low socioeconomic status. They are commonly blended with the general pediatric population in outpatient community care centers. Because of safety concerns during the global COVID-19 pandemic, a federally qualified health center moved its newborn care (NBC) to a smaller, more controlled women’s health center.

Statement of the problem: After the move to women's health center, multiple reports of staff dissatisfaction about the newborn clinic (NBC) operations emerged that highlighted the need to explore operational flow. 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.

Methods: The Lean Six Sigma and the Donabedian models guided the project. Value Stream Map (VSM) was used to examine flow to identify areas for improvement, and provider satisfaction was measured by a Qualtrics™ survey.

Results: Baseline data revealed two areas of ‘idle time’ within the clinic flow. This allowed for Post-Partum Depression and Social Determinants of Health screening to be implemented without increasing NBC cycle time. After implementation, care delivery satisfaction scores slightly improved with no change noted in the satisfaction of clinic operations.

Implications and significance: These results suggest that Lean Six Sigma and VSM are effective tools when identifying areas to improve care delivery.

Recommendations: VSM should be applied when attempting to understand clinic flow dynamics.

Keywords: newborn; newborn clinic; FQHC; quality improvement; Lean six sigma, value stream mapping; Donabedian model; provider satisfaction; postpartum depression; social determinants of health; care delivery