HolyName | Great medicine. Soul purpose.

Successfully Reducing NTSV C-Section and Episiotomy Rates with Evidenced-Based Practices at a Community-Based Hospital

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BACKGROUND

Reducing NTSV (nulliparous, term, singleton, vertex) C-Section and episiotomy rates is important because it can significantly improve maternal and infant health outcomes by:

- promoting vaginal births in low-risk pregnancies
- minimizing unnecessary surgical interventions
- lowering the risk of complications
- decreasing maternal morbidity and mortality[2]

PURPOSE

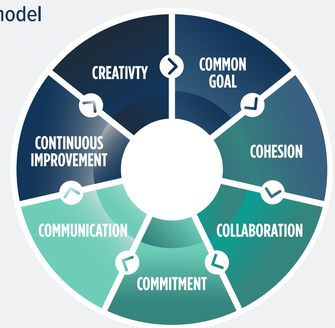
In 2022, Holy Name's NTSV rate was 33.3% and the episiotomy rate was 16.76%, both exceeding national guidelines, by 9.7 and 14.4 percentage points respectively. This highlighted the need for targeted improvements to align with best practices and ensure optimal patient care.

METHODOLOGY

Utilizing the tenants of highly effective teams, the team applied the FOCUS-PDSA model to identify areas of improvements.

A multidisciplinary team conducted a gap analysis and implemented targeted improvements focused on the following areas:

- education
- clinical culture change
- data transparency
- provider performance
- regular monitoring



CONTACT

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INTERVENTIONS

Phase 1 (Q1 2023)

- Departmental metrics created with targets
- Policy/procedure revised
- NTSV committee formed
- Weekly chart audits to identify consistency with clinical practice guidelines
- Staff were provided education that supported evidence-based labor management
- Educational activities and materials created to promote and support vaginal births for patients and staff [3]

Educational brochure

Phase 2 (Q2 2023)

- Multidisciplinary OB committee established
- Quarterly/Monthly data aggregation to identify trends
- Weekly recording, monitoring, and auditing of obstetric data and key performance indicators
- Practice/group, and individual provider monthly performance published internally to promote data transparency

Phase 3 (Q3 2023)

- Provider training conducted via Relias, online learning management system (LMS)
- Laborist and Perinatal Safety Nurse integrated into the patient-centered care model [1]
- Team attending daily patient rounds expanded to include the laborist and Chief of OB
- Facilitated a clinical culture change

RESULTS

FIGURE 1 2022-2024 NTSV C-Section & Episiotomy Rate

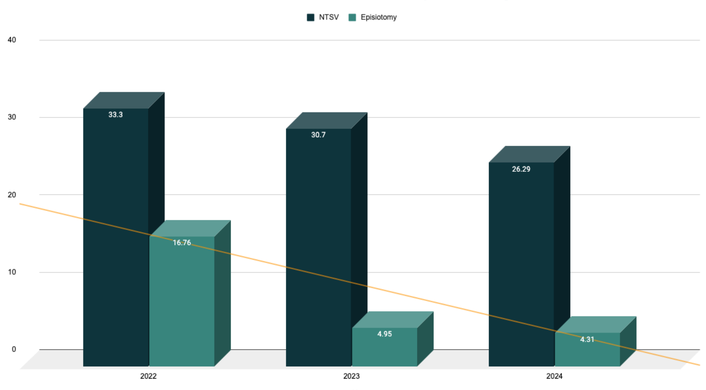
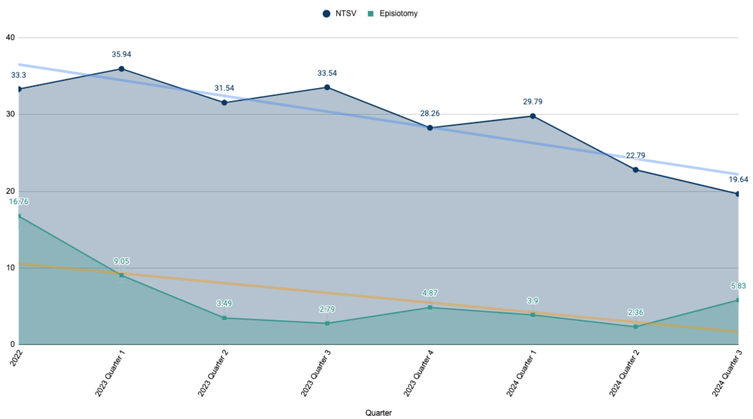


FIGURE 2 2022-2024 NTSV & Episiotomy Quarterly Rate



ANALYSIS

Overall, the interventions implemented led to a measurable decrease in Holy Name's NTSV C-Section and episiotomy rates. Compared to our 2022 baseline year (Figure 1.), our NTSV C-Section rate decreased 21% and episiotomy decreased 74% in 2024 (as of October 31st).

In Quarter 2 of 2024, we met the Leapfrog standard with an NTSV rate of 22.79% (Figure 2.), below the target of 23.6%, and an episiotomy rate of 2.36%, well below the 5% target.

CONCLUSION

Results from this study suggest that a multidisciplinary team approach using evidence-based practices can effectively improve two nationally recognized Leapfrog measures: NTSV C-Section and episiotomy rates.

LESSON LEARNED

A key takeaway is the impact of ongoing education, particularly for newly onboarded staff and patients.

LITERATURE CITED

[1] Metz TD, Allshouse AA, Gilbert SAB, Doyle R, Tong A, Carey JC. Variation in primary cesarean delivery rates by individual physician within a single-hospital laborist model. (2016). *Am J Obstet Gynecol.* Apr;214(4):531.e1-531.e6. doi: 10.1016/j.ajog.2016.01.002. *Epub* 2016 Feb 26. PMID: 26922481; PMCID: PMC4808612.

[2] Smith H, Peterson N, Lagrew D and Main E. (2022). Toolkit to Support Vaginal Birth and Reduce Primary Cesareans: A Quality Improvement Toolkit. California Maternal Quality Care Collaborative; 2022.

[3] Vadnais MA, Hacker MR, Shah NT, Jordan J, Modest AM, Siegel M, Golen TH. (2017). Quality Improvement Initiatives Lead to Reduction in Nulliparous Term Singleton Vertex Cesarean Delivery Rate. *Jt Comm J Qual Patient Saf.* Feb;43(2):53-61. doi: 10.1016/j.jcjq.2016.11.008. *Epub* 2016 Nov 15. PMID: 28334563; PMCID: PMC5928501.