

# Elective Labor Induction Education

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## BACKGROUND

- From 1992 to 2002, the mean gestational age for singleton births in the United States decreased from 40 weeks to 39 weeks, in part related to the rise in medical procedures such as labor induction, with approximately one half to two thirds of labor inductions performed for nonmedical indications (Tong et al., 2012).
- Women who deliver before 39 weeks gestational age tend to have longer and more complicated deliveries, and their babies face greater risk of medical complications (Zhang et al., 2016).
- The American College of Obstetricians and Gynecologists and the American Academy of Pediatrics both recommend against elective induction of labor, especially before 39 weeks gestation (Van Der Ham et al., 2012).

## PICO QUESTION

In pregnant women considering an elective labor induction, does receiving prenatal induction education regarding the risks and benefits of elective induction compared with not receiving prenatal induction education decrease the rate/incidence of elective labor inductions among those women?

## SEARCH STRATEGY

By using databases such as CINAHL, AHRQ, Cochrane, MEDLINE (EBSCO) and PubMed, research returned articles that contained high quality, independent evidence that informs healthcare decision making. Results from level II and level IV cohort studies, as well as a systematic revealed evidence for the STOC, both contradictory and in agreement with the PICO question.

## SUMMARY OF EVIDENCE

- All women eligible for induction of labor should be provided education through childbirth classes regarding the risks and benefits of induction (Simpson et al., 2010).
- Physicians should not offer the option of elective induction to patients who are eligible for a spontaneous vaginal delivery and do not have a medical indication per ACOG guidelines for a labor induction (Simpson et al., 2010).

## PURPOSE

The purpose of this project was to further evaluate the implementation of prenatal education regarding induction of labor and the effect it has on the mother's decision whether to induce her labor or allow spontaneous labor to occur.

## SMALL TEST OF CHANGE

- The target population included all pregnant women eligible for an elective induction of labor in an obstetrical clinic.
- Group 1 included all deliveries within the obstetrical clinic from October 10, 2016-December 15, 2016 (n= 53).
- Group 2 included all eligible patients within the obstetrical clinic whom consented to participate and delivered from January 10, 2017- March 15, 2017 (n= 27).
- Group 2 participants received a brochure outlining the risks of early elective inductions.
- At the participants first post-partum clinic appointment they completed a survey containing questions regarding the decision to either electively induce labor, or allow spontaneous labor.
- Descriptive statistics were used to describe the patient population, education received, and patient decision. Pre-post implementation data was compared among both groups.
- All data was entered into an Excel spreadsheet and then imported into the Statistical Package for the Social Sciences (SPSS) and descriptive and inferential statistical analyses were conducted.
- The rate of elective induction before project implementation (group 1) was then compared to the incidence of elective induction of labor after education implementation (group 2).

American Academy  
of Pediatrics

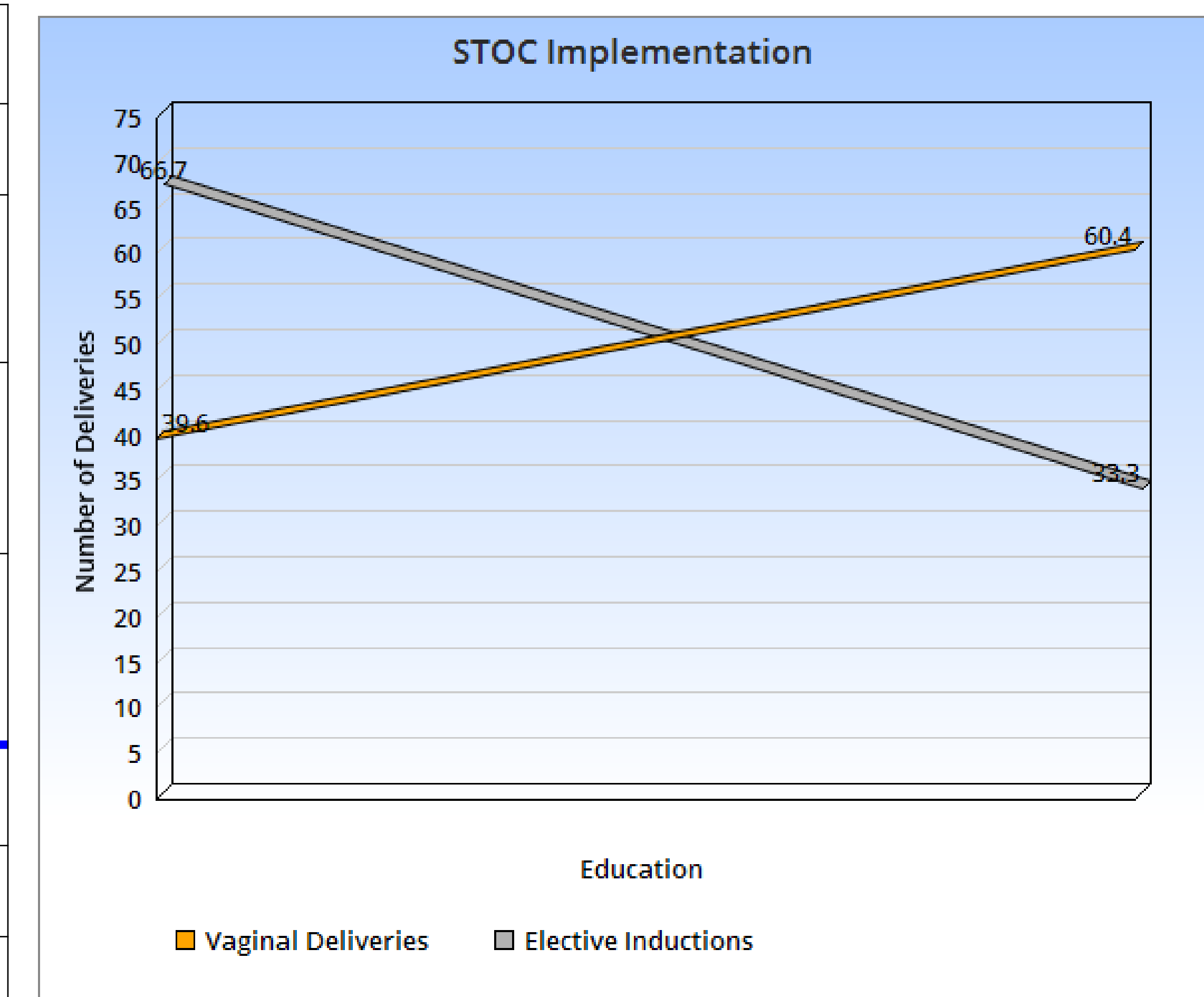


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## SMALL TEST OF CHANGE RESULTS

Group 1	Total Deliveries	n= 53
	Education	0
	Spontaneous Labor	39.6%
	Elective Induction	66.7%
	Education Effective	N/A
Group 2	Total Deliveries	n= 27
	Education	27
	Spontaneous Labor	60.4%
	Elective Induction	33.3%
	Education Effective	60.4%



## Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between Edu Effective and Delivery Type equals 0.	Related-Samples Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

## CONCLUSIONS

- Implementing prenatal education regarding the potential adverse outcomes associated with elective induction of labor decreased patient requests for elective inductions of labor.
- The rate of spontaneous vaginal deliveries increased.
- Decreasing the rate of non-medically indicated labor inductions through education implementation is achievable at this obstetrical setting and further implementation of the project is warranted.
- Recommendations for changes to this project include a longer time frame for implementation of education, as well as an assessment of cesarean delivery rates after project implementation.

## Key References

- Simpson, K., Newman, G., & Chirino, O. (2010). Patient education to reduce elective labor inductions. *MCN: The American Journal of Maternal Child Nursing*, 35(4), 188-196 9p. doi:10.1097/NMC.0b013e3181d9c6d6
- Tong, C., Mackeen, A., & Berghella, V. (2012). The effect of standardized counseling on patient knowledge about Induction of labor. *Journal of Maternal-Fetal & Neonatal Medicine*, 25(12), 2700-2703 4p. doi:10.3109/14767058.2012.703726
- Van Der Ham, D. P., Vijgen, S. C., Nijhuis, J. G., Van Beek, J. J., Opmeer, B. C., Mulder, A. M., & Kars, M. E. (2012). Induction of labor versus expectant management in women with preterm prelabor rupture of membranes between 34 and 37 weeks: A randomized controlled trial. *Plos Medicine*, 9(4), 1-16. doi:10.1371/journal.pmed.1001
- Zhang, L., Zhang, H., Zhang, J., Zhang, J. W., Ye, J. F., & Branch, D. W. (2016). Preventive induction of labor for non-urgent indications at term and maternal and neonatal outcomes. *Reproductive Health*, 13, 46. <http://doi.org/10.1186/s12978-016-0>