

Baptist Medical Center, 2006 — 2011

Non-Medically Indicated (NMI) Deliveries Prior to 39 Weeks

Non-medically indicated (NMI) deliveries are labor induced or cesarean deliveries performed without a maternal or fetal medical condition requiring pregnancy intervention under routine conditions. NMI deliveries prior to 39 weeks increase the risk of admissions to neonatal intensive care units, prolonged hospitalizations and increased costs, respiratory morbidity and support, and other neonatal and infant morbidities.¹⁻⁶

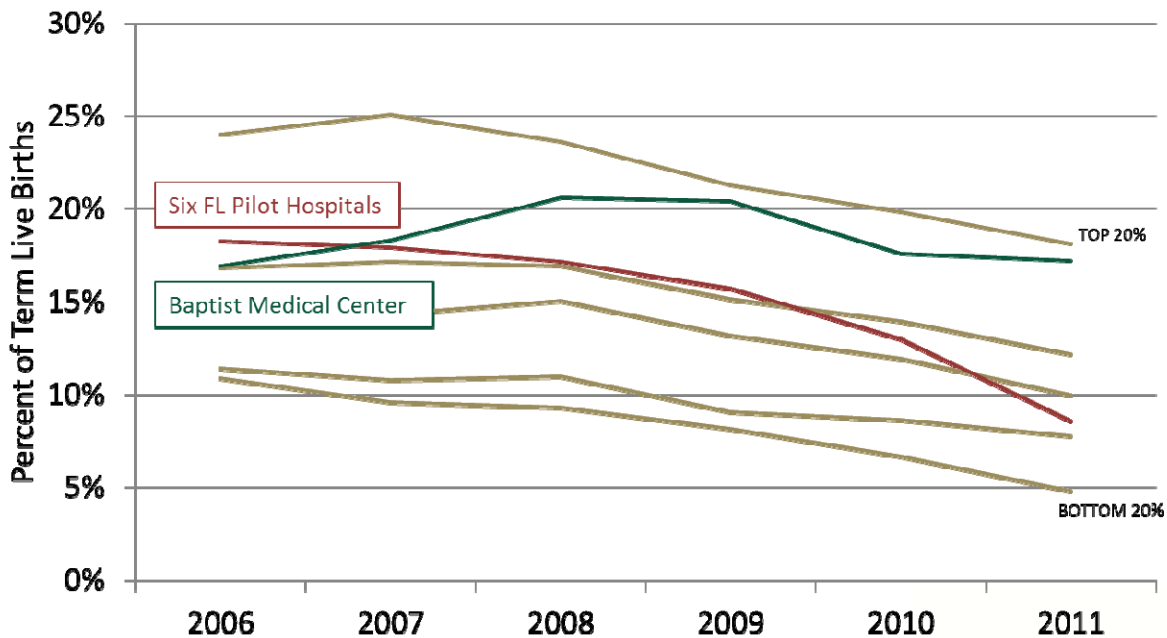
Measuring NMI Deliveries Prior to 39 Weeks

Birth certificate data are used to calculate a surrogate measure in order to assess and monitor NMI deliveries prior to 39 weeks completed weeks of gestation. Gestational age is defined using the clinical estimate of gestational age from the birth certificate.

NMI deliveries prior to 39 weeks are classified by birth certificate reporting using The Joint Commission's (TJC) list of Conditions Possibly Justifying Elective Delivery prior to 39 Weeks Gestation.⁸ The measure is restricted to live births to women presumed to be at risk for a NMI term delivery prior to 39 weeks. Therefore, live births occurring prior to 37 weeks gestation and live births with mothers or infants having medical conditions present prior to pregnancy or prior to labor and delivery are not included as these births were also not at risk for a NMI delivery.



Percent of NMI Singleton Liveborn Babies Prior to 39 Weeks Gestation for [Baptist Medical Center](#) Compared with the [Six Big 5 Pilot Hospitals](#) and the [Average Florida Hospitals](#) by Quintile



Data Source: Florida Live Birth Certificate

Monetary Issues

NMI repeat cesarean sections between 37 and 38 completed weeks have greater costs compared with those at 39 or more completed weeks:⁷

- Respiratory distress syndrome: 37 weeks \$356,208 (per 100 neonates), 38 weeks \$253,089 (per 100 neonates), 39 weeks \$195,800 (per 100 neonates)
- Transient tachypnea of newborn: 37 weeks \$170,524 (per 100 neonates), 38 weeks \$165,596 (per 100 neonates), 39 weeks \$159,025 (per 100 neonates)
- Admission to NICU: 37 weeks \$437,988 (per 100 neonates), 38 weeks \$330,128 (per 100 neonates), 39 weeks \$279,640 (per 100 neonates)
- Newborn sepsis: 37 weeks \$231,418 (per 100 neonates), 38 weeks \$166,035 (per 100 neonates), 39 weeks \$166,035 (per 100 neonates)
- Treated hypoglycemia: 37 weeks \$198,910 (per 100 neonates), 38 weeks \$164,742 (per 100 neonates), 39 weeks \$160,186 (per 100 neonates)
- Ventilation required in first 24h: 37 weeks \$390,220 (per 100 neonates), 38 weeks \$260,757 (per 100 neonates), 39 weeks \$196,026 (per 100 neonates)
- Hospital stay greater than 5 days: 37 weeks \$344,357 (per 100 neonates), 38 weeks \$269,588 (per 100 neonates), 39 weeks \$223,407 (per 100 neonates)

Limitations with Using Birth Certificates to Measure NMI Deliveries

While birth certificates provide timely data for all births in the state of Florida, there are limitations associated with using this data to measure NMI deliveries. Some medical conditions may be misclassified or underreported, and some indications or reasons for early delivery may not be captured. The quality of data reporting may vary by hospital. The reported percentage either reflects on clinical practice or the quality of hospital birth certificate reporting, or both.



References:

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3. Wilkink FA, Hukkelhoven CW, Lunshof S, et al. Neonatal outcome following elective cesarean section beyond 37 weeks of gestation: a 7-year retrospective analysis of a national registry. *American Journal of Obstetrics and Gynecology* 2010;202:250e1-8.
4. Tita ATN, Landon MB, Spong CY, et al. Timing of elective repeat cesarean delivery at term and neonatal outcomes. *New England Journal of Medicine* 2009;360:111-20.
5. Clark SL, Miller DD, Belfort MA, et al. Neonatal and maternal outcomes associated with elective term delivery. *American Journal of Obstetrics and Gynecology* 2009;200:156.e1-4.
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7. Robinson, C, Villers, M, Johnson, D, Simpson, K. Timing of elective repeat cesarean delivery at term and neonatal outcomes: a cost analysis. *American Journal of Obstetrics and Gynecology* 2010; 623e1-632e6.
8. TJC. Specifications Manual for Joint Commission National Quality Core Measures (2011a); Perinatal Care Core Measure Set. 2011 [cited July 27, 2011]; Available from: <http://manual.jointcommission.org/releases/TJC2011A/>