

EARLY ELECTIVE DELIVERIES IN MISSISSIPPI

Impact on Health and Medical Care Costs

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A large body of evidence indicates early elective birth is a major risk factor for increased neonatal illness and death, as well as a driver of medical costs. This issue brief describes the impact of early elective deliveries and examines policies designed to improve birth outcomes through postponing elective deliveries.

There are well documented benefits for newborn health and reductions in costly medical care services associated with postponing elective deliveries for non-medical reasons until at least 39 weeks of pregnancy. Figure 1 illustrates the significantly ($p < .05$) higher death rates found for all babies born just 1 to 2 weeks earlier than 39 weeks of pregnancy, elective or otherwise. Figure 2 shows significantly ($p < .05$) higher intensive care unit admission rates for babies born electively during the 37th and 38th week of gestation. Research shows elective deliveries are often scheduled early for non-medical reasons. Health experts advise delaying these non-medically necessary deliveries until at least 39 weeks.

There are significantly higher death and intensive care unit admission rates in the U.S. for babies born before 39 weeks gestation.

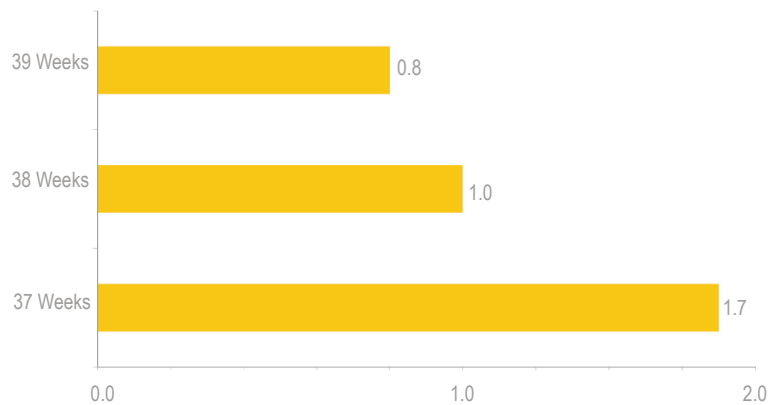
EARLY ELECTIVE DELIVERIES

Induced labor or C-section delivery by a health care provider before the 39th week of pregnancy for non-medical reasons.

NEONATAL

Infant age up to 28 days after birth.

FIGURE 1. U.S. NEONATAL DEATH RATES PER 1,000 LIVE BIRTHS BY WEEK OF DELIVERY, 2001



Source: Reddy et al. (2009). *Pediatrics*, 124:234-240.

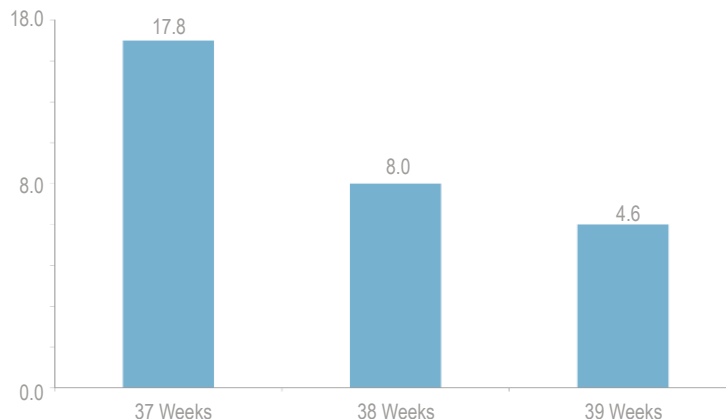
HEALTH RISKS ASSOCIATED WITH EARLY ELECTIVE BIRTHS

- Breathing problems
- Feeding problems
- Infections
- Low body temperature

MEDICAL SERVICES NEEDED MORE OFTEN FOR EARLY ELECTIVE BIRTHS

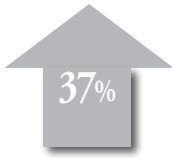
- Ventilation
- Intravenous therapy
- Intensive care services
- Incubation

FIGURE 2. U.S. NEONATAL INTENSIVE CARE ADMISSION RATES BY WEEK OF ELECTIVE DELIVERY, 2009

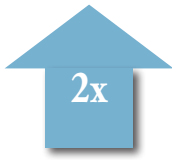


Source: Clark et al. (2009). *Obstetrics & Gynecology*, 200(156): e1-e4.

Early Elective Deliveries in Mississippi



Births during 37 and 38 weeks of pregnancy in Mississippi increased 37% from 2001-2011



Early elective deliveries during 37 and 38 weeks of pregnancy doubled from 2001-2011

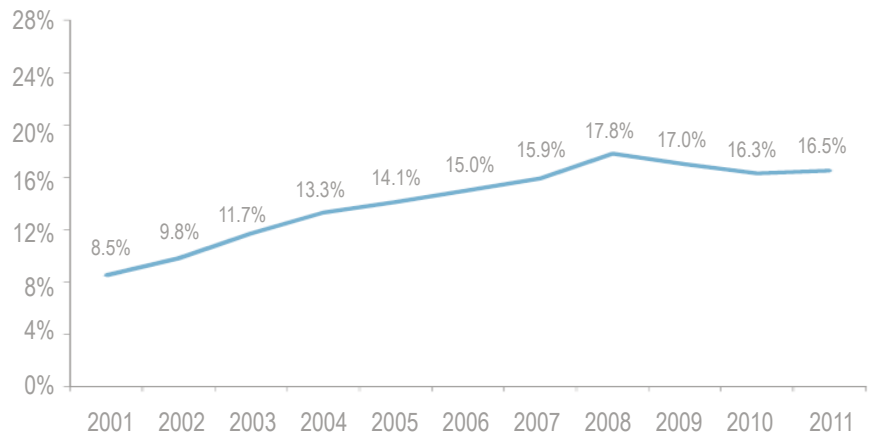


Neonatal death rates over a 5 year period in Mississippi among elective deliveries are more than 3 times higher in week 37 than in week 39 of delivery

Mississippi reflects trends found nationwide, as all the births during 37 and 38 weeks of pregnancy climbed significantly ($p < .01$) from 2001 to 2011. During the same time frame, all the births at 39 weeks or later in pregnancy, elective or not, declined significantly ($p < .01$) in Mississippi.

There was also a statistically significant ($p < .01$) rise in early elective deliveries during 37 and 38 weeks of pregnancy in Mississippi from 2001 to 2011 (Figure 3), which leveled off after 2008. However, over the span of the last decade, early elective deliveries doubled statewide.

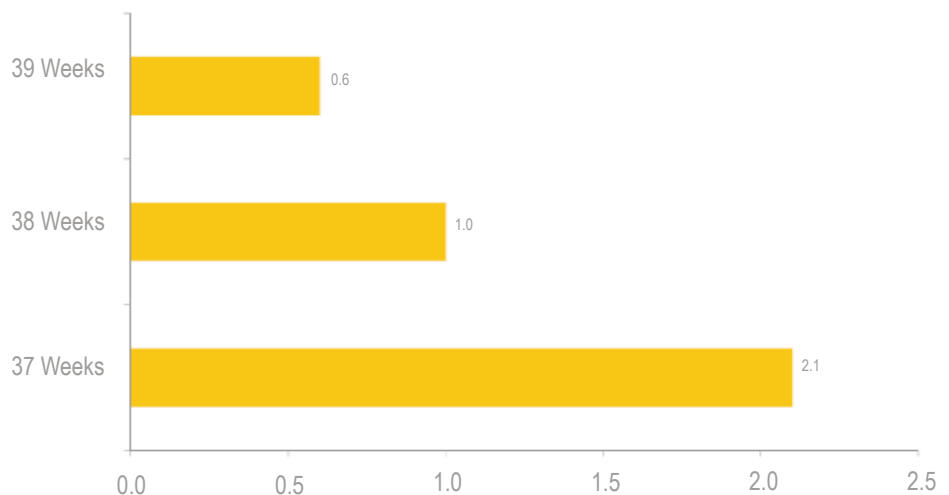
FIGURE 3. EARLY ELECTIVE LIVE BIRTH TRENDS FOR 37 AND 38 WEEKS OF GESTATION IN MISSISSIPPI FROM 2001-2011



Source: Mississippi Department of Health. (2013). Office of Vital Statistics, 2001-2011.

Figure 4 shows babies born electively in Mississippi during 37 and 38 weeks of gestation compared to babies born during 39 weeks of gestation had significantly ($p < .05$) higher death rates within the first month of life.

FIGURE 4. EARLY ELECTIVE DELIVERY AND 39 WEEK DELIVERY NEONATAL DEATH RATES PER 1,000 LIVE BIRTHS IN MISSISSIPPI, 2007-2011



Source: Mississippi Department of Health. (2013). Office of Vital Statistics, 2007-2011.

Health and Medical Care Costs

INSTITUTE OF MEDICINE COSTS PER EARLY DELIVERY, 2005

U.S. ECONOMIC BURDEN	COST PER INFANT
Medical Care Services	\$33,200
Lost Productivity (labor & household)	\$11,200
Maternal Delivery Costs	\$3,800
Special Education	\$2,200
Early Intervention Services	\$1,200
TOTAL COST PER INFANT: \$51,600	

The Institute of Medicine (IOM) estimated the average economic cost of early deliveries was \$51,600 per infant in 2005. Medical care services accounted for nearly three-quarters (71%) of these costs. A majority (85%) of the medical care costs are accumulated during early infancy. Upon release of the IOM study findings, a flurry of activity among states to reduce early births ensued, in part because state Medicaid programs finance about 45 percent of all births.

To estimate the financial impact on the Texas Medicaid program, the Health and Human Services Commission reviewed early elective deliveries from Medicaid claims data. The Commission projected \$7.2 million in cost savings over a two year time frame if early elective deliveries were reduced by 8 percent.

North Carolina estimated \$2.4 million in cost savings by avoiding neonatal intensive care unit admissions after successful reductions in early elective deliveries. Efforts to reduce early elective deliveries in Ohio resulted in fewer neonatal intensive care unit admissions. Estimated medical care cost savings were \$24.8 million over 3 years, half of which were for mothers enrolled in Medicaid.

More than half of Mississippi's 40,000 births annually are covered by the state Medicaid program. These findings suggest altering early elective delivery patterns could return major cost savings.

Policies Adopted by Other States

HARD STOP POLICIES

Strictly enforced hospital policy against early elective deliveries at fewer than 39 weeks gestation.

SOFT STOP POLICIES

Policy in which health care providers agreed not to perform early elective deliveries before 39 weeks gestation.

PROVIDER EDUCATION PROGRAM

Education program that informs health care providers about the risks associated with delivery before 39 weeks of gestation.

Many states are working to improve newborn health outcomes and reduce costs associated with early elective deliveries— a modifiable risk factor. A few of the states that have had success in lowering statewide rates of early births after policy enactment are highlighted below:

Louisiana hospitals adopted policies to end early elective deliveries in concert with medical malpractice carriers' providing financial incentives. Carriers reduced provider premiums after receipt of education on reducing early elective deliveries.

Ohio implemented a public reporting program through the state's health agency. Each hospital's individual early elective delivery rate is reported statewide.

North Carolina participating hospitals adopted "hard stop" policies and used patient and provider education to reduce early elective births.

Texas legislators mandated Medicaid non-payment for elective deliveries before the 39th week of gestation.

Washington state's Medicaid program pays reduced rates for early elective deliveries and pays increased rates to hospitals achieving lowered benchmark delivery rates.

West Virginia developed public/private agency partnerships to collectively reduce early elective deliveries by targeting selected birthing hospitals across the state.

REDUCTIONS IN EARLY ELECTIVE DELIVERIES BY POLICY TYPE

POLICY TYPE	CHANGE IN RATE
Hard Stop	8.2% to 1.7%*
Soft Stop	8.4% to 3.3%**
Provider Education Only	NS

Source: Clark, et al. (2010). *American Journal of Obstetrics & Gynecology*, 203:449, e1-6.

*Statistically significant (P=.007). **Statistically significant (P=.025).

NS = No statistically significant change.

Policy Considerations

Due to the mounting evidence of the serious health consequences and health care costs documented, policies to reduce elective deliveries are being recommended by health organizations nationwide. Based on the evidence, the American College of Obstetricians and Gynecologists (ACOG) and the Association of State and Territorial Health Officials (ASTHO) suggest adoption of the following policies to reduce the incidence of early elective deliveries:

- Modify state payment policies to encourage health providers to postpone elective deliveries until at least 39 weeks of gestation (e.g. payment withholding, penalties, or bonuses).
- Encourage hospitals to adopt policies to end elective, non-medically necessary deliveries before 39 weeks of gestation.
- Partner with medical malpractice carriers to reduce premiums when providers receive education on the importance of reducing elective deliveries before 39 weeks of gestation.
- Collect and report data on early elective deliveries in order to measure and monitor progress of policy changes.

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