



Transition to using Obstetric Estimate (OE) of gestation at delivery for indicators in FHOP Databooks and other data products for LHJs

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Obstetric Estimate (OE)

- OE defined as “the best estimate of the infant’s gestation in completed weeks based on the birth attendant’s final estimate of gestation”
- Prior to use of OE, measure of gestational age was based primarily on difference between data of Last Menstrual Period (LMP) and date of infant’s birth
- Based on evidence of greater validity of OE-based data vs. LMP-based data, the National Center for Health Statistics (NCHS) is transitioning to OE beginning with the 2014 data year
- CA MCAH and FHOP also making transition to OE
- KEY IMPACT: births are less likely to be classified as preterm using OE

NATIONAL IMPACT: Gestational age using OE vs. LMP

Weeks of gestation were the same for OE-and LMP-based measures for 62.1% of all 2013 US birth records for which gestational age was known. OE was within 1 week of LMP for 83.4% of records, and within 2 weeks for 91.4%.

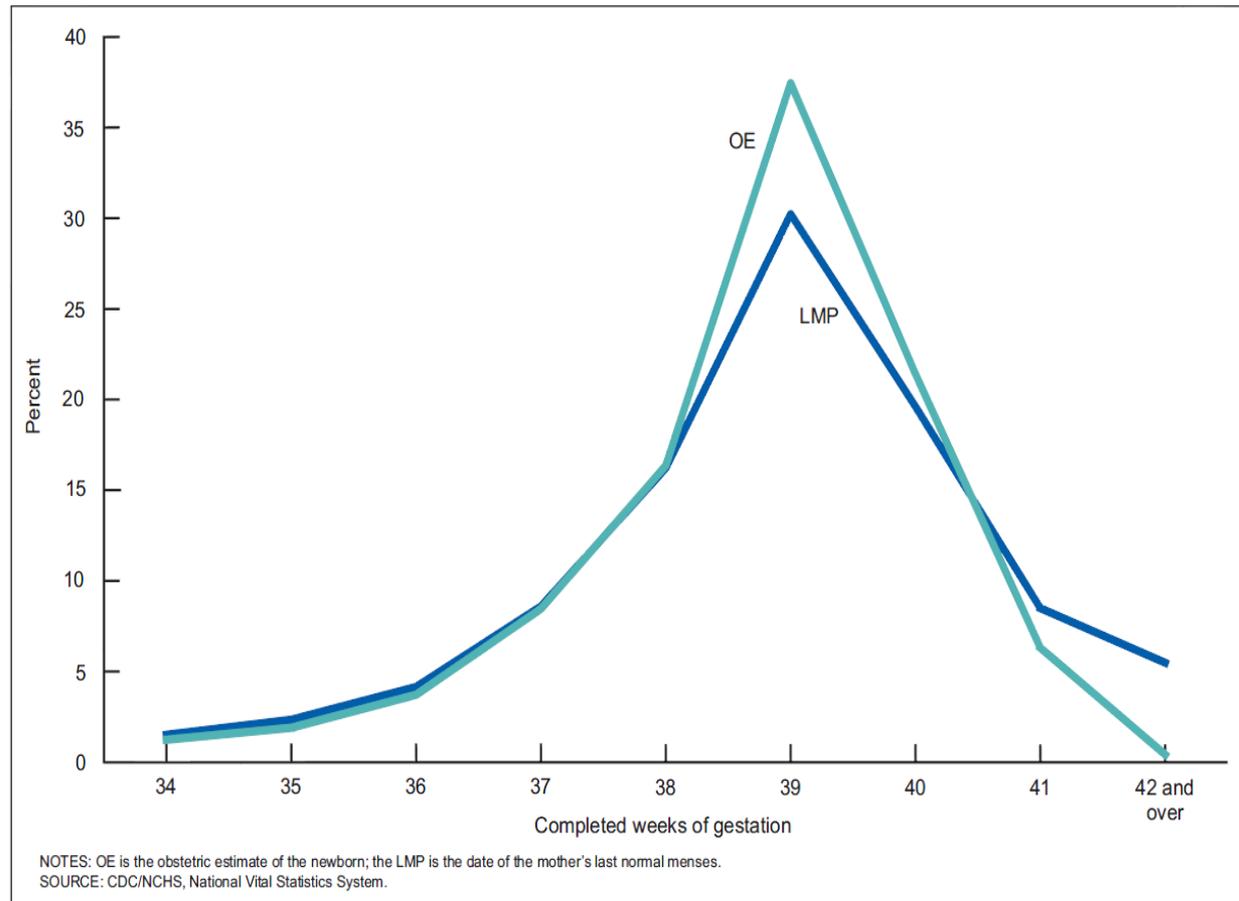


Figure 1. OE- and LMP-based measures of gestational age for selected weeks: United States, 2013

NATIONAL IMPACT: Preterm birth by OE vs. LMP

Preterm birth rates declined in the US from 2007 through 2013 for both the OE- and LMP-based measures; decline in OE preterm rate was slightly smaller than the LMP rate (8% vs. 10%)

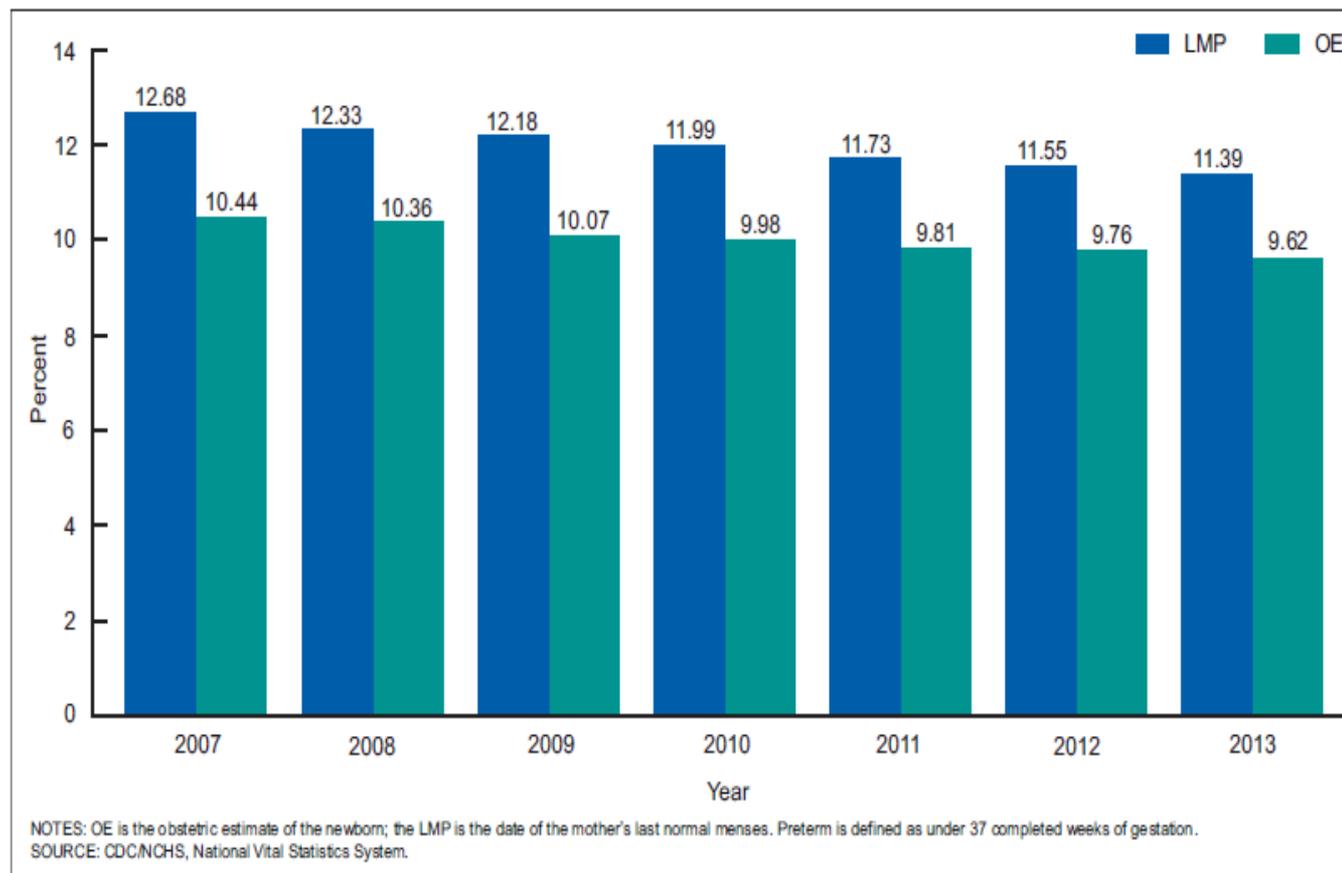


Figure 2. Preterm births, by OE- and LMP-based measures of gestational age: United States, 2007–2013

NATIONAL IMPACT: % change in Gestational age for OE vs. LMP

Early term US births declined using both measures (16% w/ OE, 13% w/ LMP); both showed similar relative increases at full term (both up 11%), divergent trends were seen at 41 weeks, and both showed declines in postterm births but greater decline using OE

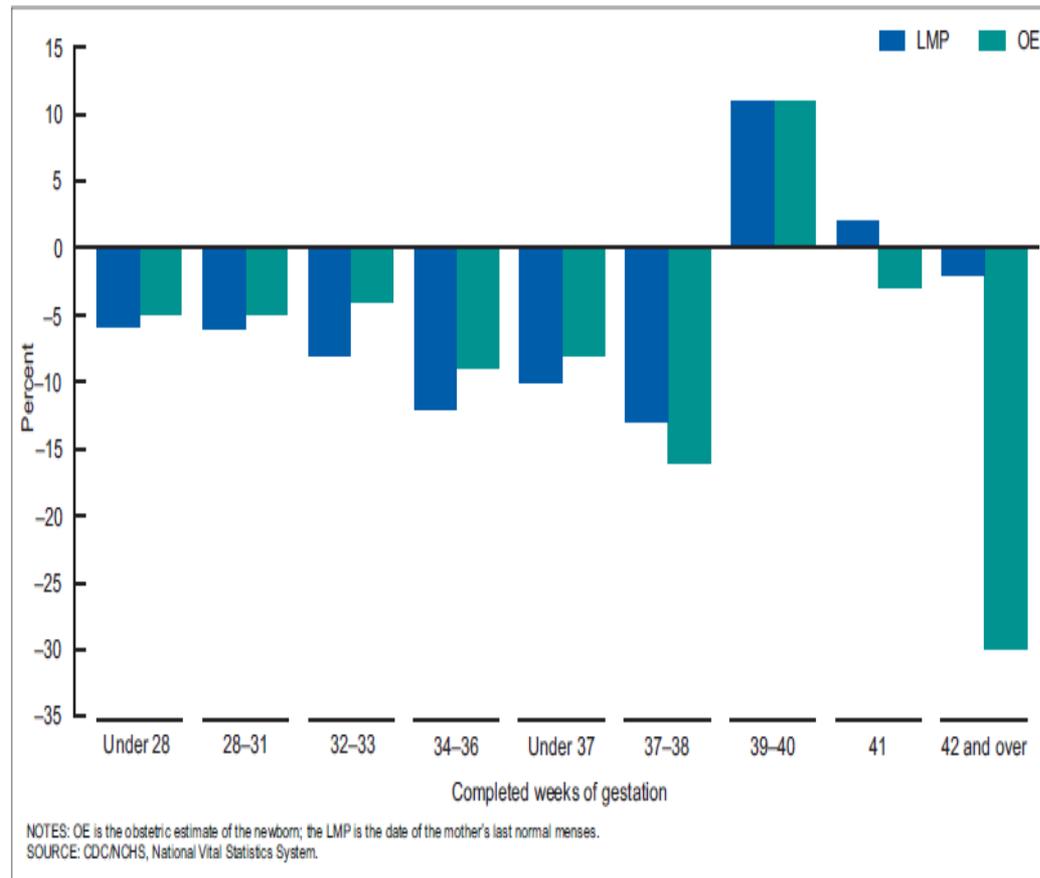


Figure 3. Percent change in OE- and LMP-based estimates of gestational age, by gestational age: United States, 2007 and 2013

NATIONAL IMPACT: Preterm birth by race/ethnicity using OE vs. LMP

For all race/ethnic groups, OE showed lower levels of US preterm, and late-and postterm births, similar levels of early term births, and higher levels of full-term births compared with the LMP

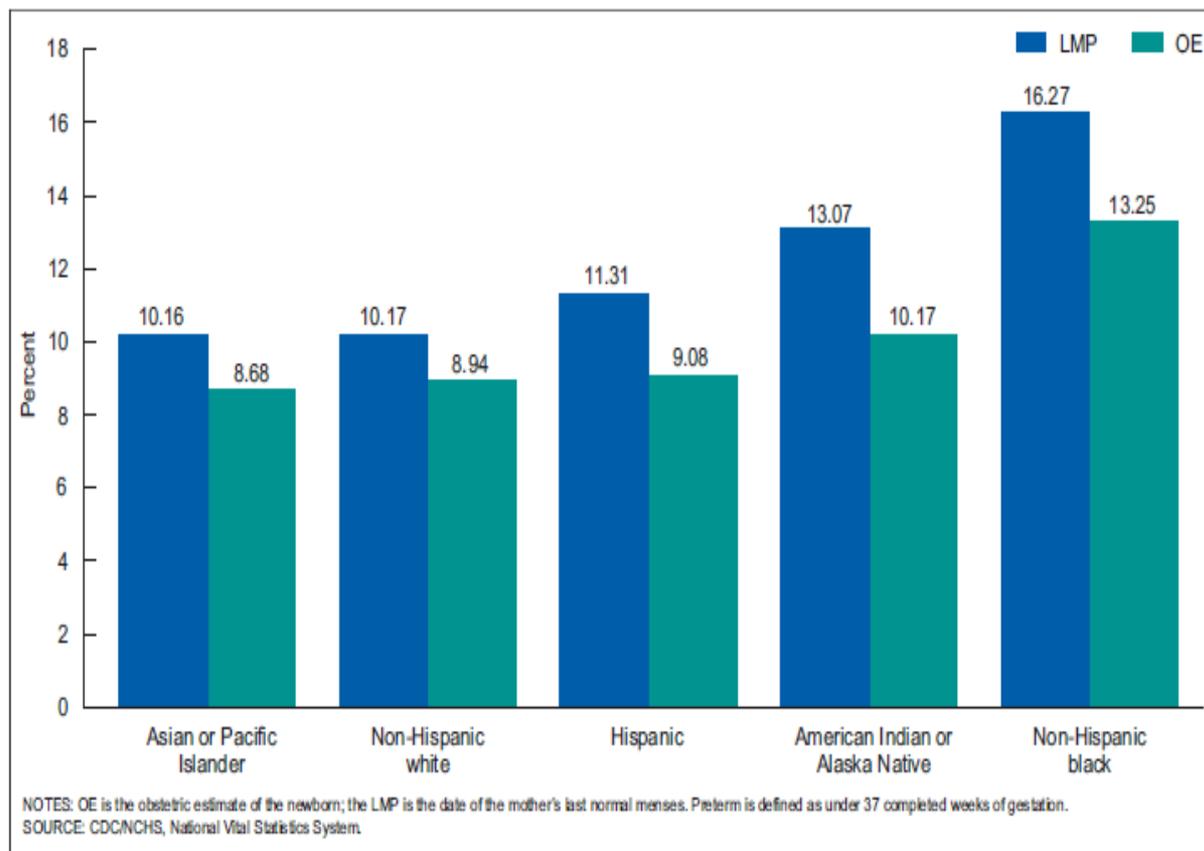


Figure 4. Preterm births by OE- and LMP-based gestational age, by race and Hispanic origin: United States, 2013

NATIONAL IMPACT: Infant mortality rates (IMR) using OE vs. LMP

- OE-based IMR among preterm US births was 19% higher than LMP-based IMR. OE-based IMRs were higher for each preterm and early term category
- OE-based IMR rates at 40 and 41 weeks were lower than LMP-based IMRs

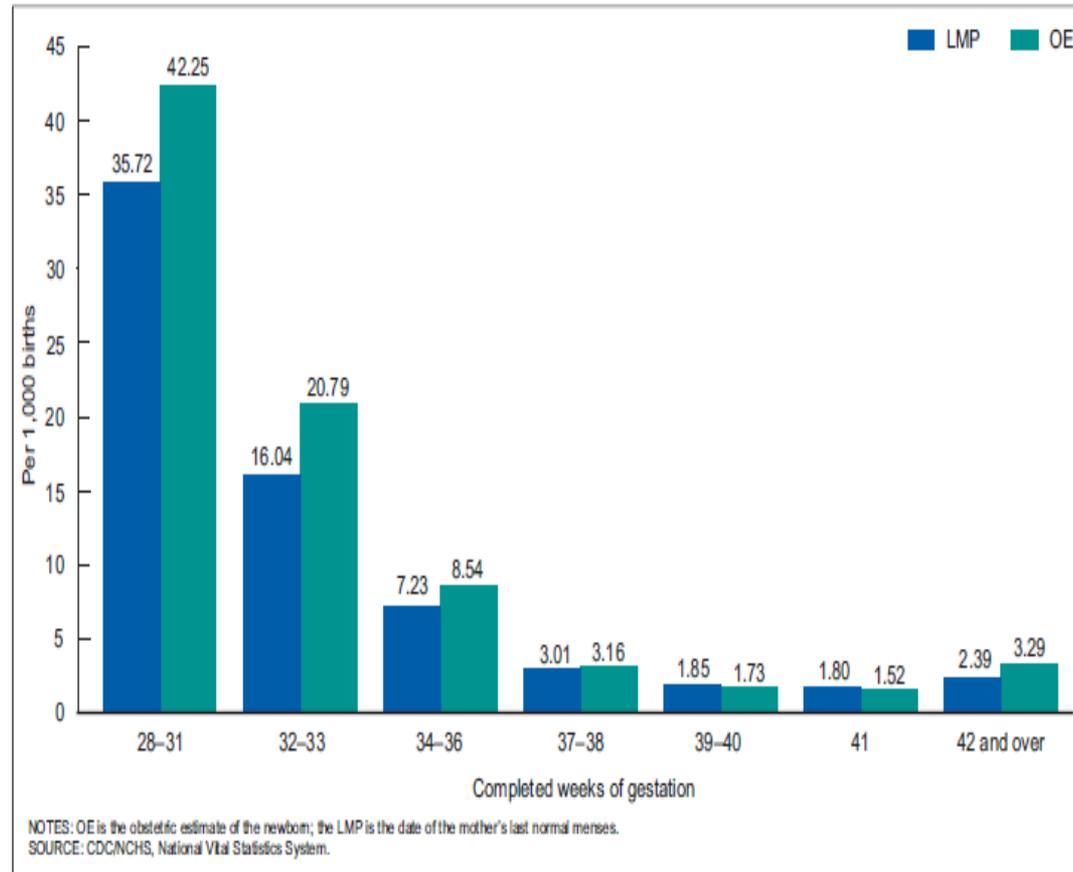
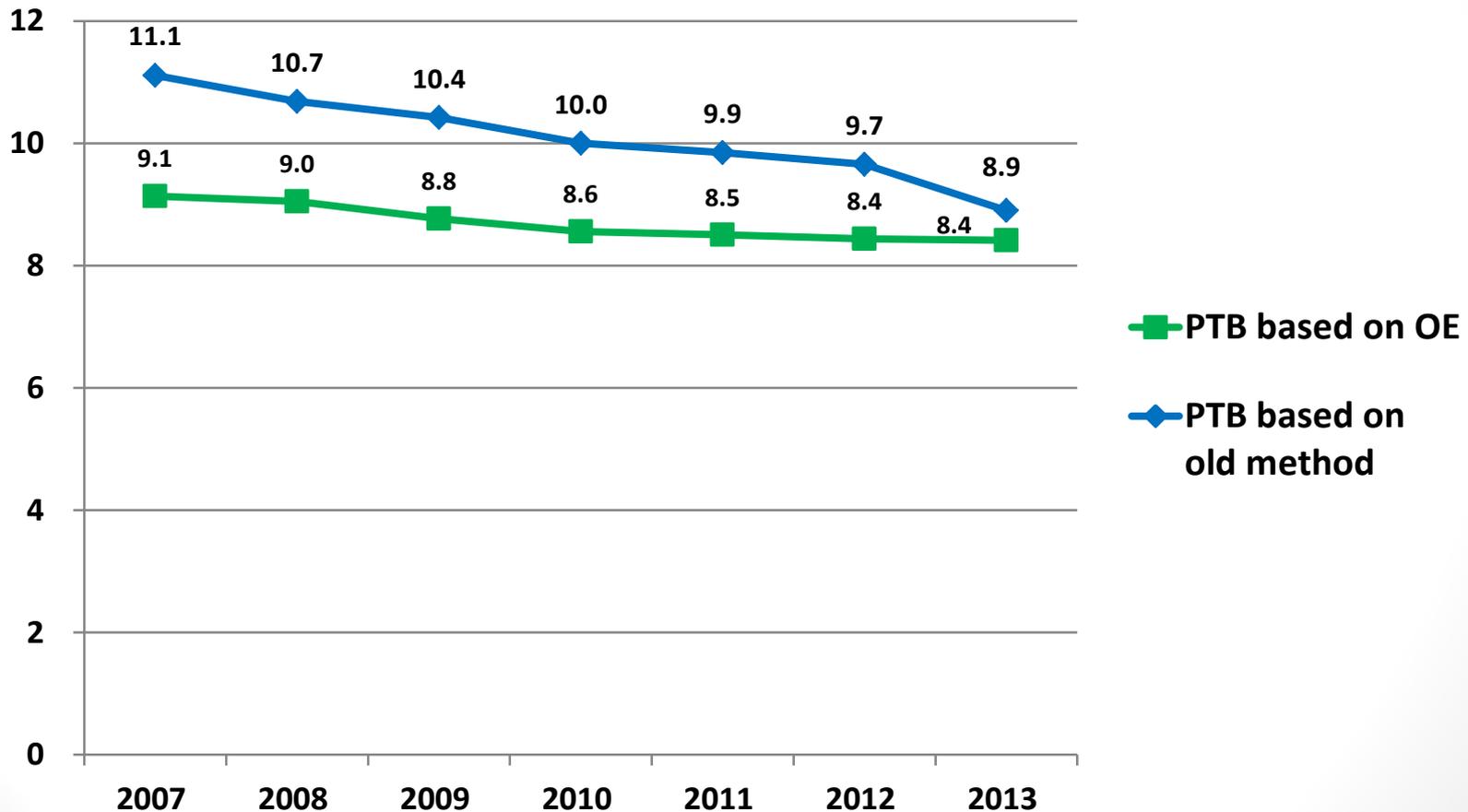


Figure 7. Infant mortality rates, by OE- and LMP-based gestational age: United States, 2013

CALIFORNIA IMPACT: PTB rates in CA using OE vs. previous method

CA Preterm Birth Rate (lt 37 wks.)



Data Source: FHOP Databooks using the Birth Statistical Master Files

IMPACT: Data quality

- Research demonstrates that the OE is an improved measure of gestational age compared with the LMP, however the OE has limitations. The NCHS has found uneven OE data quality across facilities and jurisdictions. For more info, see http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_05.pdf
- FHOP has also found local variations in OE data quality problems in California, with worse data quality in 2007 when OE was first added to the birth certificate and overall improvements in recent years

IMPACT: Indicators in FHOP data and Databooks that will change

CHSR Indicator #	Databook File	Indicator Definition
1D (Related Indicators)	PNC	Adequate prenatal care (80% Kotelchuck index) per 100 females delivering a live birth
1D (Related Indicators)	PNC	Inadequate prenatal care per 100 females delivering a live birth
2A	IPI	Births within 24 months of a previous birth per 100 females age 15 to 44 delivering a live birth
2C	CSEC	Cesarean births per 100 low risk females delivering a live birth
3A	DTHI	Fetal and infant deaths during perinatal period per 1,000 live births and fetal deaths
3C	GEST	Births less than 37 weeks gestation per 100 live births
5C	IPI	Births within 24 months of a previous birth per 100 females age less than 20 delivering a live birth

For these Databooks, we will only report on rates and trends from 2007 (when OE was added to the birth certificate) forward. There are only 7 years of data instead of the usual 12 years of data in each Databook. You may notice changes in rates as a result of the switch from LMP to OE for these indicators compared to FHOPs previously published Databooks.

For more information and questions

For more information, please see:

http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_05.pdf

Martin JA, Osterman MJK, Kirmeyer SE, Gregory ECW. Measuring gestational age in vital statistics data: Transitioning to the obstetric estimate. National vital statistics reports; vol 64 no 5. Hyattsville, MD: National Center for Health Statistics. 2015.

If you have questions about how this will impact your LHJ data, please contact:

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