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

June, 2016

Family Health Outcomes Project, UCSF
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%.

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%).

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.

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.

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.

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

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

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

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


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

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