

## **PERCENT LOW BIRTH WEIGHT (LOW BIRTH WEIGHT RATE)**

### **1. Definition:**

PERCENT LOW BIRTH WEIGHT is the number of resident live births in a specified geographic area (country, state, county, etc.) with a birth weight of less than 2,500 grams (approximately 5 pounds, 8 ounces), divided by the number of resident live births for the same geographic area (for a specified time period, usually a calendar year). This figure is multiplied by 100 to get a percent.

Note that LOW BIRTH WEIGHT RATE is synonymous with PERCENT LOW BIRTH WEIGHT.

### **2. Calculation:**

$$\frac{\text{Number of Resident Low Weight  
(<2,500 grams) Live Births}}{\text{Number of Resident Live Births}} \times 100$$

### **3. Examples:**

10,500 = low weight live births in 2005 among state residents

150,000 = live births in 2005 to state residents

$(10,500/150,000) \times 100 = \underline{7.0}$  low weight live births per 100 live births in 2005 among state residents

(Another way to say this is 7.0% of all live births in 2005 among state residents were low birthweight births.)

### **4. Technical Notes:**

- NCHS excludes births of unknown weight from the denominator when calculating percent low birth weight. States vary as to whether they similarly exclude unknown weight in the denominator; thus comparing this measure between states should be done with caution. Such an adjustment will affect the measure most noticeably if a significant proportion of births have an unknown birth weight.
- Prior to 1979, low birthweight births were defined by NCHS as a birth weight of 2,500 grams or less. Thus percent low birth weight before and after 1979 are not strictly comparable.
- Low birthweight births have been associated with negative birth outcomes, and may be an indicator of problems in access to quality health services and/or the need for prenatal care services. Preterm births, health problems during pregnancy, and use of substances such as tobacco and alcohol during pregnancy can all contribute to low weight birth outcomes.
- In less densely populated areas, annual numbers of low birthweight births may be small (<10 or 20) which would result in a percent low birth weight considered to be too unstable or unreliable for analysis. Adding additional years (three or five-year average annual rates) and/or expanding the area to be studied should result in a larger number of low birthweight births and more reliable rates for analysis.