Birth Outcomes

About

According to the Centers for Disease Control and Prevention (CDC) National Center for Health Statistics (NCHS), Louisiana ranked 2nd in the U.S. (following only Mississippi) in 2015 for both Low Birthweight Rate and Preterm Birth Rate. Babies born too small or too early face serious health challenges after birth and as they develop. We are not alone in this problem. In 2015, about 1 of 10 infants born in the United States was born premature.

Improving these and other reproductive and birth outcomes is a high priority for the health agency in serving Louisiana families and children. The CDC and LDH Tracking Programs collect and compile data on health, environmental and population measures that can help analyze and better understand poor health outcomes. They are helping to work towards new health interventions that will change and improve these rankings.

Low Birth Weight

Low birthweight is defined as babies born weighing less than 2,500 grams or 5.5 pounds.
 Birth weight is the weight of the newborn measured immediately after birth. Birth weight is a critical health measure, and some studies have shown that low birth weight is an important predictor of future morbidity and mortality.

Premature Births

 A baby is considered premature if he or she is born before the 37th completed week of pregnancy, also known as gestation. A baby is considered very premature if he or she is born before the 32nd completed week of pregnancy.

Infant Mortality

 Thankfully, infant mortality rates are decreasing in Louisiana and in the U.S. However, sadly, Louisiana along with several other southern U.S. states had some of the highest numbers of infant deaths in 2016 (America's Health Rankings, United Health Foundation).

Fertility

Fertility refers to the ability to conceive children. According the CDC, about 6% of women in the United States of reproductive age, aged 15-44 years, have difficulty getting pregnant or carrying a pregnancy to term. Infertility may be the result of many different factors including age, existing medical conditions, and possible exposure to environmental contaminants. Total fertility rate (TFR) represent the ratio of live births in an area to the population of women of reproductive age in that area. Total fertility differs from other common fertility measures such as the general fertility rate (GFT) in that it adjusts for age-specific differences in fertility.

Male/Female Sex Ratio

 The sex ratio is a proportion relating the number of babies born male to number of babies born female. The expected sex ratio at birth is 105 boys born for every 100 girls, which results in male/female sex ratio of 1.05. If a parish has a sex ratio greater than one, that means more male babies were born than female babies for that time period. If a parish has a sex ratio less than one, that means that more female babies were born than male babies for that time period.

The LDH Tracking Program collects the following measures related to mortality:

- Infant mortality: the death of an infant before 1 year of age
- Neonatal mortality: the death of an infant before 28 days of age
- Post-neonatal mortality: the death of an infant on or after 28 days of age and before 1 year of age
- Perinatal mortality: the death of an infant after 28 weeks of gestation and before 7 days of age

About the Measures

Nationally Consistent Data and Measures (NCDMs) were developed by the CDC Environmental Public Health Tracking Network. The purpose of NCDMs is to ensure compatibility and comparability of data and measures useful for understanding the impact of our environment on our health. The following descriptions of measures are used when calculating rates and percentages for the data.

- Low Birth Weight
 - Percent of singleton term low birth weights (less than 5.5 pounds or 2500 grams)
 - Percent of singleton term very low birth weight (less than 3.3 pounds or 1500 grams)
- Prematurity
 - o Percent of live singleton preterm births (Less than 37 weeks gestation)
 - Percent of live singleton very preterm births (Less than 32 weeks gestation)
- Mortality
 - Infant Mortality Rate: infant deaths occurring before 1 year of age per 1,000 live births
 - Neonatal Mortality Rate: infant deaths occurring before 28 days of age per 1,000 live births
 - Post-neonatal Mortality Rate: infant deaths occurring on or after 28 days and before 1 year of age per 1,000 live births
 - Perinatal Mortality Rate: fetal deaths occurring after 28 weeks of gestation or infant deaths before 7 days of age per 1,000 fetal deaths and live births
 Fertility
- Total Fertility Rate
 - The number of live births per 1,000 women of reproductive age (15 44 years)
- Male/Female Sex Ratio
 - Male to Female sex ratio at birth

About the Data

Counts and rates based on fewer than 5 cases are suppressed. Suppressed rates are indicated
with an asterisk (*). Suppression is a statistical practice that is used to protect patient
confidentiality and potentially identifying information by withholding or excluding small
numbers within a specific demographic or geography. This is a standard procedure used to
comply with the Health Insurance Portability and Accountability Act's (HIPAA) Privacy Rule as

- well as for the protection of Vital Records Data in compliance with their health data privacy protections.
- The mortality rates with a relative standard error greater than 30% indicate that data do not meet standards of reliability or precision. Generally, the mortality rates based on fewer than 12 cases have a relative standard error (RSE) over 30%.
- Low birth weight and prematurity births measures are calculated for singleton births only. Other measures, such as those calculated by the Louisiana Department of Health Bureau of Health Statistics may compute these measures for all births. Be careful to note these differences in calculation if comparing these values or datasets.
- In 2012-2015 data, the measure used to determine the gestational age of the newborn was the
 obstetric estimate of gestation at delivery. The primary measure used to determine the
 gestational age of the newborn from 2000 to 2011 was the interval between the first day of the
 mother's last normal menses at the date of birth and the cases where the first day of the
 mother's last normal menses at the date of birth was missing along with the obstetric estimate
 of gestation at delivery.
- Fertility measurement is subject to error for the reasons of maternal recall or misidentification
 of the mother's last normal menses, because of post conception bleeding, delayed ovulation, or
 an intervening early miscarriage.
- These measures use the address reported by the mother on the date of delivery and may not reflect where the mother lived or worked during her pregnancy. If parish of residence was missing, the parish of occurrence was used instead.
- Since it may be difficult to distinguish between a death shortly after birth and a live birth, it is important to note that there are some limitations to data on fetal deaths and infant deaths within the first seven days. Some births and deaths may be excluded.
- Differences in infant mortality rates may be associated with a number of factors including:
 access to and quality of care, maternal characteristics such as education level, and
 environmental exposures. No conclusions can be drawn about observed differences in rates
 without conducting studies to evaluate alternative explanations.
- Numbers and rates may differ slightly from those contained in other publications. These
 differences may be due to file updates, differences in calculating rates, diagnostic techniques
 reported, Nationally Consistent Data and Measures standards for processing, and updates in
 population estimates.
- Limitations should be noted when comparing these data to those from other states.

Disclaimer

Data are intended to spur further research and should be used only as a starting point to understanding how the environment and other contributing factors may be connected to disease. Datasets presented on this site are intended to answer some basic questions, but should ultimately lead to further inquiry and more detailed study.

Data limitations should be noted if conducting exploratory ecological studies with these data. Limitations may include data gaps, reporting discrepancies (for example, a disruption of reporting or instrument recording following hurricanes) and insufficient data on all potentially confounding factors. There are numerous additional factors which may contribute to disease onset. These include genetics, access to health care, existing health conditions, medicines, other chemical substances we come into

contact with or ingest, nutrition, route and duration of exposure, level of activity, level of stress, and many others.

Responsible use of this data therefore requires exercising caution when drawing conclusions based solely on views of the limited available data. Any perceived relationship, trend, or pattern apparent in the data should not be interpreted to imply causation; may in fact be unrelated; and should be regarded as preliminary, and potentially erroneous, until more in-depth study and if applicable, statistical evaluation, can be applied. The LDH Bureau of Health Informatics and Environmental Public Health Tracking Program cannot guarantee the completeness of the information contained in these datasets and expressly disclaim liability for errors and omissions in their content.

Data Sources

- LDH Bureau of Family Health
- LDH State Registrar and Vital Records
- U.S. Census Bureau

Additional Information

- LDH Bureau of Family Health
- CDC National Vital Statistics System (NVSS) Birth Data
- CDC National Vital Statistics System (NVSS) Mortality Data
- CDC Reproductive Health Info
- National Institute of Child Health and Human Development

Questions

• Email: <u>healthdata@la.gov</u>