

Definitions and Technical Calculations (Page 1 of 3)

Residence Data - Data compiled on the basis of the place of residence of the decedent (deaths) or the place of residence of the child's mother (births). For example, a child who is born in Denver, Colorado (Denver County) but the mother claims residence in Casper, Wyoming (Natrona County) would be included in the resident count for Natrona County. Wyoming receives birth and death certificates from other states for Wyoming residents that were born or died in the other state. Temporary residence such as a visit, business trip, or vacation is not considered the usual place of residence.

Residence data is mostly used in the birth tables because Wyoming does not have a tertiary (level 3) care unit for those babies who need extra care. Consequently, many high risk births occur out of state. Resident data is important to programs such as a statewide breastfeeding effort that targets residents.

Occurrence Data - Data compiled on the basis of where the event actually occurred, regardless of the person's place of residence. For example, a person died in Laramie, Wyoming (Albany County) but claimed residence in Goshen, Wyoming (Platte County) would be included in the occurrence count for Albany County. This data would also include a non-resident of Wyoming who died in Wyoming. For example, a resident from Denver, Colorado (Denver County) that died in Casper, Wyoming (Natrona County) would be included in the occurrence count for Natrona, County. This individual would not be included in any resident counts.

Occurrence data can be important to show the patterns of intra-state and inter-state mobility for health care needs. For example, a major birthing hospital in a large city near the state's border will attract mothers from other areas of the state as well as from the neighboring state. In Wyoming, several counties including Big Horn, Crook, Niobrara, and Sublette do not have birthing facilities within their borders; consequently, mothers travel to other areas of Wyoming or outside of Wyoming to give birth. This is also true for those individuals that die. They may seek care at a major hospital outside of the state.

Live Birth - A birth that shows any sign of life after delivery.

Low Birth Weight Baby - A baby born weighing less than 2500 grams or 5 pounds 8 ounces.

Preterm Baby - A baby born before 37 weeks gestation.

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Adequacy of Prenatal Care Utilization Index (APNCU) - A measure of prenatal care utilization that was developed by Kotelchuck and examines two dimensions. The first dimension examines the timing of initiation and the second dimension looks at the ratio of actual number of visits to expected number of visits. American College of Obstetricians and Gynecologists (ACOG) recommends 14 visits. Rates are classified as “Adequate Plus, Adequate, Intermediate, or Inadequate.”

- **Adequate Plus** - Defined as prenatal care starting in the fourth month and 110% or more of recommended visits.
- **Adequate** - Defined as prenatal care starting in the fourth month and 80-109% of recommended visits.
- **Intermediate** - Defined as prenatal care starting in the fourth month and 50-79% of recommended visits.
- **Inadequate** - Defined as prenatal care starting in the fourth month and less than 50% of recommended visits.

Maternal Death - A death of a mother caused by complications of pregnancy, childbirth, or the puerperium period.

Infant Death - A death of a live born infant under one year of age.

- **Neonatal Death** - A death of a live born infant under 28 days of age.
- **Post-Neonatal Death** - A death of a live born infant between 28 and 364 days of age.

Fetal (Stillborn) Death – Death taking place after 20 weeks gestation and before birth.

Tertiary care – Specialized consultative health care, in a facility that has personnel and facilities for advanced medical investigation and treatment.

Drug Overdose Deaths – Beginning in late 2016, a change in accuracy of reporting drug specific drug overdose deaths began. A very significant drop in percentage of overdose deaths that were specified caused issues with a comparison of specific drug overdoses throughout time. Due the changes in reporting data from 2016 to 2017 should be cautiously done. Prescription drug overdose deaths are likely undercounted from prior years due to the high number of unspecified drugs that would have been counted in this category. For example, even though there is an decrease from 2016 to 2017 in the prescription drug overdose deaths, it is highly likely this decrease in numbers would be far greater if the 19 unspecified drugs in 2016 where counted as a prescription drug overdose. The likelihood that these 19 would end up as prescription drug overdose deaths is high.

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Crude Birth Rate – Number of live births per 1,000 total population.

$$\left(\frac{\text{Live Births}}{\text{Total Population}} \right) * 1000$$

Fertility Birth Rate – Number of live births per 1,000 women 15-44 years of age.

$$\left(\frac{\text{Live Births}}{\text{Females Ages 15-44}} \right) * 1000$$

Crude Death Rate – Number of deaths per 100,000 population.

$$\left(\frac{\text{Deaths}}{\text{Total Population}} \right) * 100,000$$

Infant Death Rate – Number of infants under one year of age that died per 1,000 live births.

$$\left(\frac{\text{Infant Deaths}}{\text{Live Births}} \right) * 1000$$

Age-Adjusted Death Rate – Rates are used to statistical allow comparison between different size groups. It is computed by applying national age-specific death rates to a standard population. Age-adjusted rates should not be compared to crude rates.

Marriage Rate – Number of marriages per 1,000 population.

$$\left(\frac{\text{Marriages}}{\text{Total Population}} \right) * 1000$$

Divorce Rate – Number of divorces per 1,000 population.

$$\left(\frac{\text{Divorces}}{\text{Total Population}} \right) * 1000$$

Links for more information

Wyoming Department of Health Vital Statistics Services – <https://health.wyo.gov/admin/vitalstatistics/>

Wyoming Department of Health - <https://health.wyo.gov>

Wyoming Department of Transportation- http://dot.state.wy.us/home/planning_projects/Traffic_Data

Wyoming Department of Administration and Information - <http://eadiv.state.wy.us/>
Economics Analysis Division

Center for Disease Control and Prevention (CDC) - <http://www.cdc.gov/>

National Center for Health Statistics (NCHS) - <http://www.cdc.gov/nchs/>

National Vital Statistics System - <http://www.cdc.gov/nchs/nvss.htm>

CDC Wonder (online national data) - <http://wonder.cdc.gov/>

Census Bureau - <http://www.census.gov/>

Wyoming Hospital Association Data - <http://wyopricepoint.com/consumer.aspx>