Title: Prenatal care in Chicago, by year, 1999 – 2009

Brief Description: This dataset contains the annual number and percent of live births by the trimester in which the mother began prenatal care, with corresponding 95% confidence intervals, by Chicago community area, for the years 1999 – 2009.

Description: CDPH calculated the indicators using geocoded annual birth certificate datasets supplied by the Illinois Department of Public Health (IDPH). Geocoding is the process of using location data, such as street address, to determine associated geographic identifiers, such as latitude and longitude, postal code, or community area. Approximately 1% of births per year in the birth certificate datasets are classified as Chicago residents but are not geocoded to a particular community area; these records are included in citywide counts and analyses only. Births classified as Chicago but for which the census tract of residence is located outside the city limits were excluded; this resulted in the exclusion of approximately one out of every 5,000 births. Indicators for Chicago as a whole are provided in the final row of the table.

A confidence interval is a range of values used to describe the uncertainty around a measurement (e.g., proportion) and serves as a measure of the variability in the data. Confidence intervals are calculated based on the standard error of the proportion, which is based on the proportion and the number of events (e.g., births). Most confidence intervals are calculated as 95% confidence intervals by convention. The 95% confidence interval can best be understood that if the measurement were conducted 100 times, 95 times the true value would be within the calculated confidence interval and 5 times the true value would be either higher or lower than the range of the confidence interval. For example, a proportion of births for which prenatal care began in the first trimester of 10% with a lower limit of 8% and an upper limit of 12% means that there is a 95 percent chance that the proportion was between 8% and 12%. Conversely, there is a 5 percent chance that the proportion was lower than 8% or higher than 12%. The 95% confidence interval reflects the stability of the proportions. A stable proportion is one that would be close to the same value if the measurement were repeated, i.e., if the proportion did not vary greatly from one year to the next. An unstable proportion is one that would vary from one year to the next due to chance alone. Wider confidence intervals in relation to the proportion indicate instability. Narrow confidence intervals indicate stability, and large fluctuations from year to year would not be expected. If differences are observed between stable proportions (those with narrow confidence intervals), then it is likely that the differences represent true variations, rather than random fluctuations in the number of births with the attribute of interest. In general, if the 95% confidence intervals of two proportions do not overlap, they are likely to be significantly different. For a description of the approach used to calculate confidence intervals for the estimates in this dataset, see pages 95-96 of the March 28, 2000 *National Center for Vital Statistics Reports* publication at http://www.cdc.gov/nchs/data/nvsr/nvsr48/nvs48_03.pdf.

Nationally, 70.8 percent of females delivering a live birth received prenatal care beginning in the first trimester in 2007. The Healthy People 2020 goal is 77.9%. (See

http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=26, MICH-10.1.)

Disclaimers: IDPH specifically disclaims responsibility for any analysis, interpretations, or conclusions. Error can result from geocoding as a result of inaccurate or incomplete source data (e.g., the recording of a person's residential residence does not include "North" or "South") or discrepancies in the reference data that is used to match addresses to their associated geographies (e.g., a particular street segment is excluded or associated to corresponding geographies incorrectly). This potential source of error should be taken into account when considering the precision of the indicators. Percent and confidence interval estimates for years in which fewer than 20 birth certificates reported a low birth weight are unreliable; this instability should be considered when making comparisons. Methods and data sources may not be identical to those used in CDPH reports published prior to November 2011.

Data Owner: Epidemiology and Public Health Informatics, Chicago Department of Public Health (CDPH).

Time Period: 1999-2009

Frequency: Updated upon receipt of annual birth certificate dataset.

Related Applications: N/A