

Heart Attack

About

An acute myocardial infarction, also known as a heart attack, occurs when the blood supply to the heart is severely reduced or completely blocked. During a heart attack, heart muscle cells do not receive enough oxygen and begin to die. The more time that passes without treatment to restore blood flow, the greater the damage to the heart.

Research has identified several factors that increase the risk of a heart attack including hypertension, low high-density lipoprotein (HDL) cholesterol, high low-density lipoprotein (LDL) cholesterol, high triglycerides, poor diet, obesity, and having a family history of heart disease. Research has also suggested a relationship between outdoor air pollution and an increased risk of heart attack and other forms of heart disease. A number of studies, usually focused on the elderly, have reported associations between air pollution and hospitalizations for heart attacks and other forms of heart disease. In addition, exposure to secondhand tobacco smoke, a type of air pollution, is linked to an increased risk of coronary heart disease.

About the Measures

These measures were developed following the Centers for Disease Control and Prevention (CDC) Standards for Nationally Consistent Data and Measures (NCDMs) within the 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. For more information on heart attack measures, please visit the Louisiana Department of Health (LDH) Tracking Program metadata webpage.

The LDH Tracking Program collects data on the following measures for hospitalizations with a primary diagnosis of heart attack among persons 35 and over:

- Average Daily Number
- Age-Adjusted Rate
- Crude Rate
- Number

For a detailed definition of each measure, please refer to the LDH Tracking [Glossary of Terms](#)

About the Data

The following data limitations may exist for this dataset:

- Records are selected using primary discharge diagnosis and admission date. Only persons admitted to hospital as inpatients (admitted for at least 24 hours) are included.
- Hospitalization data should not be considered complete until the subsequent year of data has been published. Since the source data capture hospital discharges (rather than admissions), patients admitted toward the end of the year and discharged the following year will be omitted from the current year dataset. This may lead to the number of hospitalization admissions in the most recent year of published Tracking data to be understated.

- Data is generally updated on an annual basis. It is however important to note that there is usually a one to two year lag period before data are available from the data owner.
- Fluctuations in rates from year to year between parishes may occur, that do not reflect a true change in health outcomes over time or geography. These can complicate trend analysis. Distortion may occur from several identified quality controls related to data entry, transfer, or extraction; hospital closure or reorganization; incomplete hospital reporting; limitations of the geocode; major population shifts due to hurricanes; and other possible factors. Rate fluctuations have been found to impact both populous and rural parishes. Work is ongoing to identify and improve both the data source(s) and processing steps along the workflow.
- Counts and rates based on 5 or fewer cases are suppressed where population is less than 100,000. 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 federal Health Insurance Portability and Accountability Act's Privacy Rule.
- Rates shown in italics have a relative standard error greater than or equal to 30% and may be unreliable. Rates calculated based on small numbers, generally less than 12, may be unstable and should be interpreted with caution.
- The 95% confidence intervals (CI) for rates are shown as error bars on corresponding graphs. Statistical significance is determined by comparing 95% confidence intervals. If the confidence intervals of two rates do not overlap, there is a statistically significant difference between them.
- 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, NCDMs standards for processing, and updates in population estimates.
- Practice patterns and payment mechanisms may affect diagnostic coding and decisions by health care providers to hospitalize patients.
- Records for persons receiving care at home, in emergency rooms and in outpatient settings are not included in these data.
- Veterans Affairs, Indian Health Services and institutionalized (e.g. prison) population records are also not available in these data. This may result in smaller rates.
- Records for persons living in Louisiana may not be included if the hospitalization occurred out of state.
- Persons who die from a heart attack before being admitted to the hospital are not included in this dataset.
- Patients may be exposed to environmental triggers in multiple locations, but hospital discharge geographic information is limited to patient residence and hospital location.
- Differences in rates by time or between parishes may reflect differences or changes in diagnostic techniques and criteria and in the coding. Differences in rates by area may also be due to different socio-demographic characteristics and associated behaviors. When comparing rates across parishes, it is important to note that a variety of non-environmental factors, such as access to medical care, personal behaviors such as tobacco use, health status and diet affect the likelihood of being hospitalized for a heart attack.
- Persons hospitalized for a heart attack multiple times throughout the year may be counted for each hospitalization, thereby raising the rates. Although duplicate records and transfers from one hospital to another are excluded, the measures are based upon events, not individuals. When multiple admissions are not identified, the true prevalence will be overestimated.

- While every effort is made to exclude records of transfers between hospitals for heart attack hospitalizations, this measure may still include some transfers for the same person for the same event. Thus, variations in the percentage of transfers or readmissions for the same heart attack event may vary by geographic area and impact rates.
- Because census data are only available every ten years, the postcensal population estimates are used when calculating rates for the intervening years. These estimates may not accurately reflect demographic changes for years in which large population shifts occur.

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

- [Louisiana Department of Environmental Quality](#)

Additional Information

- [LDH Frequently Asked Questions about Mercury in Fish](#)
- [LDH Current Mercury Advisories](#)
- [LDH - Eat Safe Fish](#)
- [U.S. EPA and FDA - Advice About Eating Fish \(PDF\)](#)
- [EPHT - Environmental Sampling](#)

Questions

- Email: healthdata@la.gov