

Michigan Environmental Public Health Tracking

Glossary

A

AGE-ADJUSTED RATE - The [rate](#) of an event occurring within a population. Rates are adjusted for age because some diseases affect people of certain age groups more than others.

AGE GROUP – A group of people of similar ages.

AIR QUALITY INDEX (AQI) - An [indicator](#) of daily air quality. [AQI](#) indicates how clean or polluted the air is and what health effects might be of concern. The AQI focuses on health effects that may be experienced within a few hours or days after breathing polluted air.

ASTHMA - A disease that causes swelling in the airways, wheezing, and coughing. This may restrict the ability to get oxygen to the lungs, making it hard to breathe.

AT-RISK GROUP - A group of individuals with common characteristics that make them more likely to have a common environmental exposure or develop a specific disease.

B

BIAS - The result of a systematic error in the design, conduct, or analysis of a study which leads to conclusions different from the truth.

BIRTH COUNT - Number of live births.

BIRTH DEFECT – A condition that is present before or at birth that can affect almost any part of the body such as the heart, brain, or foot. Birth defects may be found at birth or later in infancy and can vary in severity. Birth defects may be genetic or the result of the parents' environmental exposures.

BIRTH YEAR – The year a person or a group of people were born.

BIRTHWEIGHT - An infant's weight at or shortly after birth.

BLOOD LEAD LEVEL (BLL) - The amount of [lead](#) in the blood, given in the measurement of micrograms per deciliter (µg/dL).

BURDEN - The impact of a health problem on a [population](#). The impact may be in terms of cost, severity, or total number affected.

C

CAPILLARY TEST - a blood test where blood is drawn from the finger.

CARBON MONOXIDE (CO) - A colorless, odorless gas. Carbon monoxide is found in fumes produced when fuel is burned in vehicles, boats, generators, furnaces, water heaters, fireplaces, grills, small engines, and other items. Exposure to carbon monoxide can cause headache, dizziness, shortness of breath, nausea, vomiting. Exposure to carbon monoxide at high amounts can cause death.

CARCINOGEN - A substance that is known to cause cancer or promote cancerous tumor growth.

CENSUS - The count of an entire population. This census usually includes counts related to about individuals' residence, age, sex, occupation, ethnic group, marital status, birth history, and relationship to head of household.

CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC) - A branch of the U.S. Department of Health and Human Services. CDC is the primary Federal agency for conducting and supporting public health activities in the United States.

CHILDBEARING AGE - Women aged 15-44 years. Also known as [reproductive age](#).

COMMUNITY WATER SYSTEM (CWS) - A public water system that provides year-round service to at least 25 residences or least 15 service connections.

COMPOUND - A group of chemical [contaminants](#) in the environment. Compounds are identified by their specific names.

CONCENTRATION - A measure for the amount of something that is mixed with another material. For example, the amount of ozone that is mixed with other compounds in the air is an example of ozone concentration.

CONFIDENCE INTERVAL - A range of values for a variable (for example, a rate) that provides a specified probability of including the true value of the variable. The specified probability is called the confidence level, and the end points of the confidence interval are called the confidence limits. For example, the age-adjusted hospitalization rate for Wayne County in 2012 was 25.6 (per 10,000 people). The confidence limit is (24.9, 26.3).

CONTAMINANT - A substance that is either present in an [environment](#) where it does not belong or is present at levels that might cause harm to humans or the environment.

CONTAMINANT LEVEL - A measure of how much of a [contaminant](#) is present in the [environment](#).

CONTAMINATION - The introduction of harmful or hazardous matter into the [environment](#).

COUNTY POPULATION - Census estimate of the number of people living in a particular county.

CRUDE RATE - The total number of cases divided by the total number of persons at risk in the population for a certain time period. This result is typically multiplied by a large number (for example, 100,000). This rate is termed 'crude' to distinguish it from an [age-adjusted rate](#).

D

DEMOGRAPHIC INFORMATION - The characteristics or classifications used to describe a group of people. Examples include age or sex.

DENOMINATOR - the number of people at risk for a disease, shown as the bottom number in a ratio or fraction.

DIAGNOSIS CODE - A combination of letters and numbers that are used to identify/classify diseases, disorders, injuries, and symptoms. DISINFECTION BY-PRODUCTS - A group of chemicals that form when disinfectants used in drinking water (such as chlorine) react with bromide and/or naturally occurring organic matter in the water, such as plant material.

E

EARLY NEONATAL - A period of development that begins at birth and ends at seven completed days after birth.

EMERGENCY DEPARTMENT (ED) VISITS - Number of people that have visited emergency rooms.

ELEVATED BLOOD LEAD LEVEL (BLL) - A blood lead level that is equal to or greater than 5 µg/dL (micrograms per deciliter) based on the highest [venous test](#). If the child did not have a venous test, the highest [capillary test](#) (or highest unknown test when no capillary result is available) is used. A test is recorded as unknown when it is not known if the test was a venous or capillary test.

ENVIRONMENT - The air, water, and land surrounding and affecting people, animals, and plants.

ENVIRONMENTAL HEALTH - A field of science that studies how the environment influences human health and disease.

ENVIRONMENTAL PROTECTION AGENCY (EPA) - The federal agency responsible for protecting human health and the environment.

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ENVIRONMENTAL PUBLIC HEALTH TRACKING - The ongoing collection, integration, analysis, interpretation and dissemination of data on environmental hazards, exposure to environmental hazards, and health effects potentially related to exposure to environmental hazards.

EXPOSURE - Contact with a substance by breathing it, eating it, or absorbing it through the skin. Acute exposures occur in a short period of time. Chronic exposures occur over a long period of time.

F

FERTILITY - The ability to conceive, to become pregnant, or to give birth to a live child.

FERTILITY RATE - Number of births per 1,000 women of childbearing age (15-44 years old).

FETAL DEATH (STILL BIRTH) - The death of a fetus at any time during pregnancy.

FULL TERM BIRTH - A pregnancy that lasts between 39 weeks, 0 days and 40 weeks, 6 days.

G

GEOCODE - The process of identifying the coordinates (longitude and latitude) of a location. This process is used so data and information can be shown on maps.

GESTATION - The process of carrying an embryo or fetus between conception and birth.

GESTATIONAL PERIOD - The time between conception and birth, usually about 280 days (40 weeks).

GROUNDWATER - Water that is underground in sand, soil, gravel, or rock.

H

HALOACETIC ACIDS (HAA5) - Chemical compounds that can form during disinfection of drinking water with chlorine and chloramine. See [disinfection-by-products](#).

HAZARD - Any situation, substance, or event that poses a threat to human health.

HEALTH - A state of physical, mental, and/or social well-being.

HEALTH EFFECT - Anything that leads to a positive or negative change in a person's physical or mental health or social well-being.

HEART ATTACK - An acute health event that happens when part of the heart muscle gets damaged or dies because it isn't getting enough oxygen through blood flow. This is usually caused by a blocked artery in the heart.

HIGH-RISK GROUP - A group of people that are more likely than other groups to experience a specific exposure or develop a certain disease.

HOSPITAL DISCHARGE DATA - A collection of information (for example, patient age, sex, diagnoses) related to an inpatient hospitalization.

I

INCIDENCE RATE - The number of new cases (incidents) of a disease that develop in a certain population over a period of time. The [numerator](#) is the number of new cases of a given disease occurring during a specific time period. The [denominator](#) is the number of people at risk for the disease for the same time period.

INDICATOR – A measurement describing a population's health status, environment, and other factors, and that can be used to compare changes over time or compare Michigan to the United States.

INFANT - A child from birth to less than one year old.

INFANT MORTALITY RATE - Number of infant deaths per 1,000 live births during the year.

INFERTILITY - The inability to conceive after one year of regular sexual intercourse without the use of contraception.

INPATIENT HOSPITALIZATIONS - Number of hospital inpatient (overnight) stays. The number of hospitalizations is greater than the number of people who are hospitalized because some individuals are hospitalized more than once during a year.

L

LEAD - A naturally occurring bluish-gray metal found in small amounts in the Earth's crust. Lead has many different uses including the production of batteries, ammunition, metal products (solder and pipes), and devices to shield X-rays. Due to health concerns, it has been banned as a paint ingredient since 1978 and has been banned as a gasoline ingredient since 1995. Lead affects almost every organ and system in the body. In children, exposure to lead can cause developmental and behavioral issues and anemia. In adults, exposure to lead can cause kidney disease, high blood pressure, reproductive problems, and reduced fetal growth.

LEGEND - The reference area on a map or chart that lists and explains the colors, symbols, line patterns, shadings, and notes.

LIVE BIRTH - A fetus which is alive after birth.

LOW BIRTHWEIGHT (LBW) - A birth weight of less than 5 pounds and 8 ounces.

M

MAXIMUM CONTAMINANT LEVEL (MCL) - The highest level of a contaminant that the [EPA](#) allows in drinking water.

MEAN - The average of a set of numbers which is calculated by summing all the numbers and dividing by the number of items in the set.

MEASURE – A number, percent, rate, or ratio describing an [indicator](#).

MEDIAN - The middle value in a set of values that are arranged in ascending or descending order. Within a set of numbers, half will be less than the median value and half will be greater than the median value.

MODELED MEASURES - A set of air quality measures derived from modeled data developed in collaboration with the [CDC](#) and [EPA](#).

MORBIDITY - State of being ill or diseased. Morbidity is the occurrence of a disease or condition that alters health and quality of life.

MORTALITY - Death.

N

NAAQS - National Ambient Air Quality Standards. Under the Clean Air Act, the [EPA](#) established limits for six air pollutants to protect public health and the environment. These air pollutants are [carbon monoxide](#), [lead](#), [nitrogen dioxide](#), particulate matter of 10 micrometers or less ([PM10](#)), particulate matter of 2.5 microns or less ([PM2.5](#)), [ozone](#), and [sulfur dioxide](#).

NEONATAL - The period that starts at birth and ends at 28 full days after birth.

NONCOMMUNITY WATER SUPPLY – A water system that has 15 or more service connections or provides drinking water for 25 or more individuals for at least 60 days per year.

NUMERATOR - the number of new cases of a given disease occurring during a specific time period. Shown as the top number in a fraction or ratio.

O

OZONE - A gas composed that occurs naturally in the earth's atmosphere. Ozone can be "good" or "bad" depending on its location in the atmosphere:

- "Good" ozone occurs naturally in the atmosphere, approximately 10 to 30 miles above the earth's surface. It forms a layer that protects life on earth from the sun's harmful rays.
- "Bad", or ground-level, ozone occurs in the earth's lower atmosphere, from the ground to approximately 10 miles above the earth's surface. It is the main part of smog and is usually worse in the summer months. Ground-level ozone can be harmful to health and cause worsened breathing problems.

P

PARTICULATE MATTER (PM) - A mixture of extremely small particles and liquid droplets in the air. The size of particles is directly linked to their potential for causing health problems. Once inhaled, these particles can affect the heart and lungs and cause serious health problems.

PARTICULATE MATTER 2.5 (PM 2.5, fine particulate matter, or particle pollution) - Fine particles or droplets in the air that are less than 2.5 micrometers wide, or about 30 times smaller than human hair. Outdoor sources include motor vehicle exhaust, power plants, wildfires, manufacturing processes, and the reaction of gases in the atmosphere. Indoor sources include tobacco smoke, cooking, fireplaces, and candles.

PARTICULATE MATTER 10 (PM10) - Coarse particles in droplets or air that are less than 10 micrometers in diameter. Outdoor sources include crushing or grinding operations and dust on roads. Indoor sources include dust, pollen, and mold.

PERCENTILE - A way to group data points on a similar scale. Percentiles give information about comparisons between data points. For example, if a data point is at the 95th percentile, it means 95% of all data points are below it and that the remaining 5% are above it.

PERINATAL PERIOD - The period between 28 weeks of gestation and seven complete days after birth.

PERSON-DAYS - A unit of measure that estimates the number of people potentially exposed and the number of days they were exposed.

POLLUTANT - A substance introduced into the environment that can harm human health.

POST-NEONATAL - The period of time from eight days after birth to one year of age.

POPULATION - The total number of people in a certain geographic area or in a specific group.

POPULATION SERVED - A drinking water quality measure that estimates the total number of people who get water from a public water supply within a particular area (for example, a county).

PREMATURE BIRTH (PRETERM BIRTH) - A birth that occurs before 37 full weeks of pregnancy.

PREVALENCE - The number of cases, illnesses, or conditions in a certain population at a given point in time.

PREVALENCE RATE - The prevalence divided by the population at risk of having the condition.

PREVENTION - Preventing health problems before they occur. For example, eliminating [radon](#) in the home can help prevent lung cancer.

PRIVATE WATER SUPPLY - A water system that serves a single household.

PROBABILITY - The chance that a given event will occur expressed as a percentage.

R

RACE - Groupings of people based on shared ancestry and anthropology. Race groupings are not biological designations. They were developed for the collection of standardized data. These groupings are used by state and federal agencies for record keeping, collection, and presentation of data.

RADON - A naturally occurring radioactive gas that can cause lung cancer.

RATE - An expression of the frequency with which an event (for example, the onset of a disease) occurs in a defined population.

RATIO - An expression of the relationship between a numerator and a denominator where the two usually are separate and distinct quantities, neither being included in the other (for example, the ratio of males to females).

REPRODUCTIVE AGE – Women aged 15 to 44 years of age. Also known as [childbearing age](#).

REPRODUCTIVE HEALTH - The diseases, disorders, and conditions that affect the functioning of the male and female reproductive systems.

REPRODUCTIVE OUTCOMES - Disorders that occur as a result of poor reproductive health. Reproductive outcomes include reduced [fertility](#), [infertility](#), [birth defects](#), [low birthweight](#), and [premature birth](#).

RISK - The likelihood or possibility of an outcome such as injury, disease, or death within a defined period of time. For example, a lifetime risk of 1 in 1,000,000 indicates that one person out of one million people will experience the outcome in their lifetime.

S

SEX RATIO - The [ratio](#) of males to females at birth among term single births.

SINGLETON BIRTH - Pregnancy resulting in the birth of one child.

SUPPRESSED VALUES - A value used to protect confidentiality. Rates may also be suppressed if they are statistically unreliable.

SURFACE WATER - Bodies of water that form and remain above ground, such as lakes, ponds, rivers, streams, bays, and oceans.

SURVEILLANCE - A process in which data on health and disease in a population are collected, analyzed, and reported in an ongoing basis.

T

TOTAL BIRTH COUNT - The total number of live births.

Total Trihalomethanes (TTHM) - Chemical compounds that can form during disinfection of drinking water with chlorine and chloramine.

V

VENOUS TEST - A blood test done by drawing blood from a vein in the arm.

VERY LOW BIRTH WEIGHT - A birth weight of less than 3 pounds and 5 ounces.

VERY PRETERM BIRTH - A birth that occurs less than 32 full weeks after gestation. Also known as very premature birth.

Z

ZIP (Zone Improvement Plan) CODES - A 5-digit code that identifies a specific geographic area for mail delivery.