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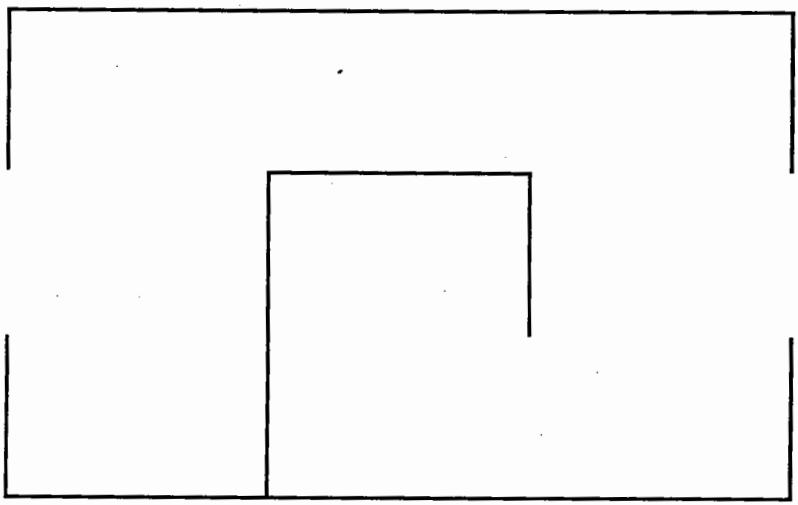
Glossary of Epidemiologic Terms



Definitions that occur in the text are repeated here for reference.

Age effect. *A change in disease incidence that is due to a biological concomitant of aging is an age effect.*

Attack rate. *The attack rate is the cumulative incidence of disease in persons who are exposed to an agent whose effect is shorter than the time of potential follow-up. The period of follow-up begins at the time of exposure and continues over a closed interval that allows the expression of all possible new cases attributable to the exposure.*

Attributable risk. See Incidence rate difference.

Base population. See Source population.

Closed cohort. *A closed cohort consists of individuals who are followed from a defined starting point to a defined end point. The membership of the group does not change, apart from mortality, from the beginning of observation to the end.*

Cohort. *Any group of individuals whose disease or mortality is measured over time is a cohort.*

Cohort effect. *Changes in disease frequency that are shared by all members of a group who entered follow-up at common time constitute a cohort effect.*

Confounding. *When imbalances in the composition of compared groups give rise to an expected value of a comparative measure that differs from the effect of the factor that defines the groups, the crude estimate of the effect of that factor is said to be confounded.*

Controls. *The controls in a case-control study are a group of persons whose exposure status collectively provides information about the distribution of exposure in the persons or person time giving rise to the cases.*

Cumulative exposure. *The cumulative exposure from time t_0 to time t_1 for an individual is the summation of all exposures endured from t_0 up until t_1.*

Cumulative incidence. *The cumulative incidence from time t_0 to time t_1 for event X is the prevalence of "history of X" at time t_1 among all those persons who began observation at time t_0 and did not possess a "history of X" at time t_0.*

Duration. *The duration of an illness is the length of the time interval that elapses from first manifestation of disease until complete resolution. For an irreversible disease process, duration is the length of the interval from first manifestation to death.*

Dynamic cohort. See Open cohort.

Etiologic fraction. See Relative excess incidence.

Exposure odds. *The number of exposed persons divided by the number of unexposed persons in a group yields the exposure odds. The exposure odds in a pool of person time are obtained by dividing the amount of exposed person-time by the amount of unexposed person-time.*

Fixed cohort. See Closed cohort.

Hazard. *The hazard is the limiting value of the probability of becoming an incident case per unit time among those at risk for becoming a case.*

Immortal person-time. *The experience of study subjects that is event-free by definition is immortal person-time.*

Inception cohort. *The persons who are under observation at the beginning of an exposure that defines cohort membership are termed an inception cohort.*

Incidence density. See Incidence rate.

Incidence proportion. See Cumulative incidence.

Incidence rate. *The incidence rate of an event in a block of person time is the number of events observed divided by the amount of person time observed.*

Incidence rate difference. *The incidence rate difference is the difference between the incidence in an exposed population and that in an unexposed population.*

Incidence rate ratio. *The incidence rate ratio is the ratio of the incidence rate in an exposed population to that in an unexposed population.*

Incident. *A case of disease is said to be "incident" at the moment at which the disease manifests signs or symptoms. Incident cases are newly occurring cases.*

Induction period. *The induction period is the time required for the effects of a specific exposure to become manifest.*

Latency. *The time interval during which a disease is latent. Also, in occupational epidemiology, the interval from first exposure to observation.*

Latent. *A disease that is present but not symptomatic is latent.*

Nested *describes a case-control study for which the source population is one whose person time (open cohort) or persons (closed cohort) has been previously identified and enumerated for research purposes.*

Open cohort. *An open cohort is a cohort whose composition changes with the passage of time.*

Period effect. *Changes in disease frequency that are specific to a calendar time are collectively termed a period effect.*

Person time *is the time during which a single individual meets all the definitions for inclusion in a study, and during which any disease event occurring in the individual would be known. The person time of observation in a population is the sum of the person times contributed by all the members of the population.*

Population attributable risk. See Population rate difference.

Population rate difference. *The difference between an incidence rate in a population comprising both exposed and unexposed persons and the rate in a population comprising unexposed persons alone is the population rate difference.*

Prevalence. *The prevalence of a characteristic in a population is the fraction of individuals in the population who possess the characteristic.*

Probability *is a characteristic of the physical processes that give rise to observable events, and represents the limiting value that would be observed for an cumulative incidence or a prevalence as larger and larger numbers of individuals came under scrutiny.*[71]

Prospective. *A prospective study is one in which the disease events under study occur after the protocol for data collection has been implemented.*

71. See also Chapter 13.

Relative excess incidence. *The relative excess incidence is the fraction of the disease burden among exposed that would not have occurred if the exposed had experienced the same incidence rate as the unexposed.*

Residual effect. *The changes in disease incidence that are attributable to an exposure are said to be the residual effect of that exposure if they are observable after the exposure has ceased.*

Retrospective. *A retrospective study is one in which the protocol is implemented after the disease events have occurred.*

Risk. See Probability.

Sampling. *The process of selecting a study population from a source population, with the goal of learning about characteristics of the source population, is known as sampling.*

Source population. *The individuals about whose experience or condition a study yields data are the source population. A source population is defined by the identity of the individuals whom it comprises and by the time periods during which each individual is considered to be a member.*

Standard. *The set of weights used for standardization is the standard. These weights sum to 1.*

Standardization. *Standardized measures are formed from a series of individual measures by taking a weighted average of the individual values.*

Study population. *The study population is the group of individuals that an investigator observes.*

Survival *is the complement of disease occurrence over a time interval. The observed survival is 1 minus the cumulative incidence of disease.*

Survivor cohort. *The persons who remain under observation at some point after the beginning of an exposure that defines cohort membership are a survivor cohort.*