

What information can statistics provide about a genetic condition?

This article was written for the National Library of Medicine (part of the National Institutes of Health) and is also posted on [MedlinePlus Genetics](#). It briefly explains common statistical terms such as incidence and prevalence for a lay audience.

Statistical data can provide general information about how common a condition is, how many people have the condition, or how likely it is that a person will develop the condition. Statistics are not personalized, but they do offer estimates based on groups of people. By taking into account a person's family history, medical history, and other factors, a [genetics professional](#) can help interpret the statistics and explain what they mean for an individual.

Some statistical terms are commonly used when describing genetic conditions and other disorders. These terms include the following:

Statistical term	Description	Examples
Incidence	The incidence of a gene variant (also called a gene mutation) or a genetic disorder is the number of people in a specified group who develop a variant or disorder during a particular time period. Incidence is often written in the form “1 in [a number]” or as a total number of a population.	About 1 in 200,000 people in the United States are diagnosed with syndrome A each year. An estimated 15,000 people worldwide were diagnosed with syndrome B last year.
Prevalence	The prevalence of a gene variant or a genetic disorder is the total number of people in a specified group at a given time who are living with the variant or disorder. This term includes both newly diagnosed and pre-existing cases in people of any age. Prevalence is often written in the	Approximately 1 in 100,000 people in the United States have syndrome A at the present time. About 100,000 children worldwide currently have syndrome B.

	form “1 in [a number]” or as a total number of people who have a condition.	
Mortality	Mortality is the number of deaths from a particular disorder occurring in a specified group per year. Mortality is usually expressed as a total number of deaths.	An estimated 12,000 people worldwide died from syndrome C in 2020.
Lifetime risk	Lifetime risk is the average risk of developing a particular disorder at some point during a lifetime. Lifetime risk is often written as a percentage or as “1 in [a number].” It is important to remember that the risk per year or per decade is much lower than the lifetime risk. In addition, other factors may increase or decrease a person's risk as compared with the average.	Approximately 1 percent of people in the United States develop disorder D during their lifetimes. The lifetime risk of developing disorder D is 1 in 100.