

Global trends in population and fertility

This update to the Global Burden of Diseases, Injuries, and Risk Factors study (GBD) includes an important new feature: for the first time, population and fertility estimates were produced by the GBD collaborators. Those estimates confirm and extend our understanding of key population trends, including those related to health.

What's unique about the GBD population and fertility estimates?

The new GBD estimates improve upon previously available estimates in three key ways:

Precision. GBD estimates improve upon the current standard for population estimation. The current standard uses five-year age estimates (for example, number of 5- to 9-year-olds in a population) that are then converted into single-year age groupings (for example, number of 6-year-olds in a population). This conversion requires mathematical steps

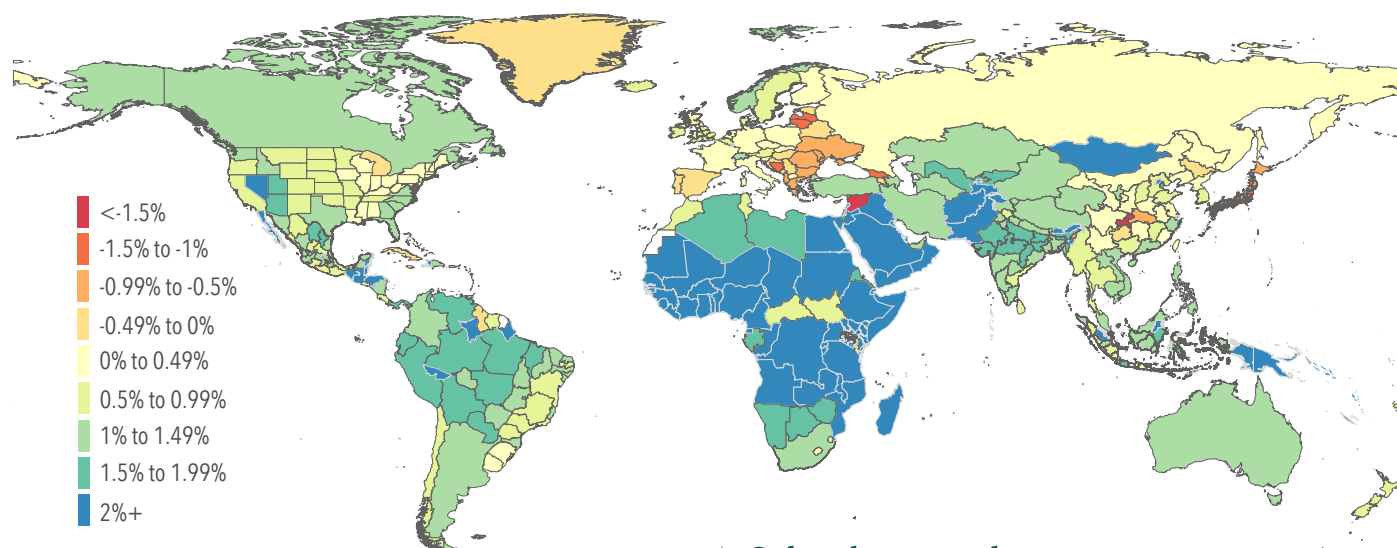
that can introduce errors and uncertainty. Instead, GBD produces single-year age estimates in every calendar year from 1950 through 2017. This approach is more accurate.

Standardization. GBD uses the same methodology to estimate population for every location and year. That ensures valid comparisons between different places and times.

Transparency. All data sources and methods used are published and publicly accessible free of charge.

Recent population growth has been highest in Africa, Asia, and Latin America

Population growth rate, 2010–2017



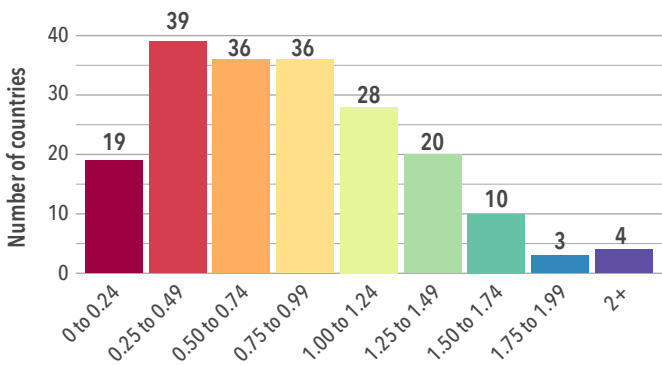
GBD 2017 Population and Fertility Collaborators. Population and fertility by age and sex for 195 countries, 1950–2017: a systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*. 8 Nov 2018: 392.

Other key trends

- » The global population increased from 2.6 billion in 1950 to 7.6 billion in 2017.
- » Despite this growth, roughly half of 195 countries recorded total fertility rates below the replacement rate of approximately 2.05 in 2017.

Fertility in females under 25 varies widely by country

Fertility rates for females under 25, by number of countries, 2017



- » Among countries, total fertility under age 25 ranged from a low of 0.08 births to a high of 2.4 births.
- » Since 1990, countries have achieved nearly universal declines in fertility under age 25, which is a key indicator for Sustainable Development Goal 3.
- » Still, in 50 countries, total fertility was higher in females younger than 25 than in those 30 or older.

The relationship between total fertility rate and population growth in 2017

Countries may continue growing in population even if their total fertility rates are below the replacement rate of 2.05 births (marked in the figure below with a dashed line). This is due to population momentum, in which past growth of birth cohorts leads to more females of childbearing age, which leads to birth rates that, for a time, remain high relative to deaths in the population.

Countries plotted by total fertility rate and population growth rate, 2017

