

## Data Uses & Limitations

The life expectancy estimates provided by USALEEP offer a snapshot of population health at a very local level. This is the first set of life expectancy estimates that are available nationwide. Knowing how (and how not) to use these estimates will help to make them more effective tools in improving the health of neighborhood residents across the entire U.S.

### Data Uses

County and ZIP code level data help us begin to understand the picture of how people live in specific areas, but census tract data help us drill down even further. Census tracts on average include 4,000 people who typically have similar characteristics such as social and economic status. This is a much smaller, more targeted grouping than we can get from county and ZIP code data-- and more helpful for understanding health at the local level.

The more local the data are, the better we can understand the differences among population groups. And once we understand those differences, we can act. Local solutions require local data.

USALEEP data can help pinpoint disparities in life expectancy at birth and start a conversation that leads to action. Here are some ideas:

- **Community members** can use the data to *guide conversations* about what is causing life expectancy disparities. Once they understand the root issues, they can talk with each other and their elected officials about what changes they want to see where they live—maybe better public transportation, access to healthy food, affordable housing, or education and job training opportunities for the neighborhood.
- **Policymakers** can use the data to *better understand disparities* and make important decisions about public transportation and grocery stores, requirements for physical activity and healthy foods in schools, community safety, access to health care, and much more.
- **Health departments and nonprofit hospitals** can use the data to better inform their community health assessments, which will help them direct limited dollars to areas most in need.

- **Community development financial institutions** can use these data to help decide which neighborhoods most need their investment dollars to fund health clinics, schools, preschools, community centers, and other projects that can help improve health.
- **Business owners** can offer incentives for their employees to be healthy and look for ways to improve health in the communities where they are based. Business leaders can also partner with policymakers to establish job training programs and ensure workers are paid a wage that supports their families.
- **Schools and teachers** can help ensure that all students get a good education so that they have a better chance of growing up healthy.
- **Parents** can continue to make healthy choices for their families.
- **Community planners** can look for ways to ensure clean air and water or avoid environmental hazards or create public places for everyone to play and exercise.

USALEEP data may also be complemented by the following data projects:

- The **500 Cities Project** provides city- and census tract-level small area estimates for chronic disease risk factors, health outcomes, and clinical preventive service use for the largest 500 cities in the United States. These small area estimates will allow cities and local health departments to better understand the burden and geographic distribution of health-related variables in their jurisdictions, and assist them in planning public health interventions: <https://www.cdc.gov/500cities/>
- The annual **County Health Rankings** measures county-level health factors (obesity, smoking, food access, income, housing etc.) for all counties in the United States. The site also includes a **Roadmaps to Health Action Center** section that provides guidance and tools to help communities take action: <http://www.countyhealthrankings.org/>
- The **City Health Dashboard** is a one-stop online resource featuring data for 36 measures of health and well-being at the city level for the 500 largest cities in the United States. the City Health Dashboard allows users to see correlations between community-level factors that shape health in cities, such as housing affordability, unemployment, children in poverty, and access to nutritious foods: <https://www.cityhealthdashboard.com/>

- **America's Health Rankings**, a project of the American Public Health Association, the United Health Foundation and Partnership for Prevention, is a source for trends in nationwide public health and state-by-state rankings using 34 measures of behaviors, community and environmental factors and policies, and clinical care data: <https://www.americashealthrankings.org/>
- **VCU Life Expectancy Maps** illustrate how opportunities to lead a long and healthy life vary dramatically using ZIP code or census tract data. In some cases, life expectancy differs by as many as 20 years in neighborhoods only a few miles apart. At this time, 21 maps are available—some at the state level, some at the city level: <https://societyhealth.vcu.edu/work/the-projects/mapping-life-expectancy.html>

## Data Limitations

### From Data to Action

USALEEP estimates help us zero in on census tracts so that we can better understand the full picture of what is happening health-wise in these areas—but they do not identify the most critical community factors themselves. As you compare census tracts, it is important to remember that these data are meant to help drive conversation and action *locally*—specific to each census tract.

It is also important to be aware that life expectancy estimates are an average age at death calculated for the entire population and do not predict how long any one person will live. An assumption required to calculate life expectancy at birth estimates is that the death rates of the population will not change over time, even though we cannot forecast what the future death rates will actually be.

Finally, while these estimates reflect the longevity and general health of persons living in a census tract, this does not mean that a specific geographic location inherently has a better or worse physical environment—or is an unhealthy place to live. For example, neighboring census tracts may have exactly the same air and water quality, but differences in the two populations' sociodemographic characteristics such as education and income may result in better access to health care and other factors that result in increased life expectancy in one tract but not the other.

### Challenges

One of the challenges encountered in compiling life expectancy estimates for every census tract in the nation is that some census tracts are simply too small—population wise—to estimate this information. When the numbers are too small, estimates may not

be as accurate because the experience of just a few people has an uneven influence that makes life expectancy estimates unreliable.

If no life expectancy estimate was included for your census tract, that was because the number of deaths and/or the estimated size of the population in your census tract was too small to calculate an accurate life table and estimate the life expectancy with a reasonable degree of confidence. The life expectancy estimate from a neighboring census tract may be useful as a substitute, especially if the two census tracts are similar in terms of the ages, race/ethnicity, and other characteristics (such as education and income) of the residents. Another option is to use county level life expectancy estimates, although these estimates will mask disparities among census tracts within the county.

We encourage you to visit the website of or contact the vital records/health statistics office of your state or local health department to learn more about what data are available and how other health status measures may be useful.

### **Updates**

The estimates will not be updated annually, but we hope to provide an update in the next 5-7 years. That timeframe will be long enough to have a meaningful analysis of trends and change. Change may be slow and it may occur in pockets. The intent is to provide communities with this powerful tool for beginning their journey toward better health for their residents.

## **For More Information**

For more information on USALEEP data for your census tract, data uses and methodology, please visit: [www.naphsis.org/usaleep](http://www.naphsis.org/usaleep)