FLHealthCHARTS

Age-Adjusted Rate

As it appears on CHARTS

What is an Age-Adjusted Rate?

Age-adjusted rates are rates that would have existed if the population of interest had the same age distribution as a standardized population.

- On CHARTS, age-adjusted rates are often presented first.

- **AADR** refers to an age-adjusted death rate.

Why use Age-Adjusted Rates?

Many health outcomes vary by age. An age-adjusted rate takes age differences into consideration.

Because death rates for most diseases generally increase with age, a population with a relatively young age distribution will tend to have fewer deaths from a given disease than a similarly sized population with an older age distribution.

How is it calculated?

- An age-adjusted rate is a *weighted* average where the crude rate for each age group is multiplied by its representative proportion in the standard population before being summed together.

- CHARTS uses the 2000 United States standard population age distribution in its calculations of age-adjusted rate. Note that the 2000 US standard population provides counts of individual ages which can be combined into various age groupings and their proportions recalculated.

In 2022, the crude death rate from heart disease was similar in County A and County B (224.7 per 100,000 vs. 224.2 per 100,000, respectively). If County A's age-adjusted death rate (AADR) was 131.8 per 100,000, which county had the higher AADR? Use the values provided in the table for your calculation.

Step 1: Calculate the age-adjusted rate in County B for each age group

<18: $\left(\frac{0 \times 100,000}{14,697}\right) \times 0.258 = 0.0$

18-64: $\left(\frac{30 \times 100,000}{43,164}\right) \times 0.616 = 42.8$

65+: $\left(\frac{133 \times 100,000}{14,667}\right) \times 0.126 = 114.3$

Step 2: Sum the age-adjusted rates

$0.0 + 42.8 + 114.3 = 157.1$

County B's age-adjusted death rate from heart disease was 157.1 per 100,000 population in 2022.

Deaths from Heart Disease in County B, 2022

Age Group	Deaths	Population	Proportion in 2000 US Standard Population[1]
< 18	0	14,697	0.258
18-64	30	43,164	0.616
65+	133	14,667	0.126

Despite having similar crude death rates, County B's age-adjusted death rate from heart disease would be greater than County A's if their populations had the same age distribution (157.1 per 100,000 vs. 131.8 per 100,000).