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Comp 3800 project 1

Health conditions for children under age 18 by selected characteristics data analysis

This data was loaded from data.gov whose information came from the CDC that describes different health conditions among children under 18 in different characteristics.

<https://catalog.data.gov/dataset/health-conditions-among-children-under-age-18-by-selected-characteristics-united-states-53b56>

<https://www.cdc.gov/nchs/hus/data-finder.htm?year=2019&table=Table%20012>

My main question for this data set would be what the trends and disparities in health conditions among U.S children are. I will find this out by asking:

* How have the rates of common health conditions changed over time
* Do health conditions among children differ significantly across demographics
* Which health conditions show the highest variability and uncertainty, reflected by standard error.

Summary:

# Prevalence of conditions such as asthma, ADHD, and allergies has shifted over time, with ADHD and asthma generally increasing before stabilizing. Demographic differences are clear: prevalence is higher in older children (10–17 years) and in males compared to females; additional disparities appear by race/ethnicity, poverty level, and insurance status. Uncertainty in estimates varies by condition. Allergies (hay fever, skin allergy) and ADHD have higher standard errors, suggesting less precise estimates compared to conditions like behavioral difficulties.

Insights & Next Steps

* Focus future analysis on specific conditions and demographic groups with the most notable disparities (e.g., asthma among low-income children).
* Investigate sources of variability in conditions with high standard errors, possibly tied to sample size or survey methodology.
* Break down prevalence by combined factors (e.g., race and poverty, or sex and age).
* Explore why conditions like hay fever have large standard errors (sampling issues, smaller subgroups, survey bias).