API and Visualization Discussion

Introduction

The information of our chosen json dataset allows us to explore disease metrics in the state of California. Our dataset includes county-specific and state-wide counts of various diseases, and we can explore these counts by year and sex, as well as by normalized (by population) ratios or total count.

API Methods

Our first method, get_effected_counties, returns a given number of counties most affected by a given disease. We have parameterized both the disease name and number of counties to analyze the data by *disease*. Our second method, get_disease_trend, returns yearly counts of a given disease, for a given number of years. We parameterized disease name and number of years to analyze *diseases over time*. Our third method, get_county_disease, returns a given county's most prevalent disease(s). We parameterized county name and the number of diseases to analyze the data by *county*.

Visualization

We chose to visualize our second method to look at the trend of Salmonella in California over 10 years. As seen below, we see a fairly upward trend in the total number of cases, with a peak in 2018. Some **outside research** suggests this may have a relationship with rising temperatures affecting global food supply chains.