Japan Influenza Cases and Weather Visualization

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Concept

By collecting and organizing climate data—such as temperature, rainfall, snowfall, and humidity—specifically for the areas of Tokyo, Osaka, and Hokkaido in Japan from 2019 to 2023, along with the number of flu cases in these regions during the same period. This webpage will make it easier to see how weather affects the spread of the flu.

Dataset

- Weather data for each day:
  - 国土交通省気象庁 https://www.data.jma.go.jp/gmd/risk/obsdl/
  - Year: 2019~2023
  - Type: highest temperature, average temperature, lowest temperature, rainfall, snowfall, average humidity
  - City: Tokyo, Osaka, Hokkaido

Dataset

- Influenza cases data for each week:
  - Year: 2019~2023
  - City: Tokyo, Osaka, Hokkaido
  - Age: <10, 10~19, 20~29, 30~39, 40~49, 50~59, 60~69, 70~79, 80+, all

  - Tokyo:
    - <5 months old, <1year old, 2, 3, 4, 5, 6, 7, 8, 9, 10~14, 15~19, 20~29, 30~39, 40~49, 50~59, 60~69, 70~79, 80+, all
  - Osaka:
    - < 6 months old, < 1year old, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10~14, 15~19, 20+, all
  - Hokkaido:
    - <6 months old, <1 year old, 1, 2, 3, 4, 5, 6 7, 8, 9, 10~14, 15~19, 20~29, 30~39, 40~49, 50~59, 60~69, 70~79, 80+, all

Observation

- During the COVID-19 pandemic, there were fewer influenza cases.
- There are more influenza cases in winter.
- The peak of the epidemic was in mid-January, which may have been caused by reunions and travel during the New Year period.
- Although Hokkaido became colder earlier, the timing of the increase in epidemics was consistent with that of the other two places.
- Among all weather data, temperature is most closely related to the number of cases.