

Trends and Patterns in Cancer Incidence Rates in Maine from 1999 to 2020: An Epidemiological Study



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(EDA)

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Exploratory Data Analysis

Overall Summary of Age-Adjusted Incidence Rate:

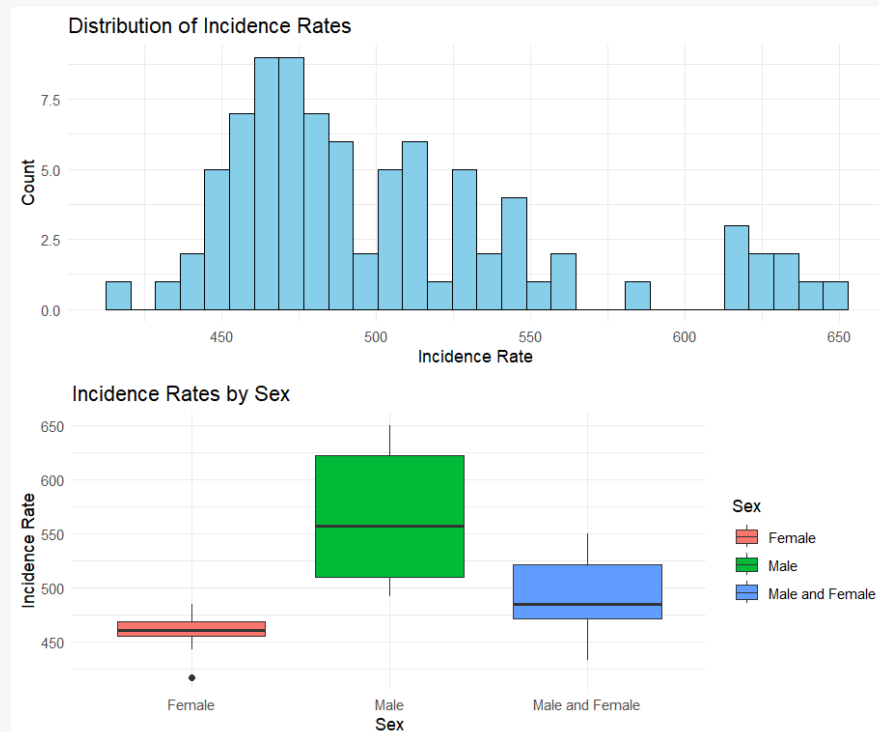
Min	1 st Qu.	Median	Mean	3 rd Qu.	Max.
417.6	464.6	485.3	503.6	529.4	649.9

Frequency of Counties:

All Counties	Others
69	16

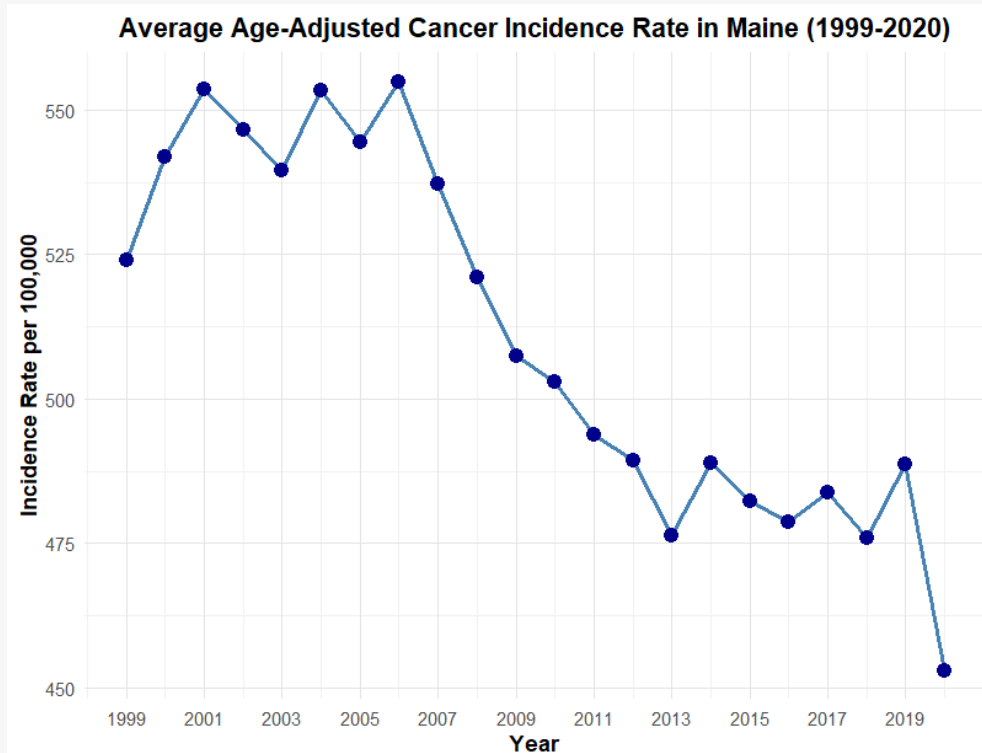
Frequency of Sex categories:

Female	Male	Female and Male
23	23	39



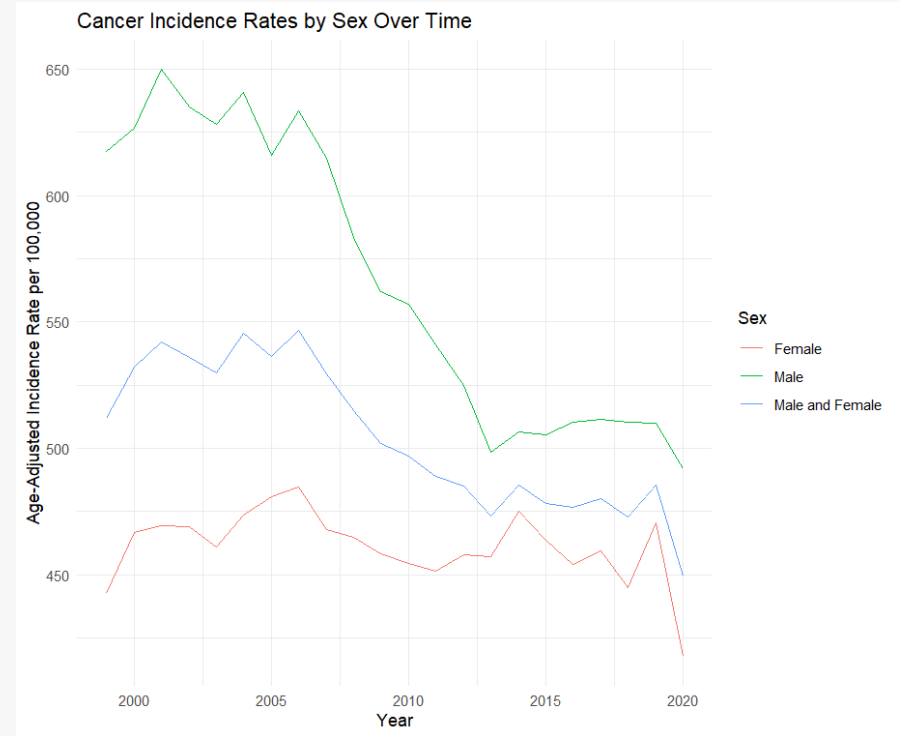
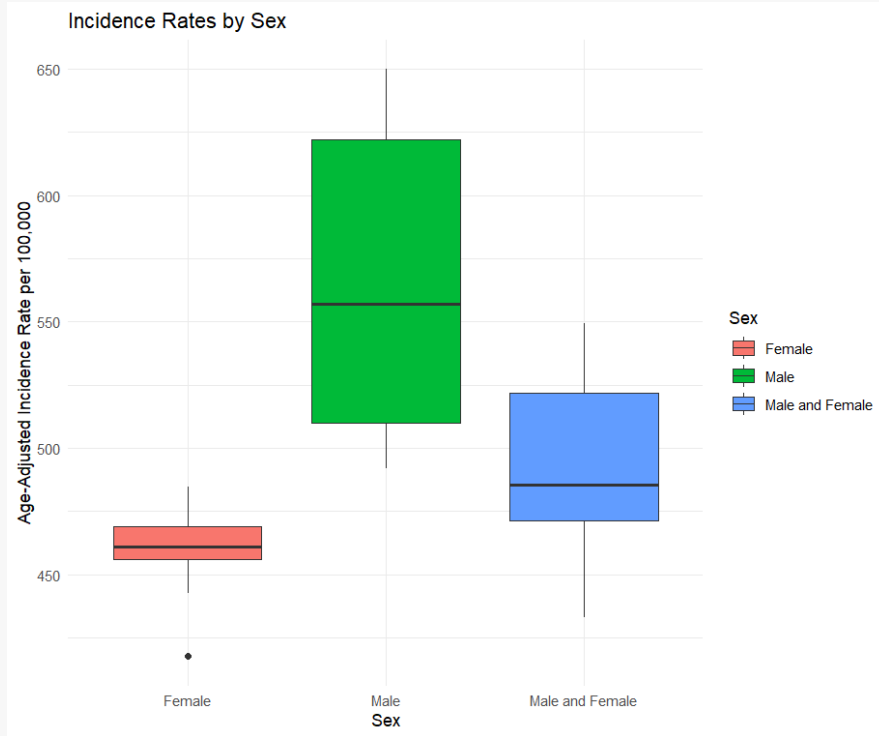
Trend Analysis Over Time

- General upward trend observed in the early 2000s with a peak around 2006
- Gradual decline until around 2013, then a slight increase again towards 2020
- The implication of changes in incidence rates could be a result of geographic variations and demographic differences



Comparative Analysis

Age-adjusted incidence rate by Sex



Summary Statistics for Confidence Intervals

Mean CI Range: **31.2**

Median CI Range: **29.5**

Min CI Range: **9**

Max CI Range: **85.5**

- The average range of the confidence intervals is approximately 31.2, with a median of 29.5. This indicates that on average, the confidence intervals are relatively narrow, suggesting a reasonable level of precision in the incidence rate estimates.
- The minimum range of 9 indicates that some estimates are very precise, while the maximum range of 85.5 suggests that there are instances where the estimates are less reliable. This variability can be due to lower case counts in certain years or cancer types.

Citation

U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on 2022 submission data (1999–2020): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; <https://www.cdc.gov/cancer/dataviz>, released in November 2023.

**Thank You
for
Listening**