

Rising Tide: The Alarming Upward Trajectory of Heart Failure Mortality in North Dakota

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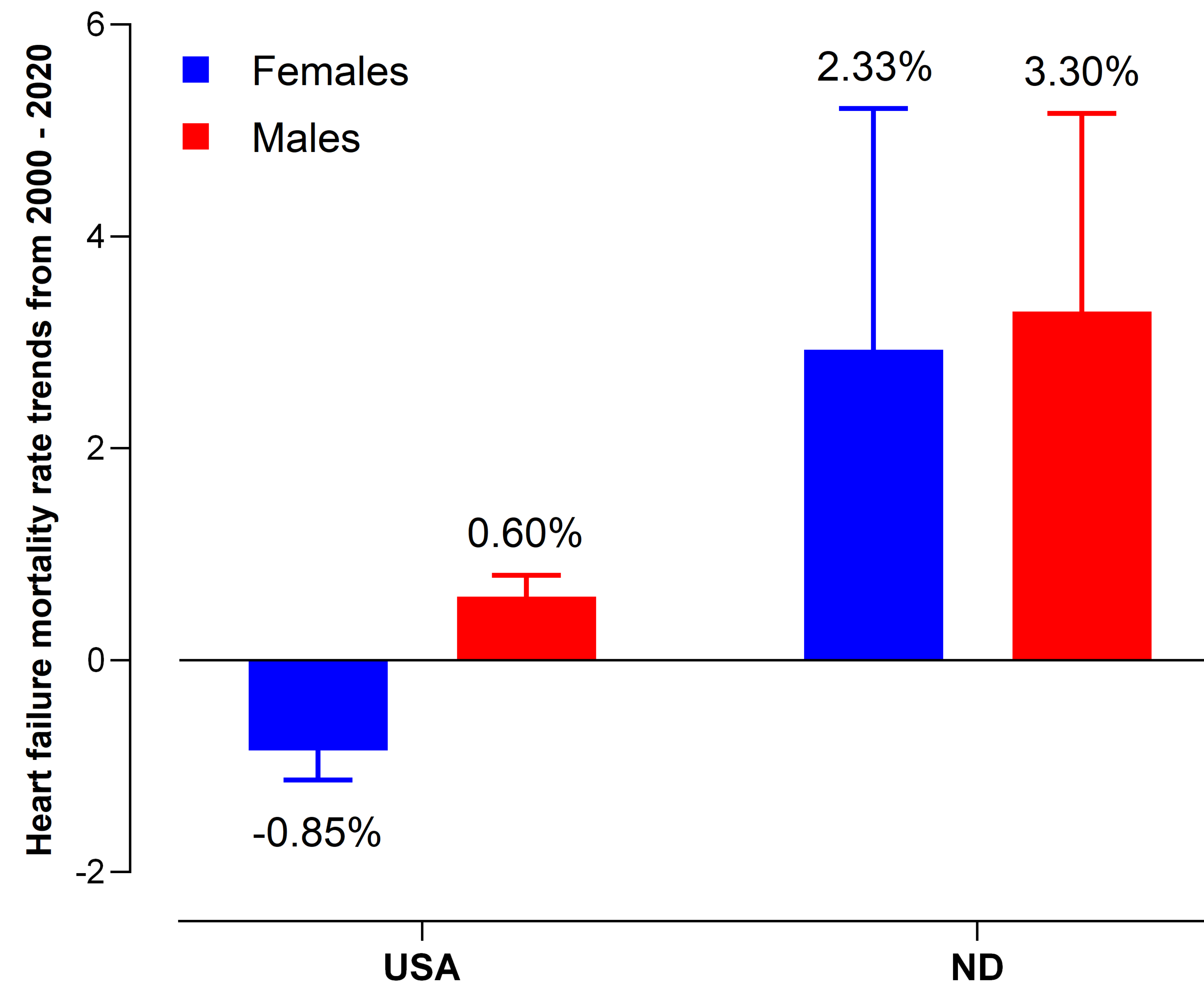
Background

Heart failure remains a leading cause of mortality and morbidity in the United States. Reducing heart failure deaths and elucidating sex disparities in outcomes are objectives within the **Healthy People 2030** recommendations

Aim: This study analyzed sex differences in long-term heart failure mortality rates in North Dakota from 2000-2020.

Methods

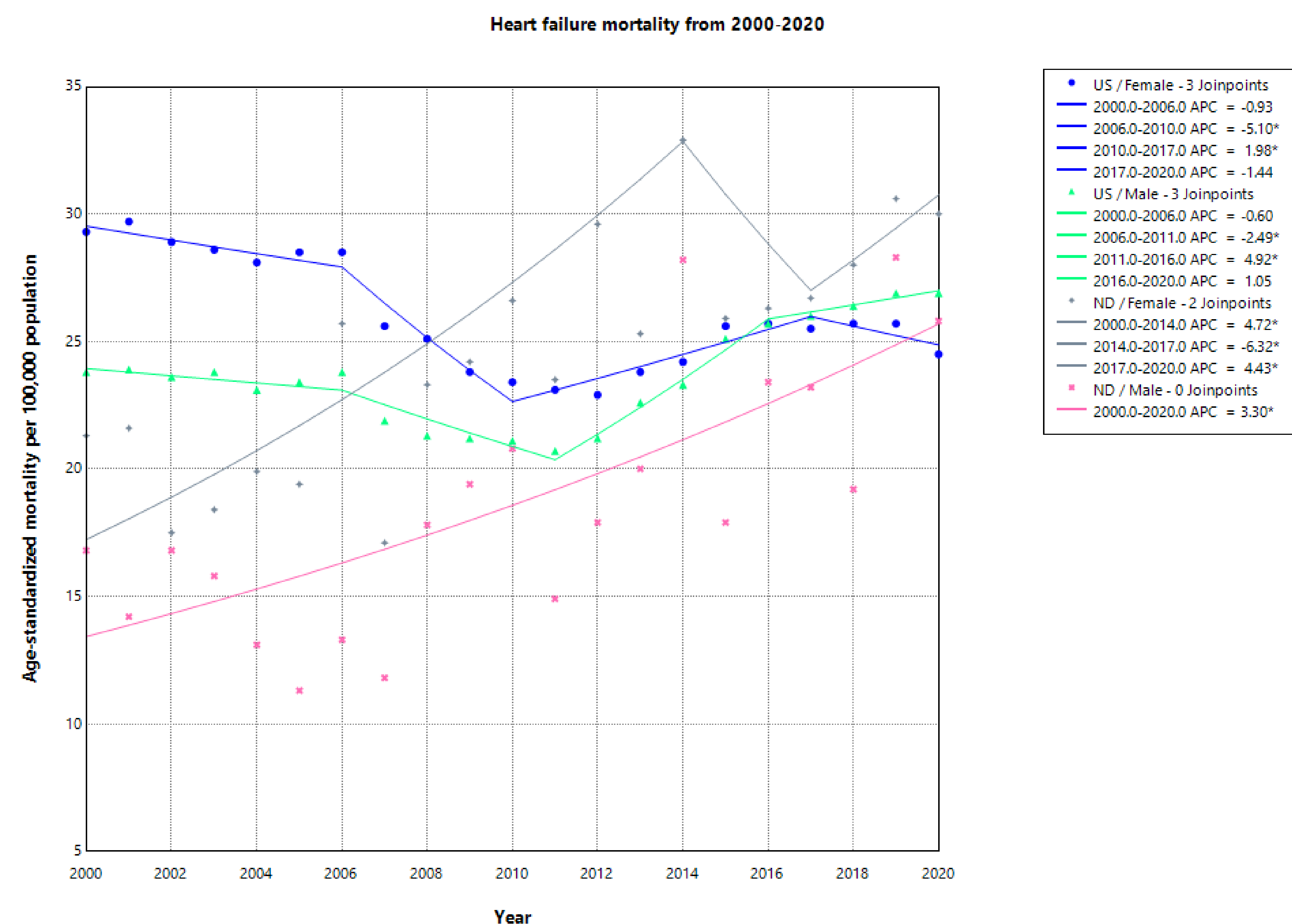
- This study utilized data from the ongoing Healthy People 2030 initiative, drawing from national census using
- National Vital Statistics System and nationally representative survey data like the National Health Interview Survey.
- To analyze heart failure mortality trends, we employed cause-of-death modeling and statistical analysis to compare crude and age-adjusted heart failure mortality rates (ASR) between men and women and examine changes in heart failure mortality over time in North Dakota to US national estimates.



- Joinpoint regression analysis was used to evaluate trends in the age-standardized heart failure mortality rates, reporting annual percentage changes (APC) and average APC (AAPC) with accompanying 95% confidence intervals (CI).

Results

- From 2000 to 2020, the ASMR of heart failure significantly increased by an average of 2.0% (95% CI: 1.1% to 3.5%) per year in North Dakota compared to national estimates (-0.2%, 95% CI: -0.5% to -0.0%).
- In particular, North Dakota showed a significant increase in ASR of heart failure mortality only in women by APC of 4.4% (95% CI: 3.2% to 6.0%) from 2017 to 2020.



Conclusion

- In contrast to national downward trends, North Dakota showed concerning increases in age-standardized heart failure mortality from 2000-2020, affecting both sexes and deviating from Healthy People 2030 objectives.