Trends and Disparities in the Mortality of Polycythemia Vera Patients in the United States between 1999-2020

Dhruv Gandhi[1], Wajdan Ahmad[2], Indraneel Deshmukh[3]
[1]St Francis Medical Center, Monroe, LA, USA; [2]Al Tibri Medical College, Karachi, Sindh, Pakistan; [3]University of Texas MD Anderson Cancer Centre, Houston, TX, USA

AIM OF THE STUDY:

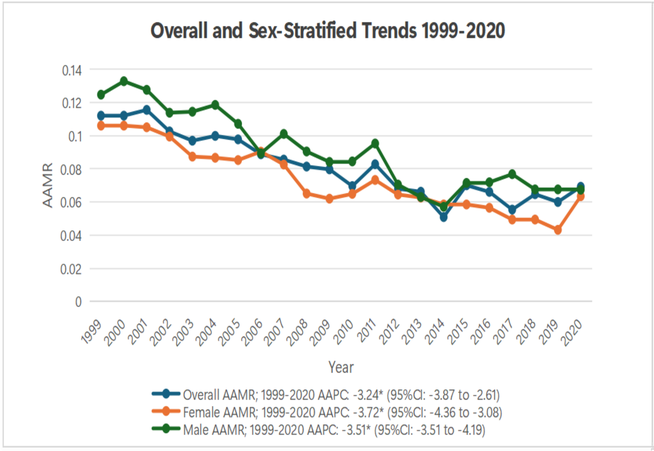
To determine temporal trends and demographic disparities in polycythemia vera (PV) mortality in the USA (1999-2020).

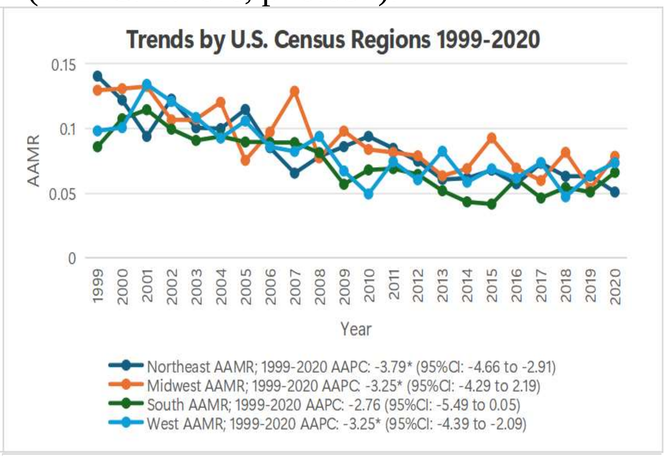
METHODOLOGY:



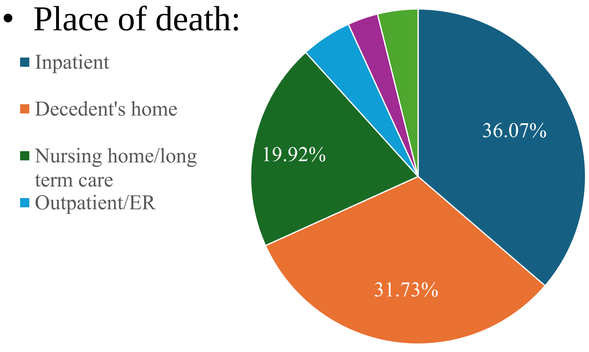
RESULTS:

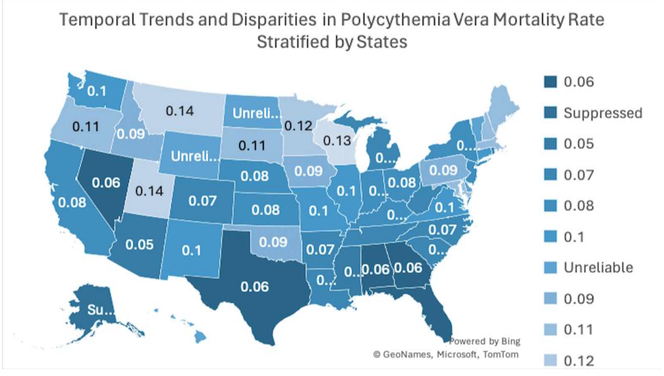
- Total mortality from PV (1999-2020): 6,124.
- Males had a higher AAMR (0.086) as compared to females (0.078) but showed a lesser decline in mortality (AAPC:-3.51%; p<0.0001) as compared to females (AAPC:-3.72%; p<0.0001).
- Geographically, AAMRs were highest in Midwest (0.092) followed by Northeast (0.084). All census regions showed declining AAMRs from 1999-2020, with the greatest decline seen in Northeast (AAPC:-3.79%; p<0.0001) and the least decline seen in South (AAPC:-2.76%; p=0.054).



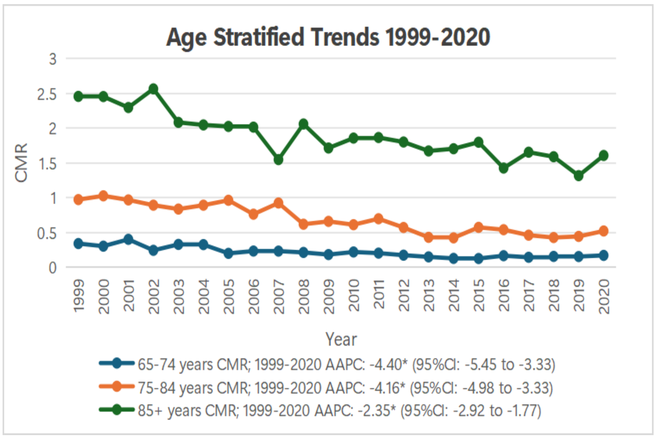


- Place of death:





- Between 1999-2020, White patients of PV had an overall AAMR of 0.084 and showed a declining trend from 0.114 to 0.071 (AAPC:-2.66%, p<0.0001).
- All 10-year age groups showed an overall decrease in CDR from 1999-2020 with the greatest decline seen in 65-74 years (AAPC:-5.45%; p<0.0001).
- Non-metropolitan areas had slightly higher AAMRs than metropolitan areas (0.086 vs 0.083), with both areas showing decreasing AAMRs from 1999-2020 (metropolitan AAPC:-3.45%; p<0.0001 and non-metropolitan AAPC:-2.34%; p=0.0001).



CONCLUSION:

- This study demonstrates declining PV mortality (1999-2020) but reveals persistent disparities, with higher mortality rates among males, residents of the Midwest and non-metropolitan areas, and in certain states.

REFERENCES:

1. Centers for Disease Control and Prevention. CDC WONDER: Wide-ranging Online Data for Epidemiologic Research. Available from: https://wonder.cdc.gov/
2. Centers for Disease Control and Prevention. Underlying Cause of Death 1999–2020. Available from: https://wonder.cdc.gov/wonder/help/ucd.html
3. Joinpoint Trend Analysis Software. Joinpoint Regression Program, Version 4.9.0.0. Surveillance Research Program, National Cancer Institute. Accessed July 7, 2025. Available from: https://surveillance.cancer.gov/joinpoint/