Disparities in Acute Leukemia-Related Mortality Among Reproductive-Aged Women in the United States: A CDC WONDER Database Analysis

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CONTEXT

Despite the significant progress in clinical outcomes for patients with hematologic cancers, there is still a considerable gap in understanding mortality rates among reproductive-aged women with acute leukemias in the United States.

OBJECTIVE

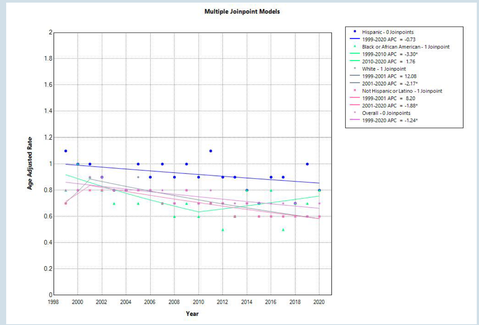
This study aims to analyze mortality trends and disparities among reproductive-aged women to inform future healthcare strategies and enhance evidence-based interventions for this demographic.

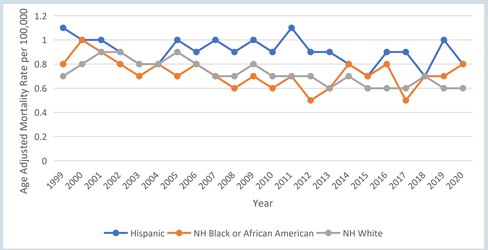
DESIGN

We conducted a retrospective analysis using the Centers for Disease Control and Prevention Wide-Ranging Online Data for Epidemiologic Research (CDC WONDER) database, extracting ICD-10 codes C91.0 and C92.0 to identify deaths due to acute myeloid leukemia (AML) and acute lymphoblastic leukemia (ALL) in women aged 15 to 44 from 1999 to 2020. We examined disparities by age, race, region, rural/urban status, and place of death. Results were presented as age-adjusted mortality rates (AAMR) with 95% confidence intervals (CI). Joinpoint regression was used to assess trend changes and annual percentage change (APC).

RESULTS

: Between 1999 and 2020, a total of 10,249 women died from acute leukemias in the US, with an AAMR of 0.7 per 100,000 (95% CI: 0.7-0.8). AAMR decreased from 0.8 in 1999 to 0.7 in 2020 (APC -1.24; 95% CI -1.71 to -0.8). Mortality rates showed disparities: Hispanics had higher rates than non-Hispanics (0.9 vs. 0.7), and Asians had lower rates than other races (0.6 vs. 0.7). The West had the highest regional rate (0.8). State variations were greatest in West Virginia (1.0) and Hawaii (0.9), and lowest in Delaware and New Jersey (0.6). Rural areas had higher AAMR than urban areas (0.8 vs. 0.7). Most deaths occurred in inpatient settings (77.9%), with the 35-44 age group accounting for the majority (45.3%).





CONCLUSION

The overall mortality due to acute leukemias decreased yet disparities persist. Significant risk factors include living in the West, White ethnicity, and ages 35-44. Focused action is needed to mitigate deaths. Expanding access to healthcare in rural areas and implementing targeted prevention programs are likely crucial for reducing mortality rates.

KEYWORDS

acute myeloid leukemia, AML, acute lymphoblastic leukemia, ALL, CDC WONDER.