Health-Related Social Needs Increase Mortality Risk for Cancer Survivors Through Accelerating Biological Aging, Report Shows

CHICAGO, October 11, 2025 — In a new, national study led by the American Cancer Society (ACS), scientists found that both individual health-related social needs (HRSNs), such as food insecurity, and the number of HRSNs were associated with higher all-cause mortality for cancer survivors, and accelerated biological aging may contribute to these associations. The findings will be presented at the annual American Society of Clinical Oncology (ASCO) Quality Care Symposium in Chicago, October 10-11, 2025.

Researchers, led by Dr. Xuesong Han at the American Cancer Society, identified 715 survivors aged 20-84 years from the 1999-2010 National Health and Nutrition Examination Survey and linked them to death certificate records through December 31, 2022. HRSNs, including poverty, lack of home ownership, food insecurity, unemployment, lack of health insurance, and coverage instability, were categorized into a summary score indicating the number of HRSNs each individual experienced. Biological aging was measured, and associations were examined between HRSNs and all-cause and cancer-specific mortality risks, adjusting for demographic and clinical factors.

Study results showed that cancer survivors experienced 0.14 years of accelerated biological aging, on average. Survivors more likely to experience accelerated biological aging were: male, non-Hispanic Black, with low educational attainment, with HRSNs, current smokers, obese, with three or more comorbid conditions, or fair or poor health. In over 2 decades of follow-up, there were 315 deaths, including 103 from cancer. Among individual HRSNs, poverty and food insecurity were associated with a higher risk of any death, and lack of home ownership was associated with a higher risk of cancer death; these associations were reduced by more than 25% by adding accelerated biological aging in the multivariable models. Having three or more HRSNs was associated with increased risk of death, 27% of which was reduced by accelerated biological aging.

The authors note their findings provide further evidence that investing in public assistance programs may yield many benefits for residents across the healthcare continuum. They also emphasize that proactively addressing HRSNs may mitigate accelerated aging and reduce mortality risk for cancer survivors.

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About the American Cancer Society
The American Cancer Society is a leading cancer-fighting organization with a vision to end cancer as we know it, for everyone. For more than 110 years, we have been improving the lives of people with cancer and their families as the only organization combating cancer through advocacy, research, and patient support. We are committed to ensuring everyone has an opportunity to prevent, detect, treat, and survive cancer. To learn more, visit cancer.org or call our 24/7 helpline at 1-800-227-2345. Connect with us on Facebook, X, and Instagram.

For further information: FOR MORE INFORMATION, CONTACT: American Cancer Society, Anne.Doerr@cancer.org

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