

A population-based survey of cancer survivors to evaluate State Cancer Plan health indicators: Results of a collaboration between Utah Cancer Registry and Utah Comprehensive Cancer Control Program

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Background and Purpose

Cancer and its treatment may have long-term effects on health behaviors such as physical activity, on health-related quality of life including pain and functional status, and on access to health services. Supporting cancer survivors and their caregivers is a priority for the Centers for Disease Control and Prevention’s National Comprehensive Cancer Control Program.

The Utah Comprehensive Cancer Control Program developed the 2016 – 2020 Utah Comprehensive Cancer Prevention and Control Plan to guide planning, implementing, and evaluating cancer control efforts. The plan identified nine health indicators, based on Healthy People 2020 objectives, to monitor among cancer survivors. To assess experiences of recent cancer survivors related to these indicators, the Utah Cancer Control Program collaborated with the Utah Cancer Registry to implement a population-based survey of cancer survivors.

We assessed estimates and trends over time for the nine health indicators for survivors. We also assessed disparities in these indicators across demographic subgroups.

Data and Methods

Study population & sampling

- Living cancer survivor, as identified via Utah Cancer Registry
- Utah resident, diagnosed 2012-2019 at age 18 or older
- Any reportable, invasive cancer diagnosis (benign brain/CNS included 2018 only)
- Stratified random sample, oversampling Hispanic survivors and those residing in areas below the median health insurance coverage proportion

Survey

- Questionnaire constructed using existing items from Behavioral Risk Factors Surveillance System or other established surveys
- English and Spanish language; web and paper versions used
- Contacts attempted via postal mail and phone to obtain participation
- \$2.00 cash pre-incentive provided

Analysis

- Percentages and 95% confidence intervals were calculated
- Assessed for change over time using a test for trend across survey years 2018-2021 from logistic regression models
- All analyses were weighted to account for survey sample design and nonresponse, and age-adjusted to the adult Utah cancer survivor population

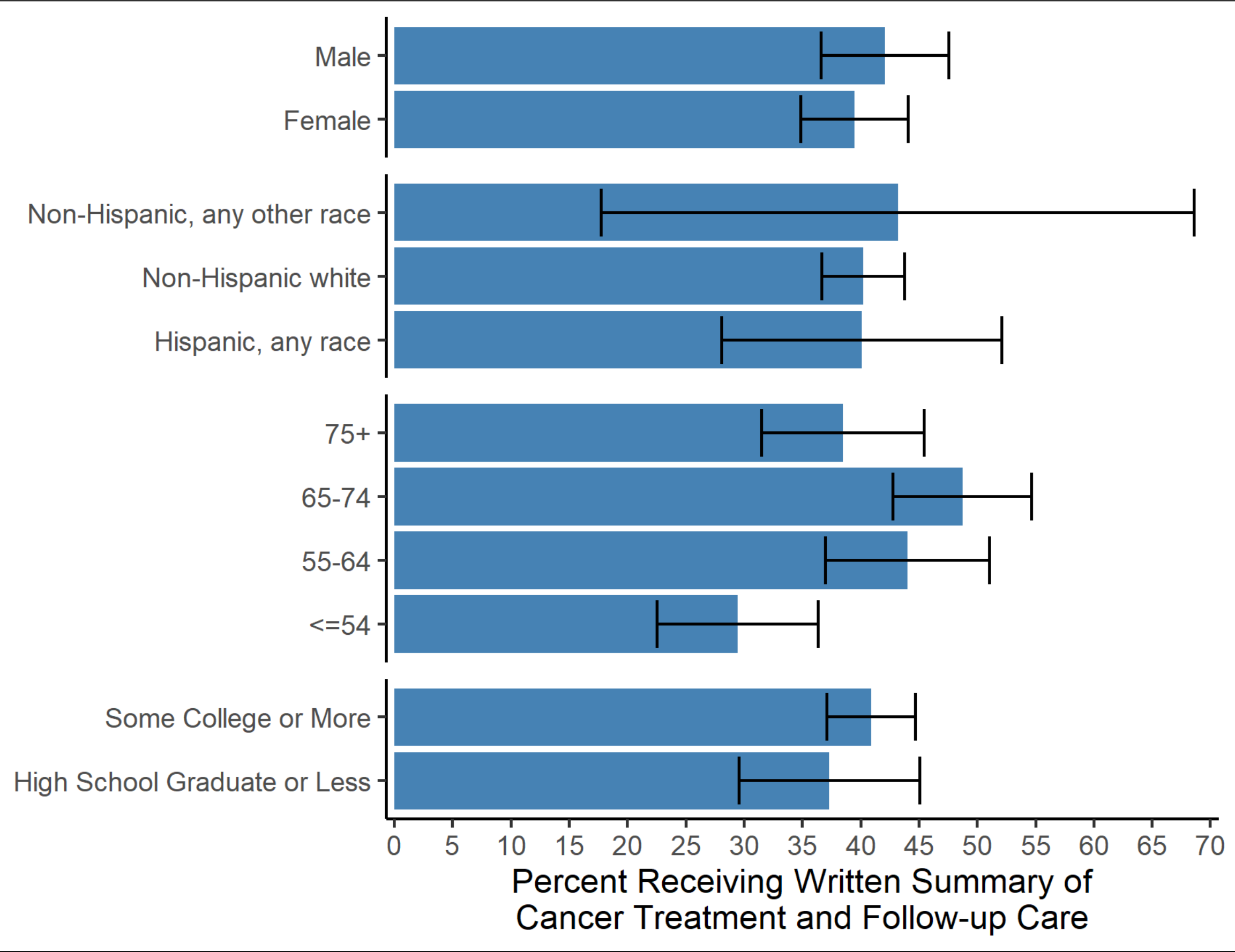
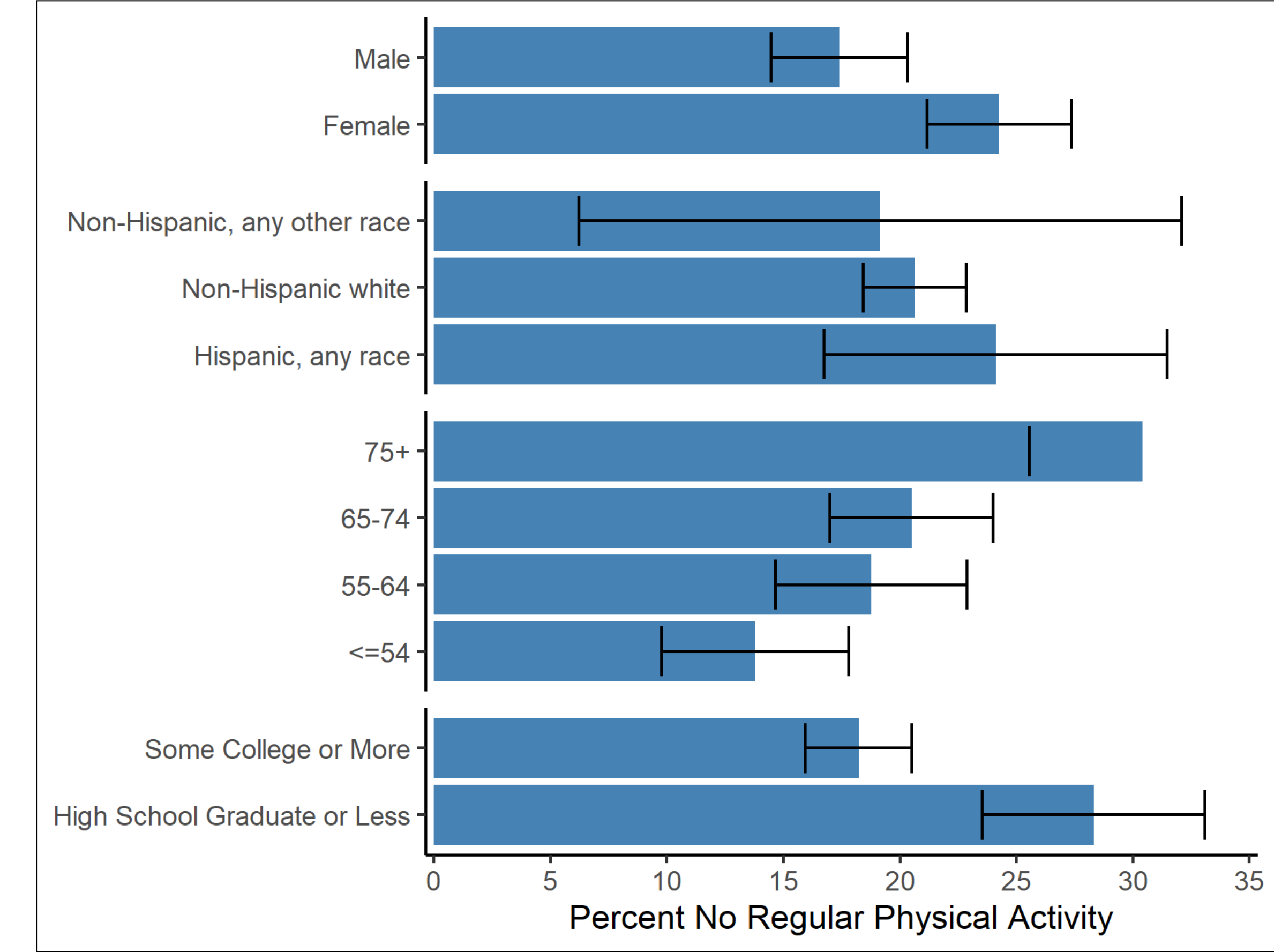
Results

Estimates for Cancer Survivor Health indicators, 2018-2021

Health Indicator	%	95% CI	p-trend
Current cigarette smoker	5.0	3.8, 6.1	0.30
No regular physical activity	20.6	18.5, 22.7	0.45
Pain under control	93.5	92.2, 94.7	0.16
Good, very good, or excellent health	85.7	83.8, 87.5	0.71
Dissatisfied with life	7.1	5.7, 8.5	0.86
Has limitations due to physical, mental, or emotional problems	46.5	43.8, 49.1	0.46
Cancer treatment was covered in part or full by health insurance	97.7	96.9, 98.6	0.44
Participated in a clinical trial as part of cancer treatment	10.4	8.6, 12.1	0.34
Received written summary of cancer treatment and follow-up care	40.4	37.0, 43.9	0.025

Disparities

- Smoking more prevalent in younger ages, those with lower education
- Females, Ages 75+, and survivors with less education less physically active
- Hispanic survivors report lower overall health than non-Hispanic white survivors
- Younger survivors less likely to receive a survivorship care plan
- Survivors with less education less likely to have had health insurance to cover cancer treatment



Conclusions

- Central cancer registries are a valuable avenue for obtaining representative samples of cancer survivors for assessing cancer survivors’ quality of life and evaluating future health interventions
- The Utah Cancer Control Program’s efforts to increase access to survivorship care plans were successful, but disparities in key health indicators disproportionately affect survivors with lower education levels

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