PURPOSE

Colorectal cancer (CRC) is the third leading cause of cancer mortality in the United States and South Carolina (SC) and its age-adjusted incidence and mortality are highest among Black population. [1]

With a high proportion of Black (27.9%) and rural residents (33.7%), it is important to describe the burden of CRC among these underserved populations in SC [2] as reducing the incidence of CRC remains one of the Healthy people 2020’s objective priorities.

METHODS

CRC incidence, staging and mortality data were obtained from the SC Central Cancer Registry.

Urban-rural status was determined Urban Influence Codes (1-2=urban; 3-12=rural).

Mortality-to-incidence ratios (MIRs) for each SC county (2012-2016 period) were calculated and mapped using ArcGIS Version 10.5.1.

Chi-square tests were calculated to examine differences in CRC stage by urban-rural status and race.

Annual percent change (APC) and annual average percent change (AAPC) were calculated to examine trends in incidence and mortality rates across urban-rural and racial subgroups between 1996 and 2016.

RESULTS

Areas with high MIRs tended to be rural counties.

Rural residents had higher proportions of distant stage CRC compared to urban residents, and Black population had higher proportions of distant stage CRC compared to Whites (26.3% vs. 22.7% and 29.3% vs. 23.7%, respectively; p-value < 0.05).

From 1996-2016, Black and White urban dwelling residents experienced a significant decline in incidence. Urban Whites, urban Blacks, and rural Whites experienced significant declines in mortality (AAPC=-2.6%UW vs. -2.4%UB vs. -1.6% RW vs. -0.9%RB, respectively).

CONCLUSIONS

Despite improvements in CRC screening in recent years, focused evidenced-based interventions for lowering incidence and mortality through improving early detection and treatment among rural and Black populations in SC are necessary.

REFERENCES


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