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## Reply to Colon Cancer Survival in the US Department of Veterans Affairs by Race and Stage: 2001 Through 2009

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We thank Azar et al for comparing colon cancer survival by race within the US Department of Veterans Affairs (VA) health care system for 2001 through 2009 with the results from CONCORD-2. The authors offer evidence that is consistent with our hypothesis for the persistent racial differences in survival we reported.

The population-based survival data from CONCORD-2 covered 37 states and approximately 80% of the US population, and demonstrated that between 2001 and 2003 and 2004 and 2009, the 5-year net survival for all races combined increased by 0.9%, but survival remained approximately 9% to 10% lower for black compared with white individuals.<sup>1</sup> Although the proportion of patients diagnosed at a localized stage of disease increased among both black and white patients, it was 5% lower in black patients during both calendar periods. Survival was lower for black than for white patients at each stage of disease.

Azar et al examined colon cancer survival in the VA Cancer Cube Database between 2001 and 2009. They found no difference between black and white individuals with regard to the percentage of patients diagnosed at early stages of disease. Overall and stage-specific 5-year survival also were found to be similar among black and white individuals.

The authors did not specify which inclusion criteria they used (approximately 18% of patients were excluded from survival analysis) or which statistical method was used to estimate survival. However, as in our study, the results are internally consistent because identical inclusion criteria and statistical methodology were used for black and white individuals.

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The findings and conclusions in this report are those of the authors and do not necessarily reflect the official position of the CDC.

In population-based analyses, we found wide racial differences in colon cancer survival, whereas in analyses restricted to the VA database, Azar et al found no racial differences in stage distribution or in 5-year survival.

The findings reported by Azar et al offer evidence in support of our conclusion that the black-white differences in colon cancer survival in the general US population (i.e., for all patients with cancer) may reflect differences in access to screening and treatment, rather than racial differences in cancer biology. It is well known that the VA system generally yields equal outcomes for black and white patients with colorectal cancer.<sup>2-4</sup>

This observation is confirmed by the analysis performed by Azar et al. The VA system provides equal access to diagnosis and treatment, regardless of race. It includes a focus on timely follow-up for patients who have positive colorectal cancer screening tests and adherence to the quality of cancer care is monitored.<sup>5</sup>

In the general population, as we mentioned in our article,<sup>1</sup> screening is lower among the uninsured, who often face challenges in accessing high-quality care.<sup>6</sup> Residents of rural areas or low socioeconomic status neighborhoods have more limited access to high-quality treatment.<sup>7</sup> Black individuals are more likely to be uninsured than white individuals,<sup>8</sup> and more often reside in high-poverty neighborhoods.<sup>9</sup>

Our findings, coupled with the analyses of Azar et al regarding survival among patients treated in the VA system, suggest that equal access to timely, high-quality screening, diagnosis, and treatment for the entire population would go a long way toward eliminating racial disparities in colon cancer survival.

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