Disparities in Testing for Deficient Mismatch Repair Genes Among Medicare Beneficiaries With Colon Cancer in the United States: a claims-based analysis.

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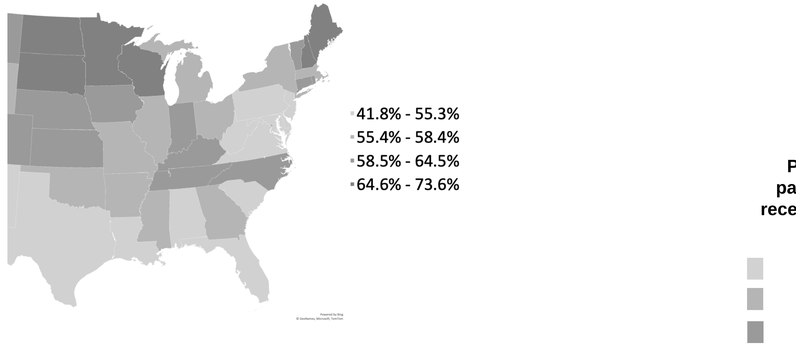
Background

- Guidelines recommend deficient mismatch repair/ microsatellite instability (dMMR/MSI) genomic testing for all patients with colon cancer.[1]
- dMMR/MSI is present in 5% - 20% of colon cancers.[2]
- Patients with dMMR/MSI positive tumors benefit from immunotherapies that help the immune system attack cancer cells.[3]
- The benefits of innovative immunotherapies tend to reach socially disadvantaged groups last.[4]



Why is it important to know whether patients are tested for dMMR/MSI?

- Inadequate genomic testing may worsen disparities in immunotherapy use and, in turn, reduce survival.
- Identifying patient groups who are less likely to receive dMMR/MSI genomic testing is a critical step towards increasing guideline-based screening and treatment.

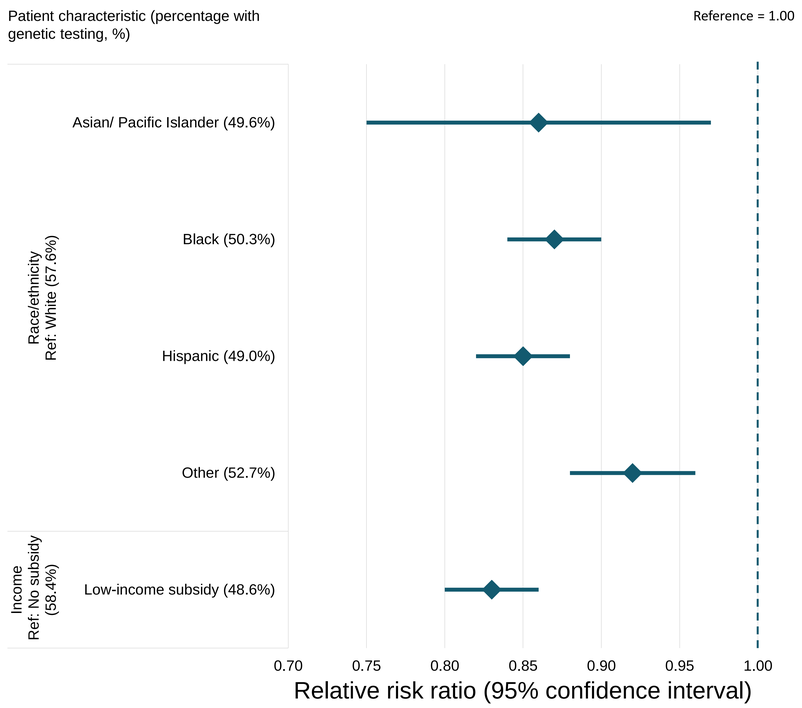
Almost half (43.4%) of patients diagnosed with colon cancer *did not* receive guideline-based genomic testing.

Patients who received guideline-based care were more likely to use life-saving immunotherapies (4.9% versus 1.8%, p<0.001).

Data and methods

- Used the 100% Medicare Fee-For-Service Research Identifiable Files (RIFs).
- Identified patients (n=20,809) who were diagnosed with colon cancer in 2022.
  - In this cohort, 18.6% received a low-income subsidy and 84.1% were Non-Hispanic White.
- Measured receipt of genomic testing and utilization of immunotherapy.
- Tested differences in the likelihood of dMMR/MSI genomic testing by patient sociodemographic characteristics.

Relative risk of dMMR/MSI genomic testing by patient sociodemographic characteristics



What does this study mean for patients with colon cancer?

- This study identified patients at risk for poor outcomes due to low quality care.
- Patients who received a low-income subsidy or who were non-White were less likely to receive dMMR/MSI testing. Reducing testing barriers for these groups may also reduce survival disparities.
- Geographic disparities in dMMR/MSI testing suggests that non-clinical factors influence testing rates. State-level initiatives may help increase uptake.

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