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EDITORIAL

Disparities and inequalities in the clinical outcomes of colorectal cancer

Sadik Al-Hassani and Akinfemi Akingboye*

Russell's Hall Hospital, Dudley Group NHS Foundation Trust, Dudley, United Kingdom

Colorectal cancer (CRC) remains a significant global health issue, with over 1.9 million new cases and 930,000 deaths annually [1]. Despite advances in screening, diagnosis, and treatment, disparities in CRC outcomes persist, disproportionately affecting marginalized populations. These inequalities reflect not only differences in service access but also systemic and cultural barriers that require coordinated, evidence-based solutions.

CRC outcomes vary widely across populations, with significant differences in incidence, stage at diagnosis, treatment access, and survival rates. For example, in the United States, Black individuals have the highest CRC incidence and mortality rates, with a 20% greater risk of mortality from CRC when compared to White individuals [2].

These disparities are not confined to high-income countries; low- and middle-income countries (LMICs) bear a disproportionate burden of CRC due to inadequate screening programs and underdeveloped healthcare infrastructure [3]. Recent data show that over 60% of CRC-related deaths now occur in LMICs, where diagnosis is frequently made at an advanced stage [3]. This leads to poorer outcomes and increased mortality.

Drivers of disparity in CRC outcomes

Data from the National Cancer Registration and Analysis Service (NCRAS) and the Colorectal Cancer Intelligence Hub in the United Kingdom indicate that CRC screening uptake is significantly lower among Black and South Asian populations and those living in deprived areas [4]. Delayed diagnoses and late-stage presentations are more common in these communities, leading to poorer prognoses.

Geography further compounds these disparities. Individuals in rural and remote areas often face limited access to diagnostic services, including endoscopy and oncology clinics, as well as longer travel times for treatment [5]. Although National Health Service (NHS) screening is free at the point of care, indirect costs such as transport, time off work, or lack of childcare can create additional barriers to engagement, particularly for low-income groups. Meanwhile, variation in general practice referral thresholds and insufficient cultural competence among providers may contribute to underdiagnosis and undertreatment in ethnic minority populations [6].

From a more global perspective, LMICs face challenges that hamper early diagnosis and treatment efforts. These include insufficient pathology services and a lack of trained specialists. Furthermore, patients typically must fund their healthcare out of pocket, which acts as a deterrent to seeking surgical care and diagnostic testing, particularly where insurance systems are weak or nonexistent [7].

Solutions to addressing disparity

Screening is the most effective strategy for reducing the incidence and mortality of CRC. Disparities in screening uptake persist due to stigma and mistrust of medical services. Targeted interventions such as mailed fecal immunochemical test (FIT) kits, patient navigation programs, and community-based screening initiatives have shown promise in increasing participation among underserved populations [8]. FIT testing is also a cost-effective solution that can serve as an initial screening tool in resource-poor countries.

Furthermore, cultural mediators and patient navigation schemes, particularly those embedded in primary care, have been shown to improve screening uptake and diagnostic follow-up among underserved populations [9]. Standardizing urgent referral pathways and reducing geographic variation in endoscopy capacity should also be prioritized.

Improving cultural competence across the workforce is also vital. Training on implicit bias and inclusive communication can enhance patient trust and participation. Community health workers, particularly those drawn from the populations they serve, are well placed to deliver culturally appropriate education and support. Training community health workers to educate and guide patients through screening pathways has improved uptake in several LMICs [10].

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Moreover, data collection must continue to disaggregate outcomes by ethnicity, geography, and deprivation to allow for precise targeting of interventions. The NCRAS and Colorectal Cancer Intelligence Hub offer exemplary frameworks for integrating and analyzing such data at scale [11]. International collaborations, such as the WHO's Global Initiative for Cancer Registry Development and the African Cancer Registry Network, are crucial for enhancing data quality and informing region-specific interventions [12].

Achieving equity in CRC outcomes requires a multifaceted approach that addresses the root causes of disparities. Healthcare systems must adopt a patient-centered model that prioritizes accessibility, affordability, and cultural sensitivity. Policymakers, researchers, and clinicians must collaborate to implement evidence-based interventions and advocate for systemic change.

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***Akinfemi Akingboye**
Russells Hall Hospital, Pensnett Road,
Dudley, West Midlands, DY1 2HQ
Email: a.akingboye@nhs.net