Demographic profile of risk assessment module users in the BruHealth app for colorectal cancer screening in Brunei Darussalam

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Track: Research
Theme: Screening and Diagnosis

ABSTRACT

Introduction: Colorectal cancer (CRC) is the most commonly diagnosed cancer among men and the second most common among women in Brunei Darussalam. The Colorectal Cancer Screening Programme was introduced by the Ministry of Health in 2019 with the aim to enable early detection and prevention of colorectal cancer. As an initiative to improve the screening uptake, the programme was incorporated into the national mobile health app, BruHealth, through the Risk Assessment (RA) module in July 2023. This allows individuals to determine their screening eligibility, and conveniently book screening appointments through the app. Aim: This study aims to describe the demographic characteristics of users who completed their CRC screening via the RA module. **Materials and Methods:** A cross-sectional descriptive analysis was conducted using data from the BruHealth User Workstation. The analysis included demographic variables such as age, gender, and district of residence of the users who completed their CRC screening through the app from August 2024 to February 2025. **Results:** A total of 1,771 users completed their screening via the app during the study period. Of these, 50.8% were female and 49.2% were male. The majority of users were aged 50–54 (37.4%), followed by those aged 55–59 (29.9%), 60–64 years (18.4%), 65-69 years (9.3%), and 70-74 years (4.5%). In terms of geographical distribution, most users resided in Brunei-Muara district (71.6%), followed by Belait (19.5%), Tutong (8.1%), and Temburong (0.9%). **Conclusion:** The findings suggest that the CRC Risk Assessment Module is primarily utilised by individuals aged 50–59 years, who constitute 49.7% of the eligible population for the CRC screening. Participation was predominantly from Brunei-Muara district, where more than 70% of the population resides. This study provides critical baseline data on the users engaging with the RA module and will inform future health promotion strategies especially targeting those with lower engagement.

Keywords: colorectal cancer, bruhealth, risk assessment module, health screening