Socioeconomic differences in attendance and yield of the Dutch national colorectal screening programme with faecal immunochemical testing.

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Background: Socioeconomic inequalities with gFOBT screening for colorectal cancer have been previously reported. FIT has shown to be more acceptable to the population. In this study, we therefore investigate whether FIT screening is less prone to SES differences in attendance and if SES differences in yield exist.

Methods: All invitees in 2014 and 2015 in the Dutch national colorectal cancer screening programme were included in the analyses. We used area SES as a measure for socioeconomic status and divided into quintiles, with Quintile 1 being the least deprived. Logistic regression analysis was used to compare the attendance rate, attendance to diagnostic colonoscopy, positivity rate, positive predictive value (PPV) and detection rate across the socioeconomic groups.

Results: The attendance to primary screening and diagnostic colonoscopy was significantly lower for Quintile 5 (67.0% (adjusted OR 0.73, 95%CI: 0.72-0.74) and 75.8% (adjusted OR 0.73, 95%CI: 0.69-0.77) respectively) compared to the other Quintiles (73.0%- 75.1% and 80.0%-82.4% respectively). Despite the fact that the positivity rate gradually increased with an increase in deprivation (Quintile 1: 5.8%, Quintile 5: 7.1% (adjusted OR 1.22, 95%CI 1.20-1.25)), the PPV of advanced neoplasia and colorectal cancer did not substantially differ by SES (Quintile 1: 56.8% and 9.4% respectively, Quintile 5: 56.1% (adjusted OR 0.98, 95%CI 0.93-1.03) and 9.0% (adjusted OR 0.94, 95%CI 0.86-1.02) respectively). Consequently, detection rates for advanced neoplasia and colorectal cancer also gradually increased with higher quintile (Quintile 1: 2.7% and 0.45% respectively, Quintile 5: 3.3% (adjusted OR 1.20%, 95%CI 1.16-1.20) and 0.52% (adjusted OR 1.17, 95%CI 1.08-1.27) respectively).

Conclusions: Colorectal cancer screening has the potential to reduce socioeconomic inequalities in health, because of a higher yield in more deprived participants. However, this higher yield could be offset by the lower participation in this group.