

# Is overdiagnosis a concern for Bowel Cancer screening in England? - an analysis of recent trends in colorectal cancer incidence

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**Bowel Cancer Screening Programme**

## Background

Colorectal cancer (CRC) screening using biennial gFOBT was introduced in England in September 2006\* and by 2010 was being offered >90% of 60-69yr olds, rising to >95% of 60-74yr olds by 2014.

Overdiagnosis of cancer is a major concern of cancer screening programmes; in breast cancer it has been estimated that around 50% of screen detected cancers might be due to overdiagnosis. This study seeks to examine the trends in CRC incidence and ascertain what impact screening has had on incidence.

## Method

Data for the period 2001-16 was extracted from the ONS website ([www.ons.gov.uk](http://www.ons.gov.uk)) and CRC incidence rates by 5yr age bands from age 45 calculated. CRC was defined according to the ICD 10th Revision codes C18 (colon) and C19/C20/C21 (rectum, recto-sigmoid & anus).

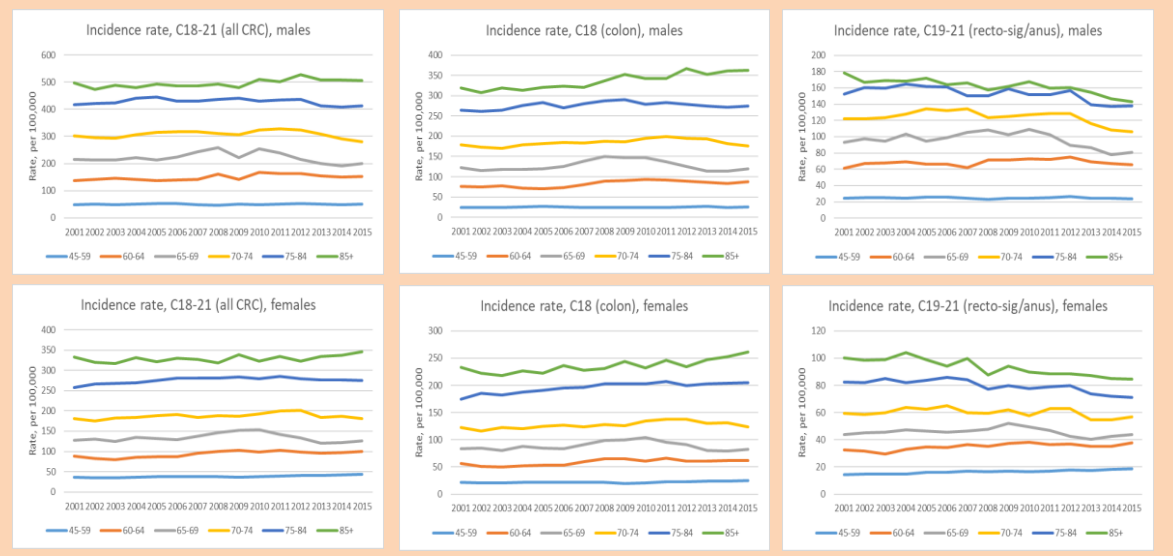
Changes in incidence rates in age groups never offered screening were compared with those offered screening (age group 60-74 years).

## Results

Figure 1 shows the incidence rates over the period studied of colon and recto-sigmoid/anal cancers. Total CRC incidence in the 60-64 age band has increased, with a clear step increase in 2009/10 coinciding with the completion of screening roll-out. In the 65-69 age band there were similar peaks in 2008-10 before a decline to below pre-screening rates. In the 70-74 age band for whom screening started in 2010 there were peaks in 2011/12 before declining below pre-screening rates. These patterns were similar for both colon (C18) and for rectal (C19-21) cancers.

As shown in Table 1 there have been increases in CRC incidence in the 60-64 age band, with decreases in the older ages groups.

**Figure 1. Colorectal cancer incidence by 5 yr age-band and sex in England & Wales from 2005 to 2015, for colon (C18) and recto-sigmoid/anal (C19-21) cancers**



## Conclusion

- At this point we could find no evidence of overdiagnosis of CRC.
- While there has been a 13% increase in CRC incidence in the 60-64 age band, consistent with the first (prevalent) screening round there has been no sustained increase in the older age bands offered screening.
- Of note there has been an increase in incidence of rectal cancer in women under age 60.

**Table 1. Relative changes in colorectal cancer incidence (C18-21) by 5 yr age-band in England & Wales from 2005 to 2015**

	45-49yrs	50-54yrs	55-59yrs	60-64yrs	65-69yrs	70-74yrs	75-79yrs	80-84yrs	85+yrs
Men	+1%	-5%	+1%	+12%	-6%	-11%	-10%	-3%	+3%
Women	+15%	+20%	+18%	+14%	-4%	-4%	-4%	+5%	+8%

## References and declarations

\*Logan RF, Patrick J et al. Outcomes of the BCSP in England after the first 1 million tests. GUT 2012 Oct; 61:1439-46

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Presenter Declarations 

This presenter has the following declarations of relationship with industry:

- NONE

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