Dutch roll out of FIT has led to an increase in cancer detection

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Possible conflicts of interest

• No conflicts of interest
Dutch CRC screening program

• Biennial

• Age 55 to 75 years

• Personal invitation letter including FIT by postal mail

• Yearly national monitor report

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CHALLENGES AHEAD
Phased implementation

Roll-out in five years by age groups
Dutch CRC screening program

Cut-off level:

before July 2014: $15 \mu g \text{ Hb/g feces}$

from July 2014: $47 \mu g \text{ Hb/g feces}$
Definition and complete database

• Incomplete data in May

• Definition of advanced adenoma
Results – first year

2014

• 529,056 (71.3%) participants
• 40,842 (7.8%) positive FIT
• 31,759 (77.8%) diagnostic colonoscopy

• 2,482 cancers
• 12,030 advanced adenomas
Results – first year

• Positivity rate
  15 µg Hb/g feces
    15,802 (12.2%)
  47 µg Hb/g feces
    25,040 (6.3%)

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Results – first year

• Age adjusted positivity rate

15 μg Hb/g feces

10.6%

47 μg Hb/g feces

6.7%
Results – first year

• Positive predictive value (PPV)

15 μg Hb/g feces
  CRC: 911 (7.2%)
  AA: 4,319 (34.3%)

47 μg Hb/g feces
  CRC: 1,572 (8.2%)
  AA: 7,711 (40.3%)
Results – first year

• Age adjusted PPV

15 μg Hb/g feces
  CRC: 6.8%
  AA: 35.3%

47 μg Hb/g feces
  CRC: 8.9%
  AA: 40.2%

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Results – first year

- Detection rate per 1,000 screened
  15 µg Hb/g feces
    CRC: 911 (7.0‰)
    AA: 4,319 (33.4‰)
  47 µg Hb/g feces
    CRC: 1,572 (4.0‰)
    AA: 7,711 (19.5‰)
Results – first year

- Age adjusted detection rate

15 μg Hb/g feces
- CRC: 5.8‰ (7 ‰)
- AA: 30.8‰ (33.4 ‰)

47 μg Hb/g feces
- CRC: 4.4‰ (4.0 ‰)
- AA: 20.6‰ (19.5 ‰)
Results – first year

Toes-Zoutendijk et al., Gastroenterology, 2017
Results – second year

2015

• 848,761 (72.6%) participants
• 53,490 (6.4%) positive FIT
• 42,465 (79.4%) diagnostic colonoscopy
• CRC: 3,692
• AA: 20,536
Results – second year

- PPV CRC: 8.7%
- PPV AA: 48.5%
- Detection rate CRC: 4.3‰
- Detection rate AA: 24.2‰
Summary 2014 and 2015

- Participants
- Positivity rate
- Participants coloscopy
- PPV CRC + AA
- Detection rate CRC + AA

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### Summary

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2014 update</th>
<th>2015</th>
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</thead>
<tbody>
<tr>
<td>Participants</td>
<td>71.3%</td>
<td>71.3%</td>
<td>72.6%</td>
</tr>
<tr>
<td>Positivity rate (47 µg Hb/g feces)</td>
<td>6.3%</td>
<td>6.3%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Detection rate CRC</td>
<td>0.40%</td>
<td>0.49%</td>
<td>0.43%</td>
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<tr>
<td>Detection rate CRC + AA</td>
<td>2.35 %</td>
<td>3.03 %</td>
<td>2.85 %</td>
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<tr>
<td>PPV CRC</td>
<td>8.2%</td>
<td>9.5%</td>
<td>8.7%</td>
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<tr>
<td>PPV CRC + AA</td>
<td>48.5%</td>
<td>58.5%</td>
<td>57.2%</td>
</tr>
</tbody>
</table>
Website RIVM

Results from 2014 + 2015

Website:

http://www.rivm.nl/dsresource?objectid=45f8090e-538e-4f24-ac8a-af6aac57b95b&type=pdf&disposition=inline