

# Intention to have blood-based multi-cancer early detection (MCED) screening – a cross-sectional population-based survey in England

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## Background

A number of MCEDs are in development<sup>1</sup> and trials are currently underway to establish the clinical utility of these tests in asymptomatic individuals, with the hope that MCEDs could be used for population screening in the future.<sup>2-4</sup>

It is essential that public attitudes to MCED screening are better understood prior to any future implementation.<sup>5</sup>

We sought to understand public acceptability of MCED blood tests and potential barriers and facilitators to participation.

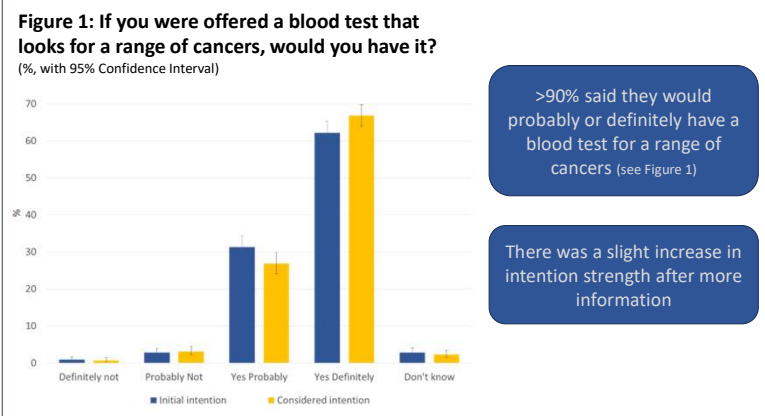


## Methods

- Adults aged 50-77 completed an online survey hosted by YouGov.
- The sample was representative of the English population.
- Participants were given basic information about MCED screening, followed by further information about follow-up procedures.
- The primary outcome was intention to have MCED screening if offered, asked after initial ('initial intention') and further ('considered intention') information.
- Anticipated barriers, facilitators and psychological variables were assessed.
- We used logistic regressions to test associations between intentions, and socio-demographic and psychological factors.

## Results

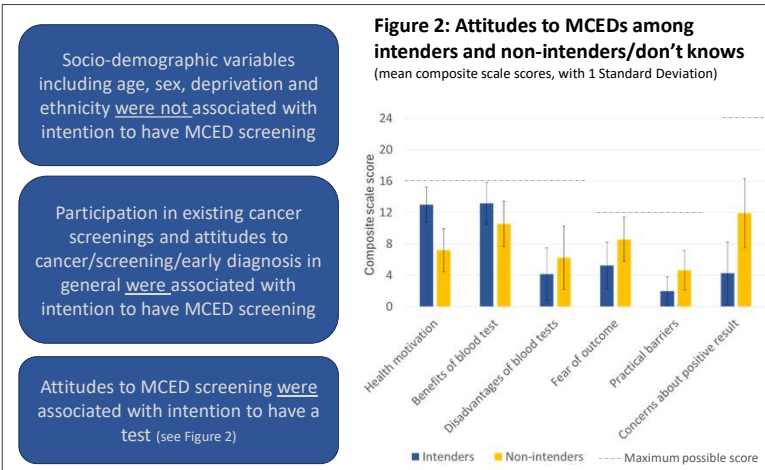
Data from 958 participants was included. All analyses were weighted so the sample is population-representative.



**Table 1: Proportion of participants who endorsed each barrier and facilitator to participating in MCED screening** (within each of the six composite scales and for three individual items; n=958, weighted data)

	% (95% CI) for item
<b>Health motivation<sup>a</sup></b>	
This test would make me feel I was doing something positive about my health	86.5 (84.1-88.5)
I would want this test even if I felt healthy	82.5 (79.9-84.8)
This test would give me reassurance	79.1 (76.4-81.6)
I would not need a test if I did not have any symptoms	3.0 (2.1-4.3)
<b>Benefits of blood tests<sup>a</sup></b>	
Blood tests are familiar to me	86.7 (84.4-88.8)
I am used to having blood tests	76.6 (73.7-79.1)
Blood tests are quick	92.9 (91.1-94.4)
Blood tests are safe	92.7 (90.9-94.2)
<b>Disadvantages of blood tests<sup>a</sup></b>	
I am afraid of needles	12.5 (10.6-14.8)
I find blood tests uncomfortable	19.7 (17.3-22.4)
Blood tests are painful	8.2 (6.6-10.1)
I am afraid of the sight of my own blood	7.4 (5.9-9.3)
<b>Fear of outcome<sup>a</sup></b>	
I would be frightened of what the test might find	45.0 (41.9-48.2)
This test would make me worry about having cancer	32.0 (29.1-35.1)
I would be afraid of having treatment if cancer was found	29.2 (26.4-32.2)
<b>Practical barriers<sup>a</sup></b>	
I would find it difficult to get an appointment at a time that suits me	10.3 (8.5-12.4)
I would find it difficult to travel to an appointment at my GP surgery	3.2 (2.3-4.6)
I would be too busy to have a blood test	1.2 (0.6-2.1)
<b>Concern about a 'positive' result<sup>b</sup></b>	
Feeling worried about having a cancer marker found in my blood	24.9 (22.3-27.8)
Needing to have follow-up tests if a cancer marker was found	19.6 (17.2-22.3)
Being anxious if I needed follow-up tests	25.3 (22.7-28.2)
Needing to have a scan at a hospital	12.8 (10.9-15.1)
Needing to have an endoscopy	29.2 (26.4-32.2)
Needing to have follow-up tests and then no cancer being found	9.9 (8.2-12.0)
<b>Individual items<sup>a</sup></b>	
I would need to know more about how the test works	39.6 (36.5-42.8)
I would not trust the blood test results	2.8 (1.9-4.0)
I would have more important things to worry about than this test	7.4 (5.9-9.3)

<sup>a</sup> % of participants who responded agree or strongly agree (assessed after initial information);  
<sup>b</sup> % of participants who felt this would put them off 'quite a bit' or 'a great deal' (assessed after further information).



## Conclusions

- The findings suggest that intentions to take up MCED screening in England are high. Research in colorectal cancer screening suggests 80% of intenders go on to participate<sup>6</sup>
- While motivation to have MCED screening appears to be equitable across socio-demographic groups, inequity in uptake will likely be driven by access and opportunity which will require further consideration if a programme is implemented.
- Supporting individuals with clear and accessible information will be imperative prior to an offer of an MCED test and measures should be put in place to reduce concern surrounding MCED screening results.

### References

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