Public perspectives on multi-cancer early detection tests (MCEDs)

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Background

- Multi-cancer early detection tests (MCEDs) are an emerging screening tool with the potential to identify up to 50 types of cancers from a single blood test.
- Evidence on the efficacy of MCEDs is emerging, but there is a paucity of research regarding public perspective on these tests.

Approach

- Recruited individuals 45-70 from the American Population Panel, a national survey panel
- Participants watched brief educational video about MCEDs
- Engaged in interview to explore:
 - Initial perceptions of MCEDs
 - Perceived benefits/harms of MCEDs
 - Priorities for use and oversight of MCEDs
- Data were analyzed using framework method

Participants

	N = 27
Age, mean (range)	62 (48 - 70)
Female	74%
Associate's degree or higher	59%
Residence	
Midwest	33%
West	29%
South	29%
Northeast	8%
Race/ethnicity, all that apply	
White	37%
Black/African American	37%
Hispanic	15%
American Indian/Native American	11%
Asian/Pacific Islander	11%
Household income: Less than \$75,000	57%
Cancer history	26%
Family history of cancer	85%
Have been screened for cancer	85%
Colorectal	78%
Breast	66%
Cervical	56%
Prostate	19%
Lung	19%



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Initial impressions of MCEDs



Benefits

Earlier detection Peace of mind Less burdensome Minimally invasive Multiple cancers screened Cost savings Fewer individual screenings



Priorities cancers for detection 45% 40% 35% 30% 25% 20% 15% 10% 5% 0% Hereditary Without Most Cancers Most that effect common established deadly people like screenings you

- No one had heard of MCEDs
- 80% found concept easy to understand

Harms

Cost Anxiety False positives & negatives Unknown inaccuracy Scientific uncertainty Unknown cancer origin Overdiagnosis





Conclusions

Acknowledgments

Overarching themes

Requires benefit-risk tradeoffs

• It'd be nice way to get some peace of mind. Then, you know, I'd have to struggle with saying, okay, am I willing to shell out a thousand bucks to get that peace of mind?

Excitement for precision medicine applications

• Okay, for men and for women, 2 separate tests....if you have one group that tends to have a type of cancer more often than another, offer them a test that's specific.

Concerns about equitable

• Are there inherent biases that might impact the accuracy of the result? To make the point...those pulse oximeters... they more recently realized that people with darker complexions don't necessarily show the same. Maybe it's a human bias. But it became part of the technology.

• There was high interest in MCEDs among members of the US general population, even amidst a paucity of evidence on clinical effectiveness.

Participants had clear preferences and priorities for the use of MCEDs which can be used to inform future development of these tests.

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