

BACKGROUND

- Technology is playing an increasingly prominent role in healthcare, particularly with the growing integration of artificial intelligence (AI) into provider workflows and patient care.
- Patients' perspectives on AI have yet to be systematically investigated or incorporated in discussions about the use of AI in their cancer care.

The aim of this study is to better understand cancer patients' experiences with technology and AI, as well as their perceptions of AI integration in healthcare.

METHODS

- The sample included 666 participants from CSC's **Cancer Experience Registry**, an online research study with longitudinal data collection that aims to understand the emotional, physical, practical, and financial impact of cancer and identify unmet needs among patients, survivors, and caregivers.
- Those who completed relevant questions at the 24-month follow-up survey were included in this analysis.
- In addition to sociodemographic and clinical history questions, participants answered items about technology use and perceptions (*strongly disagree* – *strongly agree*) of AI in healthcare.

PARTICIPANTS

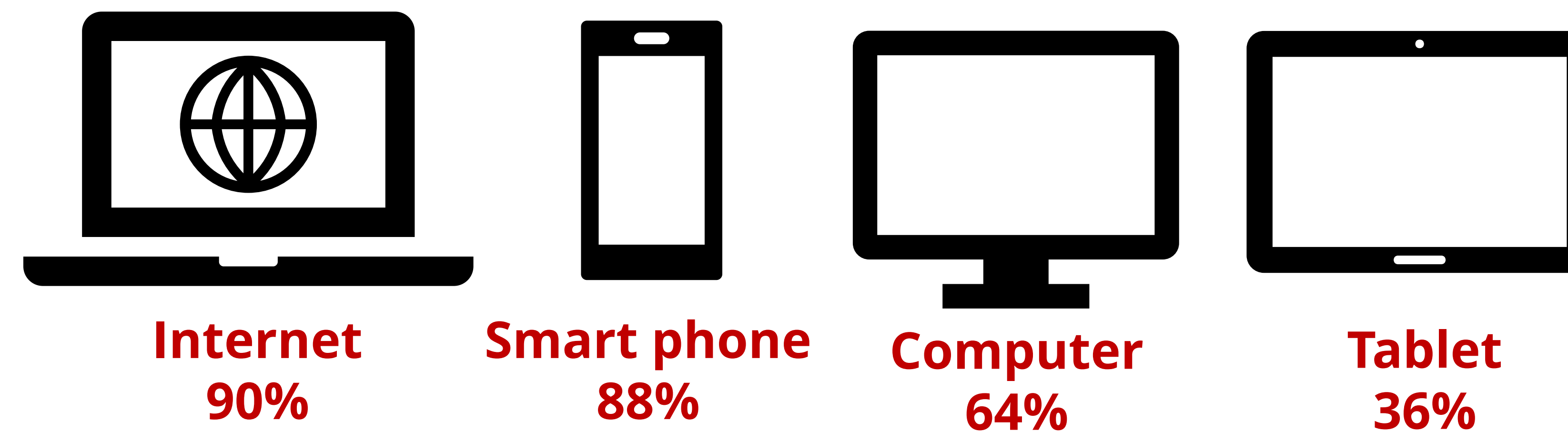
Participant Descriptives (N=666)	Mean/ n	SD/ %
Age (years), range (26-89)	M=63.8	SD=12.2
Gender		
Woman	509	76%
Man	153	23%
Race & Ethnicity		
Non-Hispanic White	580	87%
Non-Hispanic Black / African American	38	6%
Non-Hispanic other/Multiracial	40	6%
Hispanic	8	1%
Household Income		
<\$40,000	131	20%
\$40,000 - \$79,999	143	22%
\$80,000 - \$119,999	96	14%
\$120,000 +	127	19%
Cancer Diagnosis		
Breast cancer	237	36%
Gastrointestinal cancers	112	17%
Hematologic cancers	104	16%
Urologic cancers	55	8%
Lung cancer	34	5%
Gynecologic cancers	31	5%
Other type of cancer	93	14%
Time since Diagnosis	M=10	SD=7.4
1-2 years	8	1%
3-5 years	207	31%
6-10 years	212	32%
>10 years	233	35%
Education		
High school, some college, or Associate's	252	38%
Bachelor's degree	217	33%
Graduate degree	190	29%

Note. % may not add up to 100% due to missing data, Prefer not to share responses, or rounding

RESULTS

How often are participants using technology?

Many participants reported *daily* use of common technology



Additionally, **41% use digital wearables** (e.g., smartwatches) and **23% use health apps** to track behaviors regularly

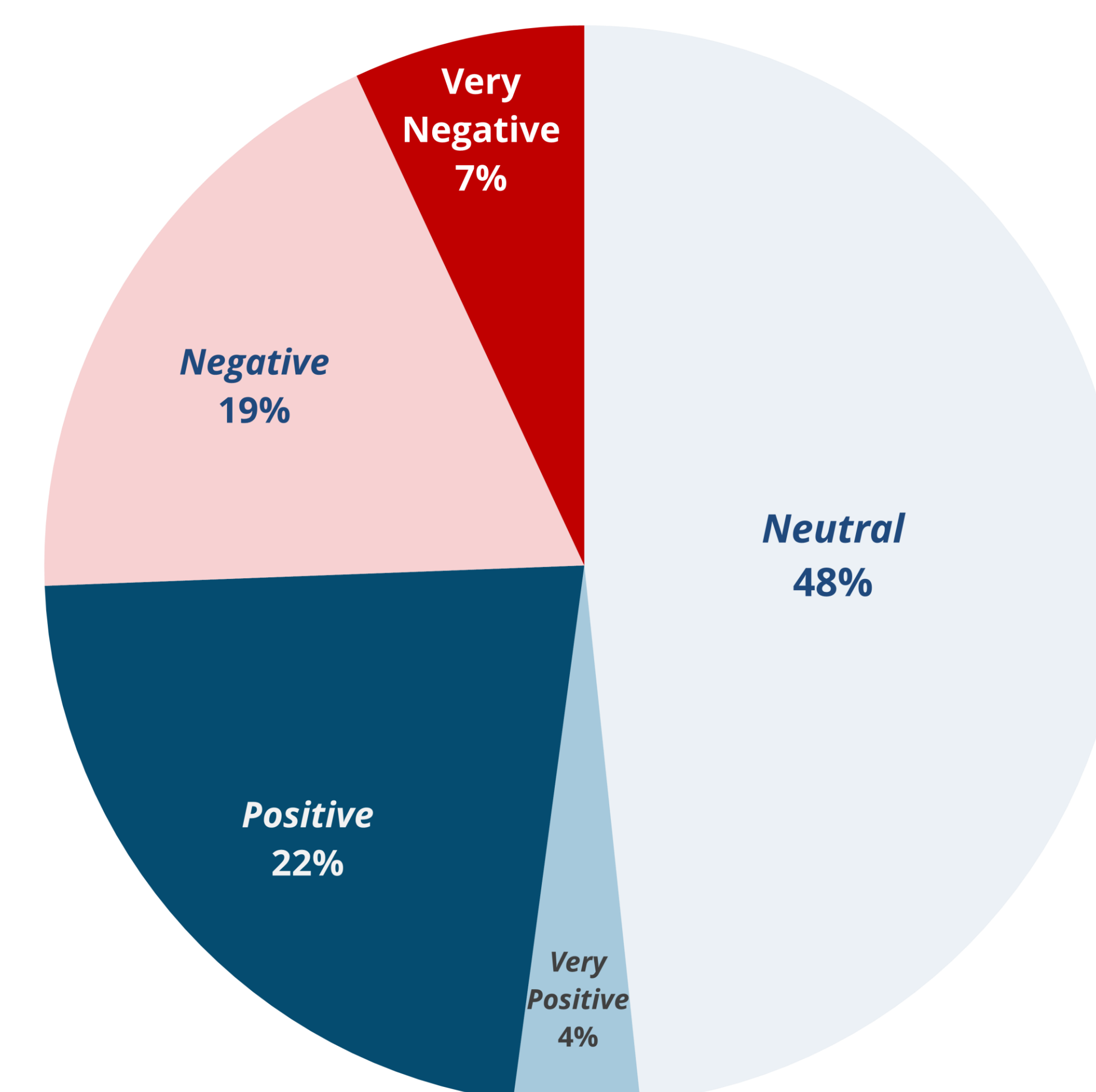
What do patients know about Artificial Intelligence (AI)?

98% are aware of artificial intelligence

31% are confident enough to explain it to others

26% have used AI in the past, but only 18% of those (5% total) reported using AI for health information or medical advice.

Overall, how positive or negative do you feel about the use of Artificial Intelligence (AI) in healthcare?



Please rate to what extent you agree or disagree with the statements below...

I am more confident in recommendations provided by AI than those given by my doctor.	68%	30%
I would trust AI to propose the right treatment plan for me.	45%	44% 12%
I trust AI to make an accurate diagnosis based on a patient's data, like symptoms & test results.	41%	45% 13%
As a result of using AI in healthcare, I think there will be less treatment errors in the future.	31%	54% 15%
I would like my general healthcare decisions to be supported by AI.	35%	43% 22%
I think the use of AI in healthcare will allow doctors to spend more time with their patients.	27%	49% 24%
I would like my cancer care decisions to be supported by AI.	30%	45% 25%
I think that decisions made by AI are likely to be biased in some way.	20%	54% 26%
I think AI is more likely to make mistakes than my doctors are.	18%	51% 32%
I think the use of artificial intelligence will reduce the workload of doctors.	19%	45% 36%
I believe the use of AI in healthcare will harm the doctor-patient relationship	25%	38% 38%
The use of AI in healthcare scares me.	22%	34% 44%
I see the benefits of using AI in healthcare.	17%	38% 45%
I would be willing to share my medical data to help create better AI systems in healthcare.	22%	30% 48%
I would support the use of AI in healthcare if there is scientific data to show it benefits patients.	9%	26% 65%

Strongly Disagree - Disagree Neutral Agree - Strongly Agree

CONCLUSIONS AND IMPLICATIONS

- While most participants express willingness to support AI in healthcare if there is evidence of its benefits, participants also express significant ambivalence towards the use of AI – with **almost half rating the use of AI as “neutral”** rather than positive or negative.
- While many see potential benefits, **concerns around accuracy, bias, and the doctor-patient relationship remain significant** barriers to trust.
- This presents a critical opportunity for health systems, payers, and policymakers to establish safeguards, **enhance transparency, and ensure AI-driven solutions align with patient needs while improving care delivery and efficiency.**
- As AI continues to be integrated into the healthcare system, it's imperative to understand patients' perceptions and concerns and incorporate their voices in the discussions around the use of AI in healthcare. Future research should investigate the **potential differences across race, gender, age, and other sociodemographic factors**, given the extant medical mistrust among underserved communities.

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