

# Exploring Awareness and Perceptions of Genetic Testing for Cancer Risks

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## BACKGROUND

- Genomic screening is a powerful tool that has the potential to decreasing cancer morbidity and mortality in the US<sup>1</sup>
- Population Genetic Screening (PGS) programs seek to offer population-based screening for hereditary conditions, including certain cancers<sup>2</sup>
- Patient willingness to participate as well as potential obstacles to participation in such programs has yet to be extensively evaluated

## OBJECTIVE

To assess the awareness and likelihood of receiving genetic testing for potential cancer risks among a sample of US adults

## REFERENCES

- Green, R. F., Ari, M., Kolor, K., Dotson, W. D., Bowen, S., Habarta, N., et al. (2019). Evaluating the Role of Public Health in Implementation of Genomics-Related Recommendations: a Case Study of Hereditary Cancers Using the CDC Science Impact Framework. *Genet. Med.* 21 (1), 28–37. doi:10.1038/s41436-018-0028-2
- East, K. M., Kelley, W. V., Cannon, A., Cochran, M. E., Moss, I. P., May, T., et al. (2021). A State-Based Approach to Genomics for Rare Disease and Population Screening. *Genet. Med.* 23 (4), 777–781. doi:10.1038/s41436-020-01034-4

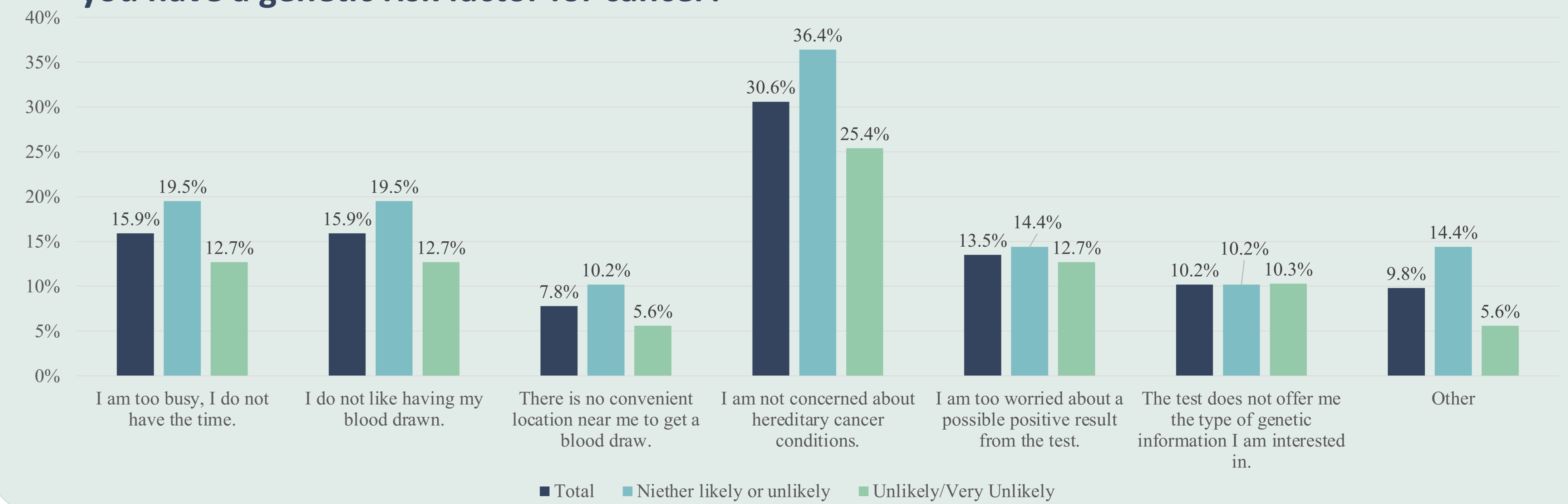
## METHODS

Online convenience sample of US adults was recruited through the Qualtrics Online Panel platform

Participants aged 18 or over and resided in the US were considered eligible

Survey questions were developed to collect information about participant socio-demographics, awareness of genetic services, likelihood of receiving genetic testing, and reasons an individual may be less likely to receive genetic testing

## Why you are neither likely or unlikely/unlikely/very unlikely to get the test to learn whether you have a genetic risk factor for cancer?

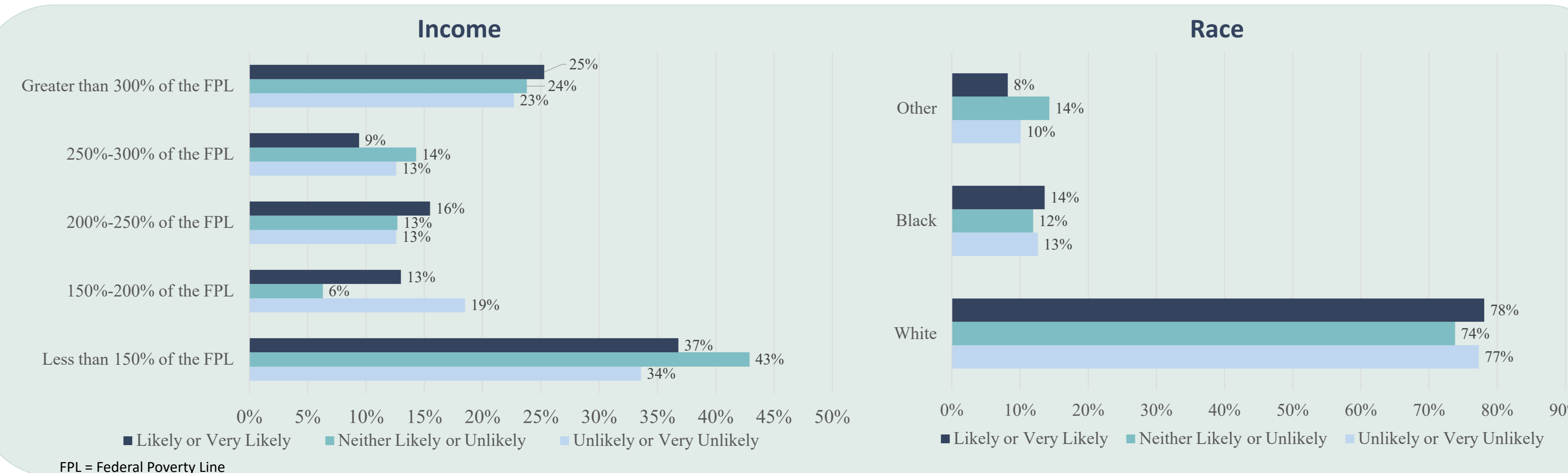


## RESULTS

To learn whether you have a genetic risk factor for cancer, you would need to make an appointment at a local clinic, get your blood drawn, and set up an online account to access your test results. Assuming there is no cost to you, how likely would you be to get this test?

	Total	Unlikely or Very Unlikely	Neither Likely or Unlikely	Likely or Very Likely	P-value
<b>Overall, N (%)</b>	524 (100)	119 (22.7)	126 (24.0)	279 (53.2)	–
<b>Age</b>					
Mean (SD)	44.6 (16.4)	48.0 (18.3)	43.87 (16.1) <sup>^</sup>	44.8 (16.0)	–
Min, Max	18, 88	18, 83	19, 88	20, 84	–
<b>Female</b>	443 (73.8)	90 (75.6)	94 (74.6)	207 (74.2)	0.07
<b>Hispanic</b>	70 (11.7)	12 (10.1)	14 (11.1)	29 (10.4)	0.93
<b>Education</b>					
Less than high school	25 (4.2)	6 (5.0)	7 (5.5)	10 (3.6)	0.61
High school graduate (or GED)	152 (25.3)	25 (21.0)	35 (27.8)	78 (28.0)	–
Some college or technical school	169 (28.2)	32 (26.9)	37 (29.4)	83 (29.7)	–
Associate degree	89 (14.8)	21 (17.6)	18 (14.3)	36 (12.9)	–
Bachelor's degree	119 (19.8)	26 (21.8)	24 (19.0)	51 (18.3)	–
Graduate or professional degree	46 (7.7)	9 (7.6)	– <sup>†</sup>	21 (7.5)	–
<b>Employment status</b>					
Full time	272 (45.3)	46 (38.7)	56 (44.4)	118 (42.3)	0.03
Part time	119 (19.8)	29 (24.4)	25 (19.8)	54 (19.4)	–
Student	12 (2.0)	– <sup>†</sup>	6 (4.8)	– <sup>†</sup>	–
Retired	100 (16.7)	33 (27.7)	15 (11.9)	48 (17.2)	–
Unemployed	97 (16.2)	9 (7.6)	24 (19.0)	56 (20.1)	–
<b>Has primary care provider</b>	310 (51.7)	42 (35.3)	53 (42.1)	161 (57.7)	<0.01
<b>Previously aware of genetic testing</b>	231 (44.1)	53 (44.5)	45 (35.7)	133 (47.7)	0.09

<sup>^</sup>2 participants were non-responsive  
<sup>†</sup>Less than n = 5



## CONCLUSION

- As knowledge of genetic testing for potential cancer risks remains low, even with widespread use, there is a need for targeted education to improve awareness
- There are many factors that influence potential interest in receiving genetic testing such as the use of saliva-based testing and providing more information about testing

## What if anything would make you likely or very likely to get the test?

