



UNIVERSITY of MARYLAND
MARLENE AND STEWART GREENEBAUM
COMPREHENSIVE CANCER CENTER

University of Maryland
Marlene and Stewart Greenebaum
Comprehensive Cancer Center
Community Outreach and Engagement
(UMGCCC COE)

Community Cancer Needs Assessment

Submitted by:
Community Ministry of Prince George's County, Inc.
December 2020



Thanks to the participation of a diverse group of Marylanders from throughout Central Maryland, we now have a better understanding of their cancer-related knowledge, beliefs, and priorities which will help the UMGCCC COE better serve their communities. Their voices matter!

Community Ministry of Prince George's County, Inc., (CMPGC) a non-profit organization and community health resource, was commissioned by the University of Maryland Greenebaum Comprehensive Cancer Center Community Outreach and Engagement (UMGCCC COE) to conduct a cancer needs assessment of the UMGCCC's 10-county catchment area. With over ten (10) years of experience collaborating with the University of Maryland and other universities in cancer education, cancer research, and other health issues, CMPGC welcomed the opportunity to deliver this service to the UMGCCC.

The multi-disciplined team listed below identified key and broad findings from the sampled populations' views of their cancer needs using systematic data collection and analysis.

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GREETINGS

In response to the University of Maryland Greenebaum Comprehensive Cancer Center's (UMGCCC) request, Community Ministry of Prince George's County, a human service organization, and community health resource, assembled a multi-disciplinary team to conduct this community cancer needs assessment. Covering UMGCCC's catchment area in central Maryland, the goal was to describe the cancer-relevant knowledge, beliefs, and priorities in a sample of people living in the ten (10) county catchment area.

This team consisted of community members experienced in conducting cancer research, survey development and data collection execution. Also included were an undergraduate student, a media production executive and UMGCCC academic and medical staff members. The team conducted the needed outreach, data collection, analysis, and reporting to complete the number of surveys with the appropriate demographic sampling of the population UMGCCC requested.

On behalf of Community Ministry of Prince George's County, thank you Professor Cheryl L. Knott, Dr. Shana O. Ntiri, and UMGCCC's leadership team for the opportunity to provide this service and to work collaboratively with your team in completing this assessment and reporting the results.

For more information, visit <https://www.cmpgc.com>.

Sincerely,

A handwritten signature in black ink that reads "Jimmie L. Slade".

Jimmie L. Slade, MMAS, MA
Director, Data Collection and Assessment Team
Executive Director
Community Ministry of Prince George's County, Inc.



WELCOME

In my role as Associate Director for Community Outreach and Engagement at the University of Maryland Greenebaum Comprehensive Cancer Center, I am pleased to share this report from our first catchment area-wide community cancer needs assessment. Having been involved in community-engaged research for the past 20 years, I understand the value of listening to community voices and incorporating those voices into public health and medical research. Only when we understand the needs and priorities of the community, are we in a position to serve and provide benefits.

This report summarizes findings from a recent survey of over 500 people in central Maryland, about their cancer-related beliefs, needs, and priorities. I extend my appreciation to the multidisciplinary, community-led team that conducted the survey, and a warm thank-you to all those who completed the survey. We will use the information in this report to inform the research, outreach, and education activities of the Cancer Center moving forward. I look forward to working closely with Cancer Center leadership, researchers, and staff to translate these findings into our future activities.

Sincerely,

A handwritten signature in black ink that reads "Cheryl L. Knott". The signature is fluid and cursive.

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ABOUT UMGCCC

The University of Maryland Marlene and Stewart Greenebaum Comprehensive Cancer Center (UMGCCC) shows its commitment to the Maryland community by providing a team-based approach to care, innovative clinical trials, education and support services, and no-cost cancer screenings, diagnosis, and treatment through the Baltimore City Cancer Program.

The Office of Community Outreach and Engagement (COE) was created to further expand upon UMGCCC's effort in promoting cancer health equity. Our goal is to apply community outreach and engagement strategies to inform UMGCCC research and make an impact along the cancer continuum in the catchment area, with a particular focus on eliminating cancer disparities.

For more information, visit <https://www.umms.org/umgccc/community>.



TABLE OF CONTENTS

I.	Executive Summary	9
	a. Implementation	
	b. Major Findings	
II.	Introduction	10
	a. Purpose	
	b. Team	
III.	Outreach and Recruitment	11
	a. Promotion	
	b. Implementation	
V.	Data and Key Findings	12
	a. Sample Description	
	b. Key Survey Items	
	c. Summary and Significance of Findings	
VI.	Next Steps	26
	a. Dissemination	
	b. Implementation	
	c. Future Work	
VII.	Acknowledgments	27
VIII.	Reference	29
VIII.	Appendices	30
	a. Appendix A – Data Collection Tool	
	b. Appendix B – Survey Promotional Materials	
	c. Appendix C – Additional Data Tables	

EXECUTIVE SUMMARY

The purpose of the University of Maryland Greenebaum Comprehensive Cancer Center (UMGCCC) community cancer needs assessment (hereafter referred to as the “community health survey”) was to learn more about the cancer-related knowledge, beliefs, and priorities of people who live in the UMGCCC catchment area. Participants were recruited from the following 10 counties that comprise the catchment area: *Anne Arundel, Baltimore/Baltimore City, Carroll, Charles, Frederick, Harford, Howard, Montgomery, Prince George’s, and Washington*. Information from the survey will help the UMGCCC better understand the cancer needs and priorities of Marylanders living in our catchment area and inform future UMGCCC cancer education, outreach, screening, treatment, and research activities.

We sought a diverse group of Maryland adults to complete the community health survey, with a goal of receiving at least 50 completed surveys from individuals representing each of the 10 counties totaling 500 participants. Those who completed the survey were offered a \$15.00 digital gift card.

Implementation

Our team was led by the nonprofit organization Community Ministry of Prince George’s County (CMPGC) and included UMGCCC faculty and staff, community members, and students. Additionally, Cancer Health Ambassadors from UMGCCC Community Outreach and Engagement (COE) supported the work of the core team.

Major Findings

Data presented prostate, breast, lung, and colorectal cancers as priority cancers from the perspectives of individuals living in the UMGCCC catchment area. To reduce the impact of these cancers, it is critical to address various cancer risk factors. Prevention was the most reported topic that people in the catchment area felt they need to know about. Tobacco, obesity, the environment, and lack of physical activity were also commonly reported modifiable risk factors among participants. Genetic predisposition was frequently reported, though this risk factor may not be modifiable.

Combating fear associated with cancer should be a priority for screening interventions in the UMGCCC catchment area. Within the climate of the COVID-19 pandemic, telehealth appointments are critical to healthcare delivery. Data presented suggest that telehealth is already used to reach patients in the UMGCCC catchment area. Telehealth can be an effective way to reach patients when in-person appointments are not necessary or advisable. Some patients may not be able or willing to receive care via telehealth methods, so exploration of other suitable methods to engage these patients is advised.

While most findings were consistent across participant demographics, there were some differences by race, ethnicity, county and other factors on particular cancer-related concerns. Participants were generally open to participation in research, though less so to trials testing cancer drugs.

INTRODUCTION

Purpose

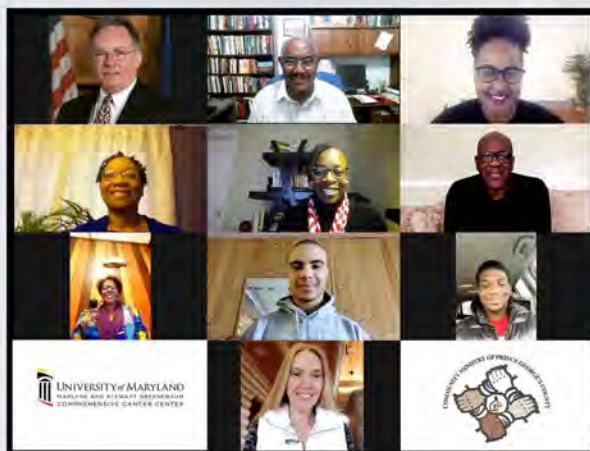
The purpose of the University of Maryland Greenebaum Comprehensive Cancer Center (UMGCCC) community cancer needs assessment (hereafter referred to as the “*community health survey*”) was to learn more about the cancer-related knowledge, beliefs and priorities of people who live in the UMGCCC catchment area. Information from the survey will help the UMGCCC better understand the cancer needs and priorities of Marylanders living in our catchment area and inform future UMGCCC cancer education, outreach, treatment, and research activities.

We sought survey responses from a diverse group of Marylanders, with a goal of receiving at least 50 responses from individuals residing in each of the 10 catchment area counties. The survey was completed anonymously, as personal information was not collected. Those who completed the survey were offered a \$15.00 digital gift card.



Team

Our team was led by the nonprofit organization Community Ministry of Prince George's County (CMPGC) and included UMGCCC faculty and staff, community members, and students.



OUTREACH AND RECRUITMENT

Promotion

Promotional materials consisted primarily of scripted emails to individuals and organizations that asked them to distribute the survey recruitment materials to their contact lists or groups. Recruitment materials were also posted on the UMGCCC and CMPGC websites. Audio and video presentations were developed for online marketing and Public Service Announcements (PSAs). The video was used and well-received in various professional forums and presentations to increase awareness about the community health survey (see Appendix B).

Implementation

The survey protocol (HP-00092022) was submitted to the University of Maryland, Baltimore Institutional Review Board (IRB) and was determined to be exempt under 45 CFR 46.101(b) from IRB review. Upon receiving IRB determination, our team began planning, development, recruitment, and outreach efforts early summer 2020 and met benchmarks on or before schedule. Despite the impact of the COVID-19 pandemic on our initial data collection strategies, data collection was completed ahead of schedule using an entirely virtual recruitment strategy through an online survey.



DATA AND KEY FINDINGS

Sample Description

Findings from this community health survey are based on 577 survey responses from individuals in the UMGCCC catchment area. A minimum of 50 surveys were collected from each county (see Table 1). The average age of participants was 43 (standard deviation of 12), 59% were female, and 42% had completed a 4-year college degree or greater.

Table 1: Survey participation by Maryland County (N=577)	
County	Frequency (%)
Anne Arundel	53 (9.2%)
Baltimore City/County	64 (11.1%)
Carroll	50 (8.7%)
Charles	50 (8.7%)
Frederick	67 (11.6%)
Harford	54 (9.4%)
Howard	62 (10.7%)
Montgomery	73 (12.7%)
Prince George's	52 (9.0%)
Washington	52 (9.0%)

The survey sample was intended to reflect the racial and ethnic diversity of the UMGCCC catchment area (see Table 2). The following should be considered in context of this data:

- Though COVID-19 was not the primary focus of this community health survey, we acknowledge that data collection was conducted from August to November 2020. At this time, many individuals may have been experiencing unique circumstances due to the pandemic.
- We note that nearly one quarter of participants were not working at the time that they responded due to COVID-19 related disruption.
- One quarter of the participants indicated that they had been diagnosed with cancer, though the responses to key items of interest from cancer survivors and those without any personal history of cancer were similarly patterned.
- No considerable differences were noted based on participant age.

Table 2: Survey Participant Demographics (N=577)	
	Frequency (%)
Age ^M	42.7 (12.4)
Gender ^Δ	
Female	339 (59.2%)
Male	234 (40.8%)
Race*	
White	298 (51.6%)
Black or African American	206 (35.7%)
American Indian or Alaska Native	23 (4.0%)
Asian	46 (8.0%)
Native Hawaiian or Pacific Islander	3 (0.5%)
Another race	13 (2.3%)
Hispanic, Latino	62 (10.7%)
Education	
Some high school or less	2 (0.3%)
High school or GED	37 (6.4%)
Some college	131 (22.7%)
2 year technical or trade school	168 (29.1%)
4-year college degree	121 (21.0%)
Master's degree or higher	118 (20.5%)
Employment	
Unemployed prior to COVID-19	75 (13.0%)
Unemployed due to COVID-19	137 (23.7%)
Receiving disability	5 (0.9%)
Retired	25 (4.3%)
Work part time	135 (23.4%)
Work full time	200 (34.7%)
Diagnosed with cancer	147 (25.5%)
Breast●	37 (25.2%)
Lung●	37 (25.2%)
Colorectal●	34 (23.1%)
Cervical●	27 (18.4%)
Prostate●	20 (13.6%)
Melanoma or skin●	12 (8.2%)
Other●	4 (2.7%)
*Percentages may not sum to 100, as participants were able to select multiple racial categories. ●Percentage is of those diagnosed with cancer. Percentages may not sum to 100; participants were able to select multiple cancer diagnoses. ^M Mean (SD) are presented instead of frequency (%). ^ΔFour participants responded 'prefer not to answer' to this item.	

Key Survey Items

Survey item: “What types of cancer affect your community most?”

Participants reported on the types of cancer they perceived to have the greatest impact on their community. Participants were able to indicate multiple responses. The cancers reported most frequently among the sample were prostate (57%), breast (50%), lung (42%), colorectal (41%) and skin (35%). However, these reports were not entirely consistent across demographic groups. Demographic highlights include:

- Prostate cancer was heavily reported by Black or African American participants (68%), while Asian and Hispanic or Latino individuals reported prostate cancer less frequently (33% and 40%, respectively) and recognized breast cancer as a priority within their community (80% and 79%, respectively) (see Figure 1).
- Perhaps not surprisingly, prostate cancer was more frequently reported by male participants than female participants (69% and 49%, respectively) and breast cancer was more frequently reported by female participants than male participants (61% and 33%, respectively).
- Prostate cancer was reported consistently across counties in the top three cancers affecting the community. While reports of pancreatic and cervical cancer were generally low, pancreatic cancer was reported considerably more often in Prince George’s County (33%) than in the overall sample (18%) and cervical cancer was reported more often in Baltimore (25%) and Frederick County (22%) than in the overall sample (12%). See Appendix C for more detailed data by county.
- Colorectal cancer was reported by White (43%) and Black or African American (41%) participants at about the same frequency. These groups comprise more than 86% of participants.
- Breast cancer was reported considerably more frequently by those with a 4-year degree or greater as compared to those without (75% and 32%, respectively). Similarly, cervical cancer was reported more frequently by those with a 4-year degree than those without (21% and 6%, respectively) (see Appendix C).
 - Of note, 49% of females in this sample had a 4-year degree or greater as compared to 31% of males.

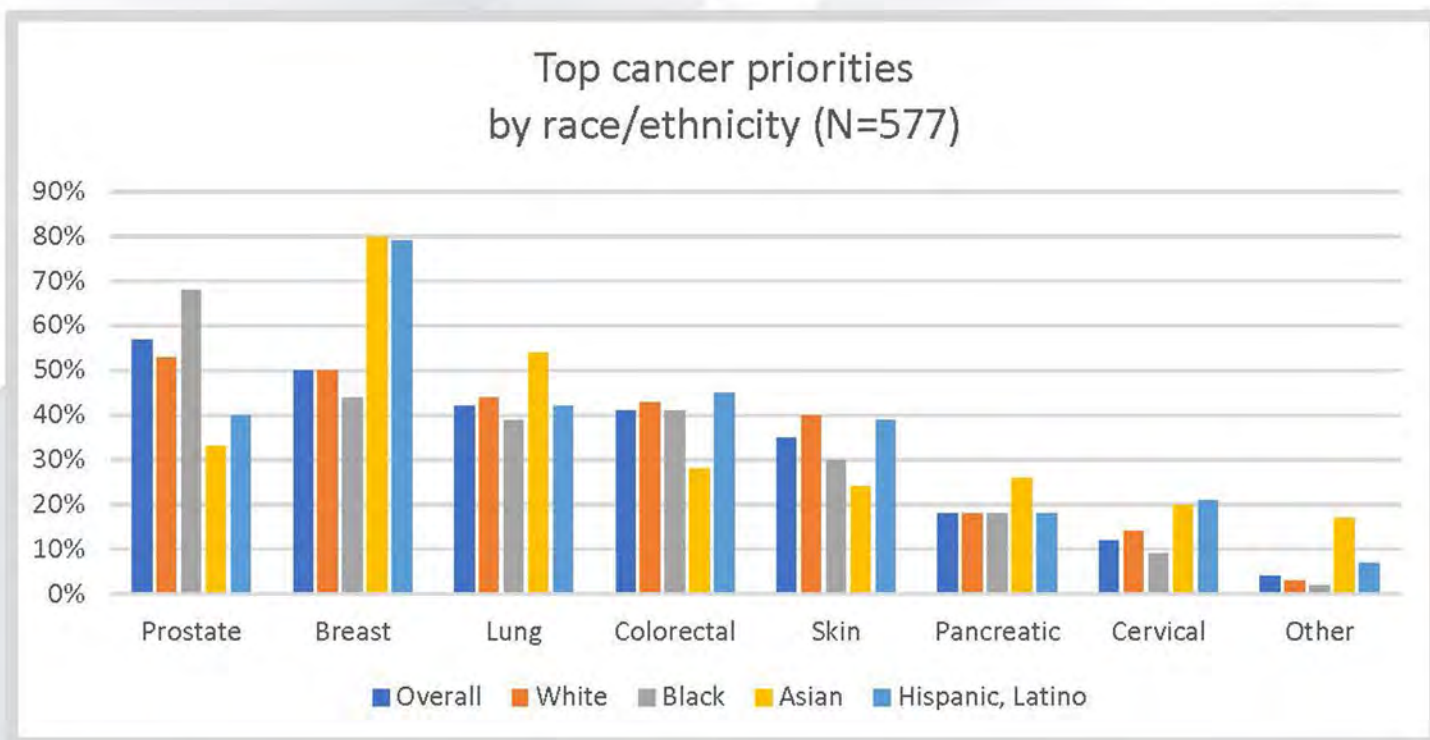


Figure 1: Percentages may not sum to 100, as participants were able to select multiple responses. Additional racial/ethnic categories are not presented due to limited representation (<5%) within the sample.



Survey item: “What things contribute most to cancer in your community?”

The most frequently reported contributors to cancer were tobacco (65%), genetics/family history (54%), obesity (47%), environment (43%), and lack of physical activity (40%). Demographic highlights include:

- **Tobacco use was reported by over 60% of participants. Specifically, White (68%), Hispanic or Latino (66%), and Black or African American (63%).**
- **Genetics/family history was reported by over 70% of Asian and Hispanic or Latino participants as compared to 54% in the overall sample (see Figure 2). Of note, 55% of Black or African American participants reported genetics/family history.**
- **Lack of cancer information was reported considerably more frequently among Asian (50%) and Hispanic or Latino (47%) individuals than in the overall sample (20%).**
- **Environment was reported most by White (49%) and Black or African American (39%) individuals.**
- **Black or African American and White participants reported the same frequency of 50% for obesity.**
- **Hispanic or Latino and Black or African American participants reported lacking healthcare more frequently (39% and 30% respectively).**
- **Those with a 4-year college degree or greater reported all contributors more frequently than those without a 4-year degree (e.g., 67% reported genetics and 42% reported lacking healthcare among those with a 4-year degree, as compared to 46% reporting genetics and 15% reporting lacking healthcare among those without a 4-year degree).**
 - o **However, the patterns of which contributors were reported most frequently were the same in both education groups (see Appendix C).**

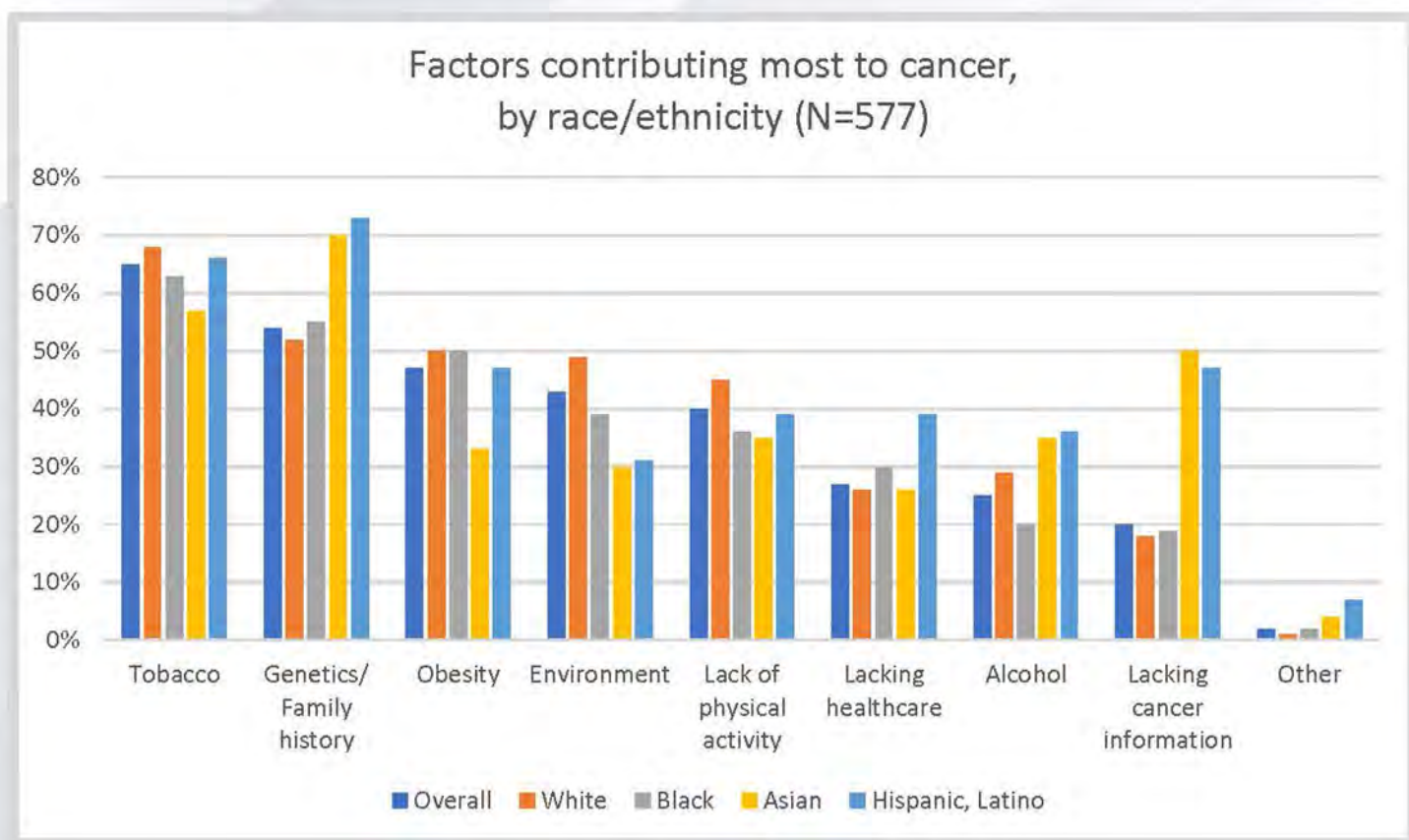


Figure 2: Percentages may not sum to 100, as participants were able to select multiple responses. Additional racial/ethnic categories are not presented due to limited representation (<5%) within the sample.

Survey item: "What keeps people in your community from getting screened?"

The fear of finding cancer was the most frequently reported barrier to cancer screening within these communities (55%). Fear of screening causing pain and fear that screenings may cause cancer were also frequently reported (43% and 34%, respectively), as were lack of transportation (34%), and being too busy to get screened (33%). Demographic highlights include:

- White (37%) and Black or African American (33%) individuals reported lack of transportation more frequently than other participants.**
- Belief that screening can cause cancer was reported less frequently among Asian participants (15%) as compared to the overall sample (34%), as was the lack of transportation (17% and 34%, respectively) (see Figure 3). Black or African American individuals (39%) reported the belief that screening can cause cancer more frequently than other participants.**
- Being too busy for screening was reported more frequently among Asian (70%) and Hispanic or Latino (47%) individuals than in the overall sample (33%), as was the cost of screening (54% among Asians, 77% among Hispanics and Latinos, and 27% in the overall sample).**
- Lack of transportation was the number one reported barrier in Carroll County (54% as compared to 34% in the overall sample) (see Appendix C).**
- Being too busy was reported most frequently among participants in Montgomery County (47% as compared to 33% in the overall sample).**
- Cost was the most frequently reported barrier for those in Prince George's County (60% as compared to 27% in the overall sample).**
- Those with a 4-year degree reported "too busy" far more often than those without a 4-year degree (53% and 18%, respectively).**
- Those with a 4-year degree reported "cost" far more often than those without a 4-year degree (45% and 14%, respectively).**
- Those with a 4-year degree reported "inconvenient clinic hours" more often than those without a 4-year degree (32% and 13%, respectively) (see Appendix C).**

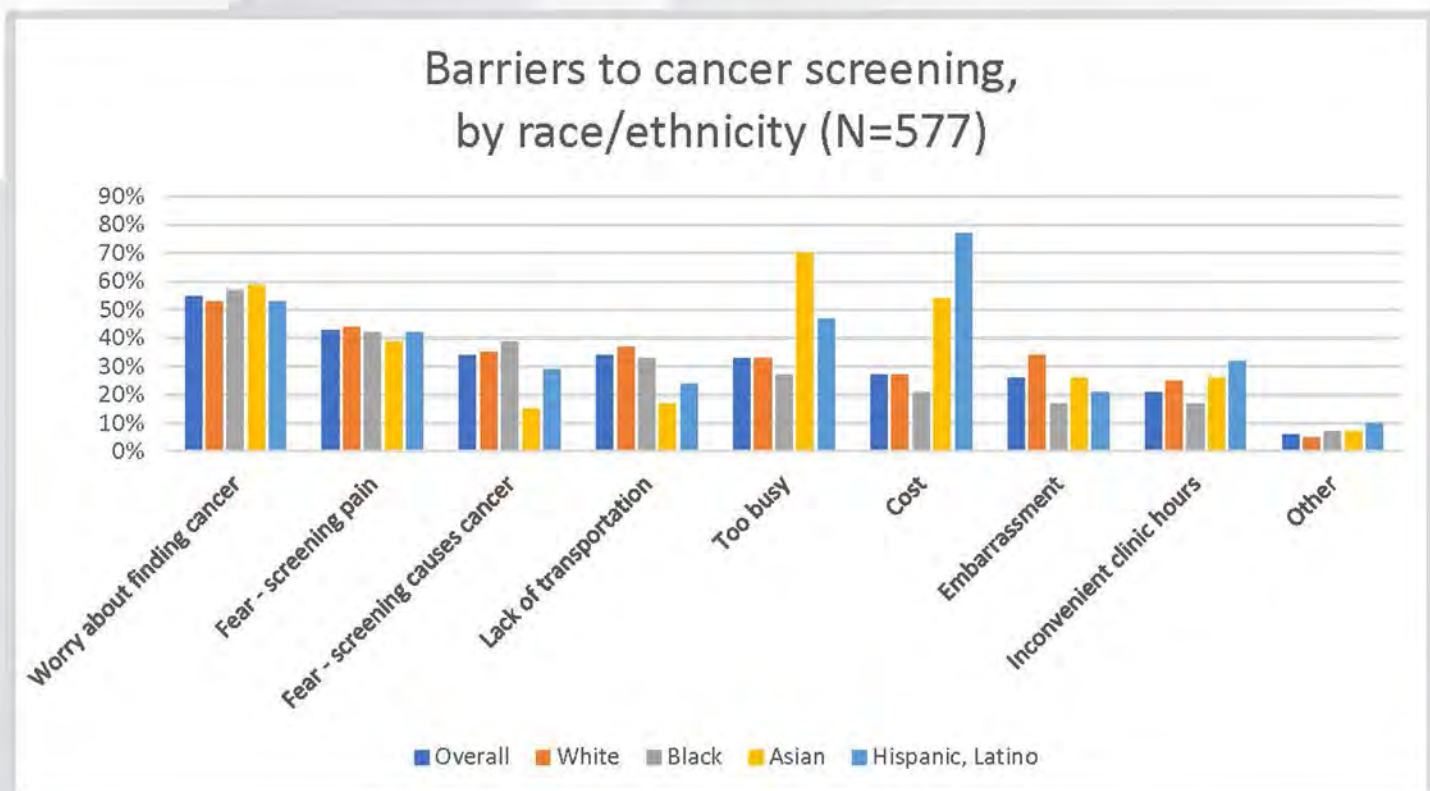


Figure 3: Percentages may not sum to 100, as participants were able to select multiple responses. Additional racial/ethnic categories are not presented due to limited representation (<5%) within the sample.

Survey item: “What is the most important thing people in your community need to know about cancer?”

To help guide cancer educational messaging, an open-ended question, “What is the most important thing that people in your community need to know about cancer?”, was included in the survey. Among the responses written in, prevention (e.g., “Cancer, as with most diseases can be abated if we take care of ourselves. This includes but, is not limited to eating properly, exercising, reducing stress, not smoking, and doing all things in moderation.”) was often a key idea presented (45%). General cancer knowledge and facts relating to symptoms, risks, and treatments (e.g., “People need to know the ‘leading causes, signs/symptoms, treatments, and links to cancer.’”) were also reported as a focal point for cancer messaging (25%), as were cancer screening and early detection (21%). Demographic highlights include:

- Asian, as well as Hispanic and Latino participants were less likely to emphasize prevention in their responses (24% and 18%, respectively), relative to their Black (42%) and White (49%) counterparts (see Figure 4).
- Asian and Hispanic/Latino participants more commonly reported the importance of communicating screening information (37% and 39%, respectively) as compared to the overall sample (21%).
- Hispanic and Latino participants emphasized that cancer is treatable (24%), and a need for information on cancer resources (16%), more often than was presented in the overall sample (11% and 4%, respectively).
- Responses to this item were more consistent across county than by race, though notably, participants in Prince George’s County emphasized screening and early detection information (46% as compared to 21% in the overall sample) and relaying information that cancer is treatable (40% as compared to 11% in the overall sample) (see Appendix C).
- Reports of prevention were much less frequent among those with a college degree than those without (28% and 56%, respectively).
- However, reports of screening/early detection were much more frequent among those with a college degree than those without (38% and 9%, respectively) (see Appendix C).

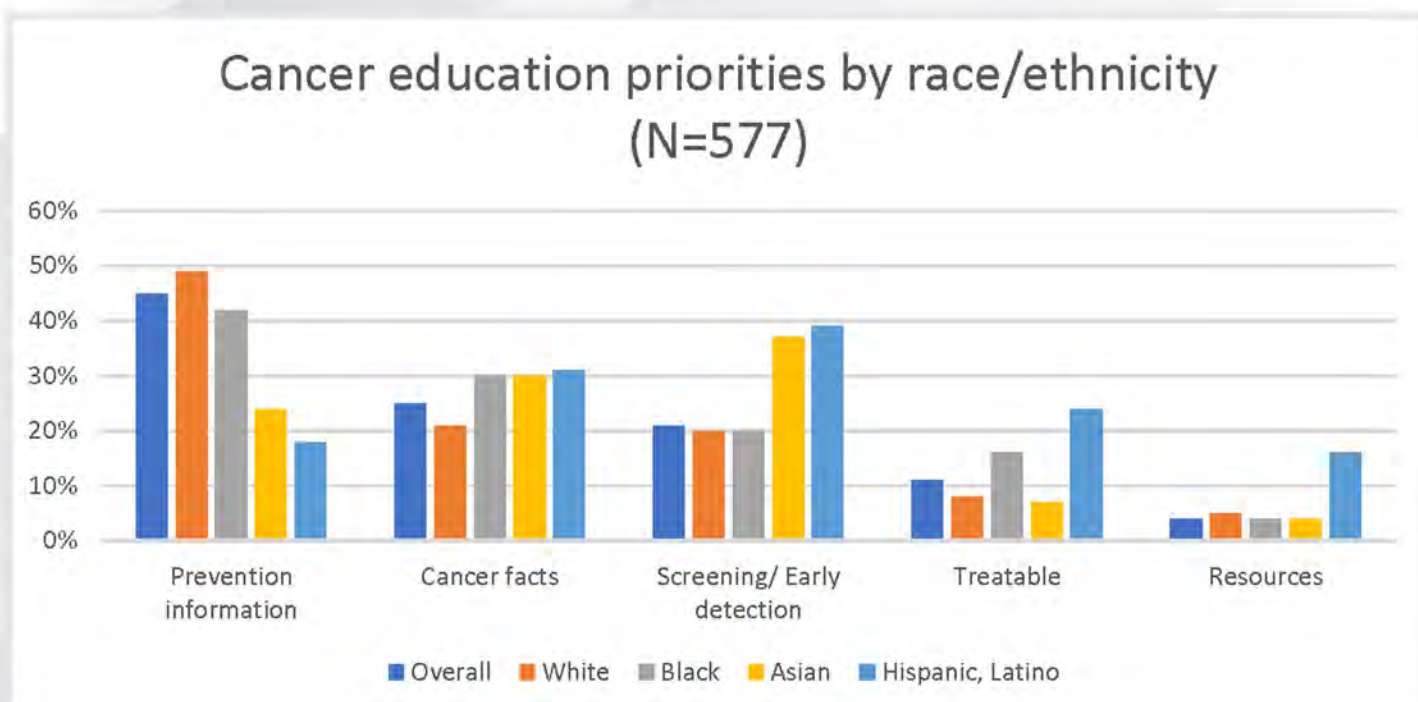


Figure 4: These categories were derived from responses provided to an open-ended item. Percentages may not sum to 100, as participants were able to write in responses falling into multiple categories. Cancer facts include information surrounding cancer symptoms, risks, and treatment options.

COVID-19 Survey Items

As previously mentioned, this survey was administered from August-November 2020, during the height of the COVID-19 pandemic. Participants were asked about the impact of COVID-19 on healthcare seeking. Missed healthcare appointments due to COVID-19 were frequently reported among the participants, as 63% indicated that they had at least one missed or cancelled healthcare appointment due to COVID-19. Participants also reported on what type of medical appointment they had missed due to the pandemic (see Figure 5). This information indicates the COVID-19 pandemic resulted in disruption of participants access to traditional healthcare services.

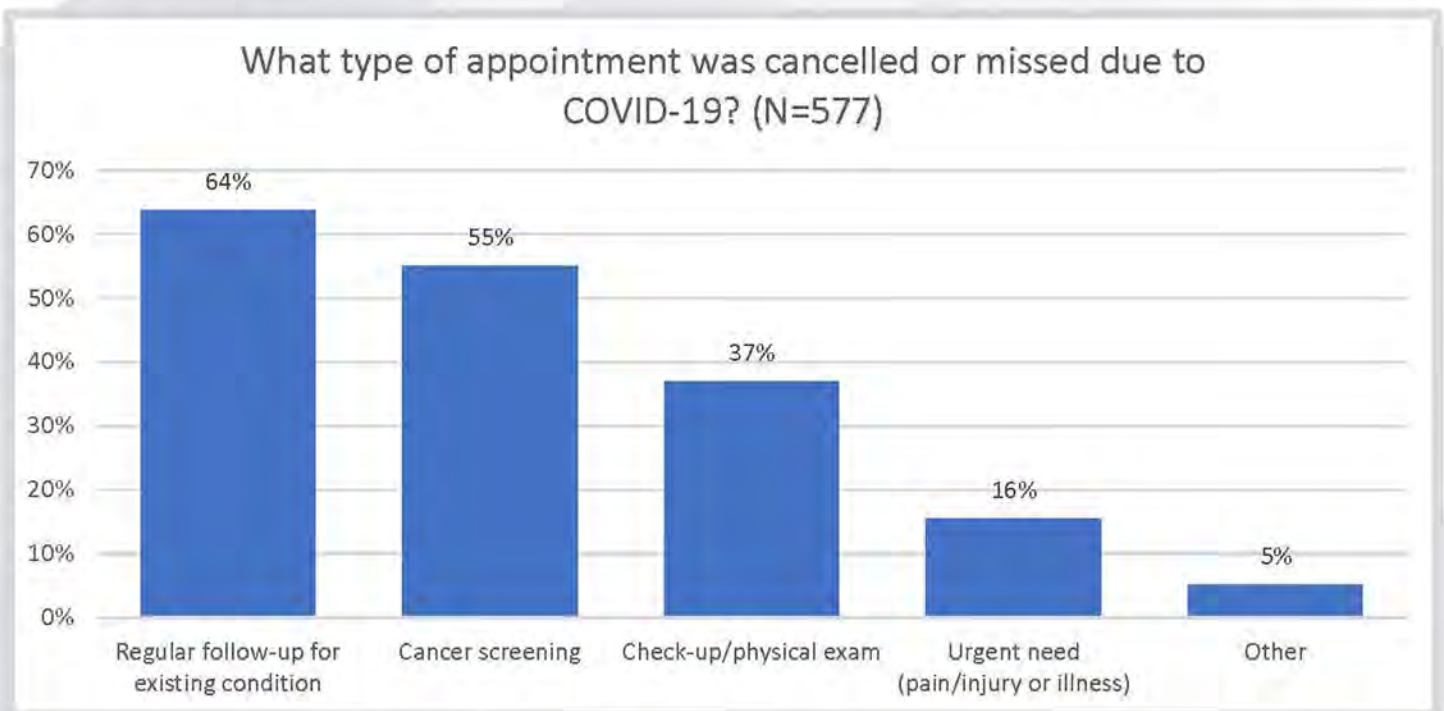


Figure 5: Values presented are only for participants that reported they had missed a healthcare appointment due to COVID-19. Percentages may not sum to 100, as participants were able to select responses from multiple categories. Dental appointments were the most common type of “other” appointment missed.

Follow-up appointments for existing conditions and cancer screening appointments were the types of appointments most frequently missed (64% and 55%, respectively) (see Appendix C). The reported experience of telehealth was high, with 73% reporting that they had previously experienced a healthcare appointment via telehealth (e.g., video or phone call on a phone, tablet or computer, or email visit). Additionally, 67.2% of participants reported that they had previously received text messages from a healthcare provider.

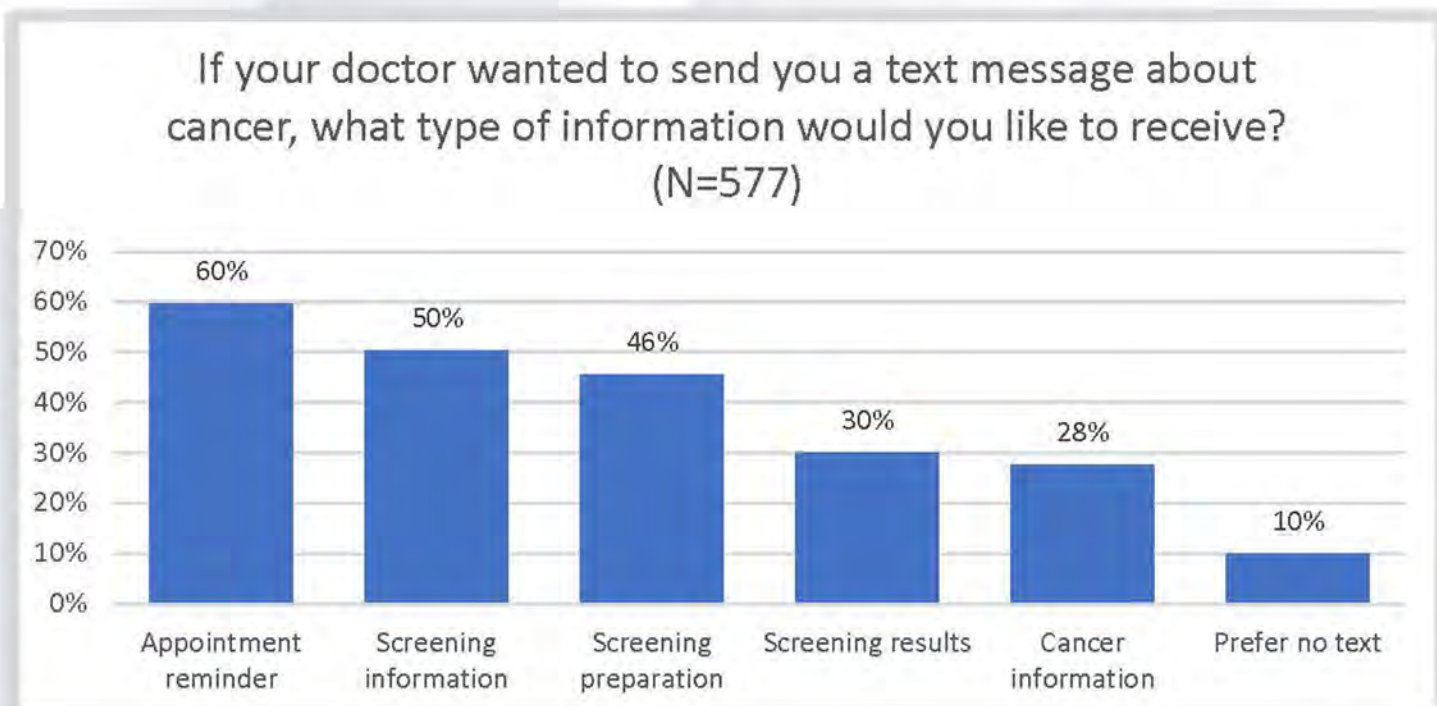


Figure 6: Percentages may not sum to 100, as participants were able to select responses from multiple categories.

When asked what type of information they would like to receive, most participants reported that they would be interested in receiving appointment reminders (60%), and many were interested in information about screening (50%), information about screening preparation (46%), and screening results (30%). Only 10% of participants said they would not like to receive a text message from their healthcare provider. This data will be used in planning future text message-based communications to reach catchment area residents with health-related information.

Openness to Participate in Research

Upon completing the survey, 91% of participants stated that they would be interested in being contacted for future research. Receptiveness to experimental cancer treatment specifically seemed to be lower among participants, as only 40% of participants indicated that they would agree or strongly agree to take part in research to test a new cancer drug if prompted by a provider, while 29% indicated they would not agree.

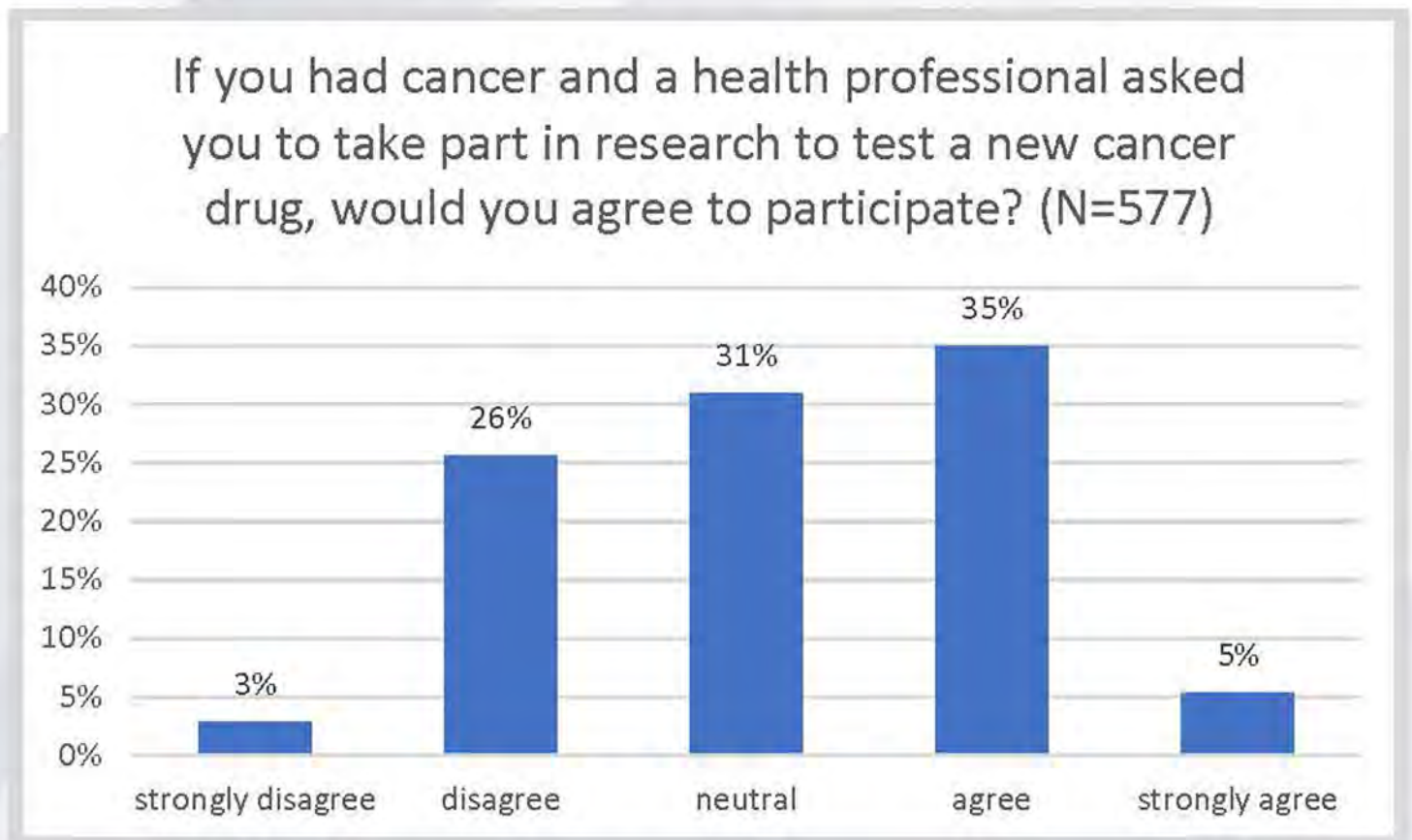


Figure 7: Responses to this item did not vary considerably based on personal history of cancer.

Summary and Significance

Based on these data, prostate, breast, lung, and colorectal cancers are priority cancers from the perspectives of individuals living in the UMGCCC catchment area, with some additional variation by county. These cancers will be important foci for future UMGCCC cancer research and outreach activities in these communities. Fortunately, these priority cancers have established screening tests to detect them early and reduce mortality (e.g., mammograms for breast cancer early detection and colonoscopies for colorectal cancer).

To reduce the impact of these cancers, it is critical to address various cancer risk factors. Notably, prevention was the most reported topic that people in the catchment area felt that they need to know about. Though tobacco use has been on the decline in recent decades, tobacco was still the most frequently reported contributor to cancer in these communities. Obesity, the environment, and lack of physical activity were also commonly reported. These data suggest each of these factors are important targets for activities to promote cancer prevention. Fortunately, tobacco use, obesity, some aspects of the environment, and lack of physical activity are all modifiable factors. Genetics and family history were also frequently cited as cancer contributors present in these communities. While we may not be able to alter genetic risk, less than 10% of all cancers have a major genetic link (National Cancer Institute, 2017). This could indicate an important opportunity for risk communication within these communities, prioritizing risk factors that can be altered and perhaps have a greater impact on cancer risk than family history. This may be especially true in Asian and Hispanic or Latino populations, given the pattern of survey responses. Additionally, lack of cancer information was reported considerably more frequently among Asian and Hispanic or Latino individuals than in the overall sample. This suggests opportunities for culturally targeted cancer educational resources for individuals of these backgrounds.

Fear was the most reported barrier to cancer screening among our participants: fear of finding cancer, fear of screening pain, and fear that screenings may cause cancer. It would seem that combating fear should be a priority for cancer screening interventions in the UMGCCC catchment area. Transportation to screening sites may be of particular importance to certain counties, such as Carroll and Charles. Making screening affordable, easy, and convenient would no doubt help encourage people to get checked, but these items may be of particular importance for Asian and Hispanic or Latino populations based on the current data. Frequent reports of a need to communicate information about cancer screening among Asian and Hispanic or Latino participants support the importance of screening interventions specifically for these populations.

Many aspects of daily life have shifted in the context of the COVID-19 pandemic. Within the climate of the pandemic, many people are unable to attend their healthcare appointments and innovative methods of healthcare delivery, such as telehealth, have increased significance. These data suggest that telehealth is already being used to reach patients. This can be an effective, efficient, and appropriate way to reach those in need when in-person appointments are not necessary, advisable, or otherwise preferable. However, some consideration should be given to patients that may not be able or willing to receive care via the telehealth methods used currently. Exploration of other suitable methods to engage these patients is advised. Finally, participants were generally open to contact about future research, though trials testing cancer drugs seemed to be less appealing.

NEXT STEPS

Based on data collected, UMGCCC will develop strategies to use this information to inform Cancer Center research and outreach activities, as well as a plan for continued assessment of the catchment area over time. The office of Community Outreach and Engagement will further refine and strengthen the bidirectional bridge between community members, Cancer Center leadership, research teams, and medical staff.

The information obtained through the community health survey will meaningfully inform the outreach, education, screening, diagnostic, treatment, and research efforts of the Cancer Center. Importantly, the community health survey fulfills the Cancer Center's Community Outreach and Engagement aim of using community-based data to inform and prioritize research activities while enhancing the ability to employ a bidirectional (community and Cancer Center), data-driven approach in its activities.

Key next steps for the community health survey results are outlined below:

Dissemination

Knowledge gained will be broadly disseminated to stakeholders within both the Cancer Center and the surrounding catchment area community. Internal to the Cancer Center, recipients of the community health survey results will include the executive leadership team, researchers, physicians, and members of the Community Advisory Board. Findings will also be disseminated through CMPGC and UMGCCC-COE web sites. This should facilitate dissemination of the community health survey results to community members.

Implementation

The survey's findings will have immediate relevance and impact for stakeholder groups such as the Cancer Center's Community Health Ambassador team, who will use the information to enhance their community outreach and engagement activities. The community health survey answered both broad questions about cancer knowledge and specific questions from Cancer Center research programs such as Molecular and Structural Biology and Experimental Therapeutics. The findings will be examined by researchers in these programs to inform future research that is reflective of and responsive to community needs. The survey data will be used to align existing Cancer Center resources with identified priority areas and ensure the community is informed of and can readily access these resources. Further, it will be critical to use the survey data to identify future priority areas.

Future Work

The community health survey adds richly to the community-derived data available to inform the many activities of the Cancer Center. This report and future needs assessments will serve as a guide for the Cancer Center and community members alike to develop targeted solutions to improve the overall health and cancer outcomes of Marylanders.

ACKNOWLEDGMENTS

The University of Maryland Marlene and Stewart Greenebaum Comprehensive Cancer Center is one of the top cancer treatment and research centers in the country. In 2016, the National Cancer Institute elevated UMGCCC to its designation as a comprehensive cancer center - one of only 49 in the nation. As part of the University of Maryland Medical Center, UMGCCC offers innovative approaches to diagnosing and treating all types of cancer, conducts cutting-edge research to bring the latest advances in cancer treatment directly to our patients, and provides cancer screening and patient education services.

Data Collection and Assessment Team:

UMGCCC Community Outreach and Engagement Leadership

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Diana Wilson, AAS

Data Collection and Assessment Team

Community Ministry of Prince George's County (CMPGC) is an interfaith 501 (c) (3) nonprofit organization and community health resource that is committed to help meet human service needs, close the educational achievement gap, and reduce health inequities that exist in various communities.

Founded in 1973, Community Ministry of Prince George's County is a leader in community engaged research and community-based participatory research. Since 2010 CMPGC leaders and community engagement associates have collaborated with University of Maryland in the conduct of three (3) major multi-year research projects and multiple other health education and health promotion activities.

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REFERENCE

National Cancer Institute. (2017, October 12). The Genetics of Cancer.
<https://www.cancer.gov/about-cancer/causes-prevention/genetics>.

Suggested Citation

Slade-Martin, P., Woodard, N., Slade, J.L., Ntiri, S.O., Carter, R.L., Knott, C.L., Okwara, L., Caldwell, C.W., Minor, R., and NuQuay, J.S. (2020, December 21). *University of Maryland Greenebaum Comprehensive Cancer Center Community Cancer Needs Assessment*.

APPENDICES

- a. Appendix A - Data collection tool**
- b. Appendix B - Survey promotion materials**
- c. Appendix C - Additional data tables**

APPENDIX A - DATA COLLECTION TOOL – SURVEY



UNIVERSITY *of* MARYLAND
MARLENE AND STEWART GREENEBAUM
COMPREHENSIVE CANCER CENTER

UMGCCC Needs Assessment

Thank you for your interest in completing this University of Maryland Greenebaum Comprehensive Cancer Center survey.

This is a survey for research to understand cancer education needs of people in select counties of Maryland. Your participation in this research involves completing this 5-to-10-minute survey. Participation is voluntary, so you do not have to participate if you do not want to. In the survey, we will ask you some questions about cancer and how you see it. For example, "What keeps people in your community from getting screened (checked) for cancer?" You may or may not have any knowledge about these things, and this is okay. Even if you are not sure of an answer, this is important for us to know.

If you complete this 5-to-10-minute survey and would like to receive a \$15 Amazon electronic gift card, you will have the option to enter your email address. You do not have to enter your email address, but if you do not, you will not receive the electronic gift card. Your email address may be shared with Amazon so you can receive your electronic gift card. To maintain your privacy, your email address will not be linked to your survey responses and no other identifying information will be collected.

Please know that by clicking next and completing this survey, you are stating that you have read and agree to these terms mentioned above. You agree to participate in this survey, and you allow the University of Maryland Greenebaum Comprehensive Cancer Center to use your responses to understand and to report information on cancer needs in Maryland.

Should you have any questions, please contact: marylandhealthsurvey@gmail.com or lead investigator Shana O. Ntiri, MD, MPH; sntiri@som.umaryland.edu; 667-214-1845.

Thank you for agreeing to take part in this survey. First, we need to know a few things about you.

Are you between the ages of 18 and 88?

- ☐ no
- ☐ yes

Which Maryland County do you currently live in?

- ☐ Anne Arundel
- ☐ Baltimore City/County
- ☐ Carroll
- ☐ Charles
- ☐ Frederick
- ☐ Harford
- ☐ Howard
- ☐ Montgomery
- ☐ Prince George's
- ☐ Washington
- ☐ Other, please write in: _____

Are you willing and able to complete this survey on how you see cancer?

- ☐ no
- ☐ yes

We would like to start with some questions about people in your community. Please read each question carefully and give your honest answer.

What types of cancer affect your community most? (please mark all that apply)

- ☐ **Breast cancer**
- ☐ **Prostate cancer**
- ☐ **Lung cancer**
- ☐ **Colon/colorectal cancer**
- ☐ **Skin cancer**
- ☐ **Pancreatic cancer**
- ☐ **Cervical cancer**
- ☐ **Other, please write in:**

What things contribute most to cancer in your community? (please mark all that apply)

- ☐ **Alcohol**
- ☐ **Tobacco (cigarettes, cigars, chewing tobacco, e-cigarettes, vaping etc.)**
- ☐ **Obesity**
- ☐ **Lack of physical activity**
- ☐ **Genetics/family history**
- ☐ **The environment**
- ☐ **Access to healthcare**
- ☐ **Lack of information about cancer**
- ☐ **Other, please write in:**

What keeps people in your community from getting screened (checked) for cancer? (please mark all that apply)

- ☐ Too busy
- ☐ Fear that screening may be painful
- ☐ No transportation
- ☐ Fear that screening may cause cancer
- ☐ Worry about finding cancer
- ☐ Embarrassment
- ☐ Clinic hours do not work with schedule
- ☐ Cost
- ☐ Other, please write in:

What is the most important thing that people in your community need to know about cancer?

Women can help protect themselves against breast cancer by... (please mark all that apply)

- ☐ **Maintaining a healthy weight**
 - ☐ **Limiting alcohol use to no more than one drink per day**
 - ☐ **Exercising regularly**
 - ☐ **Other, please write in:**
-

Now you will see some statements and you should respond with whether or not you agree. Please read each question carefully and give your honest answer.

How much do you agree or disagree with the following statements?

If a man has prostate cancer, he is likely to die from it.

- ☐ **strongly disagree**
- ☐ **disagree**
- ☐ **neutral**
- ☐ **agree**
- ☐ **strongly agree**

I am hesitant to tell my doctor that I smoke when he/she asks me about smoking.

- ☐ **strongly disagree**
- ☐ **disagree**
- ☐ **neutral**
- ☐ **agree**
- ☐ **strongly agree**
- ☐ **N/A, I do not smoke**

If you had cancer and a medical or health professional asked you to take part in a research study to test whether a new drug would treat your cancer, how likely would you agree to participate?

- ☐ **strongly disagree**
- ☐ **disagree**
- ☐ **neutral**
- ☐ **agree**
- ☐ **strongly agree**

C. Difficile is a bacteria that causes an infection of the gut or intestines, leading to diarrhea and fever in an infected person. If a person has cancer and they are infected with C. Difficile, the impact on their health is worse than it would be in a person without cancer.

- ☐ **strongly disagree**
- ☐ **disagree**
- ☐ **neutral**
- ☐ **agree**
- ☐ **strongly agree**
- ☐ **not sure**

You are more than halfway through! Now we would like to ask you about your interactions with healthcare providers. Please read each question carefully and give your honest answer.

Have any of your healthcare appointments (e.g., check-up, blood pressure follow-up, mammogram, or colonoscopy) been cancelled or missed due to COVID-19?

- ☐ **no**
- ☐ **yes**

What type of appointment was cancelled or missed? (please mark all that apply)

- ☐ **Check-up/physical exam**
 - ☐ **Regular follow-up for existing condition like high blood pressure, diabetes, or depression**
 - ☐ **Cancer screening for example a Pap smear, colonoscopy, mammogram**
 - ☐ **Urgent need for example pain/injury or illness**
 - ☐ **Other, please write in:**
-

Have you ever had a healthcare appointment via telehealth (for example with a video call, on a phone, tablet or computer, phone visit or email visit)?

- ☐ **no**
- ☐ **yes**

Have you ever been sent a text message from a doctor's office or a doctor/healthcare provider?

- ☐ **no**
- ☐ **yes**

If your doctor's office wanted to send you a text message about cancer, what type of information would you like to receive via text message? (please mark all that apply)

- ☐ **General information on cancer**
- ☐ **General information on cancer screening exams (e.g., mammograms and colonoscopies)**
- ☐ **General information on how to prepare for cancer screening exams**
- ☐ **An appointment reminder for your cancer screening exam(s)**
- ☐ **Your cancer screening exam results**
- ☐ **I prefer not to receive a text message from a doctor's office**
- ☐ **Other, please write in:**

If you have ever been diagnosed with cancer, please indicate what type(s).

- ☐ **Never been diagnosed with cancer**
- ☐ **Lung**
- ☐ **Colon or colorectal**
- ☐ **Breast**
- ☐ **Cervical**
- ☐ **Prostate**
- ☐ **Melanoma or skin**
- ☐ **Other, please write in:**

Is there anything else you would like to tell us that we did not ask?

In this final section, we would like to get some general information about you. Please read each question carefully and give your honest answer.

How old are you in years? (please write you answer as a number, for example: 47)

What is your gender?

- ☐ **Male**
- ☐ **Female**
- ☐ **Non-binary/third gender**
- ☐ **Prefer not to say**

Are you of Hispanic, Latino, or Spanish origin? (please mark all that apply)

- ☐ **No, not of Hispanic, Latino, or Spanish origin**
 - ☐ **Yes, Mexican, Mexican American, Chicano**
 - ☐ **Yes, Puerto Rican**
 - ☐ **Yes, Cuban**
 - ☐ **Yes, Salvadoran**
 - ☐ **Yes, another origin. Please write in (Example: Dominican, Colombian, Guatemalan):**
-

What is your race? (please mark all that apply)

- ☐ **White**
 - ☐ **Black or African American**
 - ☐ **American Indian or Alaska Native**
 - ☐ **Asian**
 - ☐ **Native Hawaiian or Pacific Islander**
 - ☐ **Another race, please specify**
-

What is the highest level of education you have completed?

- ☐ **some high school or less**
- ☐ **high school or GED**
- ☐ **some college**
- ☐ **2-year technical or trade school**
- ☐ **4-year college degree**
- ☐ **master's degree or higher**

Do you currently work for pay outside of the home?

- ☐ not currently - prior to COVID-19
- ☐ not currently - due to COVID-19
- ☐ receiving disability
- ☐ retired
- ☐ work part time
- ☐ work full time

How did you hear about this survey?

- ☐ Email
 - ☐ Phone Call
 - ☐ TV
 - ☐ Radio
 - ☐ Social Media (Facebook, Instagram, Twitter)
 - ☐ Other - if so, please specify:
-

Thank you very much for taking the time to complete our survey! Please indicate below if you would like to receive the \$15.00 gift card for taking part in the survey. Note that you will be required to supply your email address and this information may be shared with Amazon to receive compensation.

- ☐ no
- ☐ yes

APPENDIX B – SURVEY PROMOTION MATERIALS

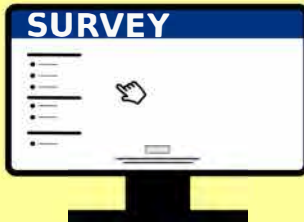


UMGCCC Radio Campaign
<https://vimeo.com/452449838>

UMGCCC Survey Video
<https://vimeo.com/489981541>

APPENDIX B

Your Voice Matters!



The University of Maryland Greenebaum Comprehensive Cancer Center (UMGCCC) is conducting a community health survey.

The information from the survey will help the UMGCCC to better understand the needs of Marylanders living in our service area and will be used to develop future cancer education, outreach, treatment and research activities.



Are you...

- Between the ages of 18 – 88?
- A resident of one of these Maryland counties: *Anne Arundel, Baltimore/Baltimore City, Carroll, Charles, Frederick, Harford, Howard, Montgomery, Prince George's, or Washington?*
- Willing to complete a 10 minute survey about wellness and cancer in your community?



Complete the survey at:
bit.ly/marylandhealthsurvey

For more information contact:
marylandhealthsurvey@gmail.com

For a limited time, the first 50 participants per county, who complete the survey will be offered a \$15 gift card.



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COMPREHENSIVE CANCER CENTER

IRB#

Appendix C – Additional Data Tables

Data Tables by County

Types of cancer affecting communities most, by county											
	Overall	Anne Arundel	Baltimore City/County	Carroll	Charles	Frederick	Harford	Howard	Montgomery	Prince George's	Washington
Prostate	57%	62%	45%	58%	56%	61%	57%	56%	49%	63%	67%
Breast	50%	45%	64%	26%	36%	63%	28%	44%	64%	88%	27%
Lung	42%	34%	61%	34%	32%	52%	41%	39%	45%	40%	37%
Colorectal	41%	47%	45%	42%	32%	45%	32%	47%	34%	35%	46%
Skin	35%	26%	23%	52%	42%	36%	56%	39%	38%	13%	25%
Pancreatic	18%	15%	9%	24%	14%	18%	20%	18%	14%	33%	23%
Cervical	12%	6%	25%	2%	10%	22%	6%	8%	11%	21%	6%
Other	4%	2%	3%	0%	2%	6%	2%	3%	8%	6%	4%
N=577 for the "Overall" Column. Percentages may not sum to 100, as participants were able to select responses from multiple categories. Color scale indicates the order of responses in each county.											

Factors contributing most to cancer, by county											
	Overall	Anne Arundel	Baltimore City/ County	Carroll	Charles	Frederick	Harford	Howard	Montgomery	Prince George's	Washington
Tobacco	65%	74%	63%	64%	62%	70%	70%	61%	66%	62%	56%
Genetics/ Family history	54%	47%	53%	48%	44%	58%	52%	48%	62%	73%	56%
Obesity	47%	42%	48%	44%	42%	48%	48%	52%	47%	48%	52%
Environment	43%	30%	50%	38%	42%	55%	52%	32%	40%	44%	46%
Lack of physical activity	40%	32%	56%	52%	36%	51%	31%	40%	37%	37%	25%
Lacking healthcare	27%	23%	36%	20%	14%	39%	22%	21%	33%	38%	12%
Alcohol	25%	15%	38%	20%	16%	36%	15%	24%	32%	27%	17%
Lacking cancer information	20%	11%	23%	14%	16%	37%	17%	18%	22%	33%	4%
Other	2%	2%	2%	0%	2%	0%	0%	2%	7%	8%	0%
N=577 for the "Overall" Column. Percentages may not sum to 100, as participants were able to select responses from multiple categories. Color scale indicates the order of responses in each county.											

Barriers to cancer screening, by county											
	Overall	Anne Arundel	Baltimore City/ County	Carroll	Charles	Frederick	Harford	Howard	Montgomery	Prince George's	Washington
Worry about finding cancer	55%	53%	69%	52%	60%	66%	59%	39%	44%	60%	54%
Fear of screening pain	43%	42%	48%	32%	38%	55%	46%	39%	44%	42%	37%
Fear that screening may cause cancer	34%	32%	38%	36%	22%	48%	35%	31%	30%	31%	35%
Lack of transportation	34%	36%	27%	54%	40%	33%	44%	29%	21%	29%	35%
Too busy	33%	34%	38%	20%	26%	39%	15%	34%	47%	44%	21%
Cost	27%	21%	23%	12%	14%	40%	20%	21%	34%	60%	17%
Embarrassment	26%	17%	27%	34%	20%	40%	28%	26%	23%	15%	27%
Inconvenient clinic hours	21%	21%	31%	12%	14%	37%	9%	23%	16%	25%	13%
Other	6%	0%	6%	0%	4%	6%	2%	10%	8%	19%	0%
N=577 for the "Overall" Column. Percentages may not sum to 100, as participants were able to select responses from multiple categories. Color scale indicates the order of responses in each county.											

Cancer educational priorities, by county											
	Overall	Anne Arundel	Baltimore City/County	Carroll	Charles	Frederick	Harford	Howard	Montgomery	Prince George's	Washington
Prevention information	45%	45%	50%	62%	52%	45%	50%	44%	36%	15%	52%
Cancer facts	25%	25%	22%	18%	28%	22%	30%	29%	22%	25%	27%
Screening/ Early detection	21%	19%	11%	10%	18%	24%	17%	23%	30%	46%	10%
Treatable	11%	13%	5%	8%	6%	13%	6%	3%	11%	40%	2%
Resources	4%	6%	6%	2%	0%	3%	7%	0%	10%	6%	2%
N=577 for the "Overall" Column. Percentages may not sum to 100, as participants were able to select responses from multiple categories. Color scale indicates the order of responses in each county.											

Missed a medical appointment due to COVID, by county											
	Overall	Anne Arundel	Baltimore City/ County	Carroll	Charles	Frederick	Harford	Howard	Montgomery	Prince George's	Washington
No	37%	26%	42%	40%	34%	37%	28%	21%	48%	56%	33%
Yes	63%	74%	58%	60%	66%	63%	72%	79%	52%	44%	67%
N=577 for the "Overall" Column. Color scale indicates the order of responses in each county.											

Type of medical appointment missed due to COVID, by county											
	Overall	Anne Arundel	Baltimore City/ County	Carroll	Charles	Frederick	Harford	Howard	Montgomery	Prince George's	Washington
Regular follow-up for existing condition	64%	67%	65%	60%	70%	62%	79%	59%	55%	52%	66%
Cancer screening	55%	51%	51%	70%	64%	69%	54%	45%	45%	35%	66%
Check-up/physical exam	37%	33%	65%	33%	21%	48%	13%	39%	39%	57%	26%
Urgent need (pain/injury or illness)	16%	18%	5%	23%	9%	21%	23%	16%	13%	13%	11%
Other	5%	3%	8%	0%	9%	0%	3%	4%	8%	17%	6%
N=365 for the "Overall" column since 212 participants had not had a cancelled appointment. Percentages may not sum to 100, as participants were able to select responses from multiple categories. Color scale indicates the order of responses in each county.											

Ever had a Telehealth appointment, by county											
	Overall	Anne Arundel	Baltimore City/County	Carroll	Charles	Frederick	Harford	Howard	Montgomery	Prince George's	Washington
No	27%	30%	27%	24%	28%	28%	24%	29%	30%	29%	21%
Yes	73%	70%	73%	76%	72%	72%	76%	71%	70%	71%	79%
N=577 for the "Overall" Column. Color scale indicates the order of responses in each county.											

Ever received a text message from a healthcare provider, by county											
	Overall	Anne Arundel	Baltimore City/County	Carroll	Charles	Frederick	Harford	Howard	Montgomery	Prince George's	Washington
No	33%	34%	23%	44%	42%	31%	43%	32%	23%	19%	42%
Yes	67%	66%	77%	56%	58%	69%	57%	68%	77%	81%	58%
N=577 for the "Overall" Column. Color scale indicates the order of responses in each county.											

Interest in text messages from healthcare providers, by county											
	Overall	Anne Arundel	Baltimore City/County	Carroll	Charles	Frederick	Harford	Howard	Montgomery	Prince George's	Washington
Appointment reminder	60%	58%	58%	68%	58%	66%	52%	63%	59%	63%	52%
Screening information	50%	42%	58%	54%	36%	60%	48%	48%	49%	44%	60%
Screening preparation	46%	47%	53%	42%	58%	46%	52%	35%	48%	35%	38%
Screening results	30%	28%	33%	22%	24%	33%	35%	26%	33%	29%	35%
Cancer information	28%	15%	44%	18%	24%	37%	13%	23%	38%	33%	23%
Prefer no text	10%	8%	6%	4%	10%	16%	7%	15%	15%	10%	4%
N=577 for the "Overall" Column. Percentages may not sum to 100, as participants were able to select responses from multiple categories. Color scale indicates the order of responses in each county.											

Data Tables by Education

Types of cancer affecting communities most, by education			
	Overall	No college degree	4-year degree
Prostate	57%	60%	53%
Breast	50%	32%	75%
Lung	42%	38%	48%
Colorectal	41%	39%	43%
Skin	35%	38%	30%
Pancreatic	18%	19%	17%
Cervical	12%	6%	21%
Other	4%	2%	7%
N=577 for the "Overall" Column. Percentages may not sum to 100, as participants were able to select responses from multiple categories. Color scale indicates the order of responses by education category.			

Factors contributing most to cancer, by education			
	Overall	No college degree	4-year degree
Tobacco	65%	64%	65%
Genetics/ Family history	54%	46%	67%
Obesity	47%	43%	53%
Environment	43%	43%	43%
Lack of physical activity	40%	37%	45%
Lacking healthcare	27%	15%	42%
Alcohol	25%	17%	35%
Lacking cancer information	20%	10%	35%
Other	2%	1%	4%
N=577 for the "Overall" Column. Percentages may not sum to 100, as participants were able to select responses from multiple categories. Color scale indicates the order of responses by education category.			

Barriers to cancer screening, by education			
	Overall	No college degree	4-year degree
Worry about finding cancer	55%	53%	59%
Fear of screening pain	43%	46%	38%
Fear that screening may cause cancer	34%	38%	28%
Lack of transportation	34%	39%	26%
Too busy	33%	18%	53%
Cost	27%	14%	45%
Embarrassment	26%	24%	29%
Inconvenient clinic hours	21%	13%	32%
Other	6%	2%	10%
N=577 for the “Overall” Column. Percentages may not sum to 100, as participants were able to select responses from multiple categories. Color scale indicates the order of responses by education category.			

Cancer educational priorities, by education			
	Overall	No college degree	4-year degree
Prevention information	45%	56%	28%
Cancer facts	25%	25%	23%
Screening/ Early detection	21%	9%	38%
Treatable	11%	6%	17%
Resources	4%	1%	8%
N=577 for the “Overall” Column. Percentages may not sum to 100, as participants were able to select responses from multiple categories. Color scale indicates the order of responses by education category.			

Missed a medical appointment due to COVID, by education			
	Overall	No college degree	4-year degree
No	37%	30%	46%
Yes	63%	70%	54%
N=577 for the “Overall” Column. Color scale indicates the order of responses by education category.			

Type of medical appointment missed due to COVID, by education			
	Overall	No college degree	4-year degree
Regular follow-up for existing condition	64%	74%	46%
Cancer screening	55%	62%	42%
Check-up/physical exam	37%	24%	61%
Urgent need (pain/injury or illness)	16%	20%	8%
Other	5%	1%	13%
N=365 for the “Overall” column since 212 participants had not had a cancelled appointment. Percentages may not sum to 100, as participants were able to select responses from multiple categories. Color scale indicates the order of responses by education category.			

Ever had a Telehealth appointment, by education			
	Overall	No college degree	4-year degree
No	27%	22%	34%
Yes	73%	78%	66%
N=577 for the “Overall” Column. Color scale indicates the order of responses by education category.			

Ever received a text message from a healthcare provider, by education			
	Overall	No college degree	4-year degree
No	33%	42%	20%
Yes	67%	58%	80%
N=577 for the “Overall” Column. Color scale indicates the order of responses by education category.			

Interest in text messages from healthcare providers, by education			
	Overall	No college degree	4-year degree
Appointment reminder	60%	53%	69%
Screening information	50%	54%	45%
Screening preparation	46%	48%	43%
Screening results	30%	33%	26%
Cancer information	28%	22%	35%
Prefer no text	10%	7%	13%
N=577 for the “Overall” Column. Percentages may not sum to 100, as participants were able to select responses from multiple categories. Color scale indicates the order of responses by education category.			

Additional Items

Women can protect themselves against breast cancer by:	
Limiting alcohol use (no more than one drink per day)	73.8%
Maintaining healthy weight	71.4%
Exercising regularly	67.1%
Other	13.5%
N=577. Percentages may not sum to 100, as participants were able to select responses from multiple categories.	
If a man has prostate cancer, he is likely to die from it.	
strongly disagree	6.8%
disagree	36.4%
neutral	26.9%
Agree	25.8%
strongly agree	4.2%
N=577.	

I am hesitant to tell my doctor that I smoke when he/she asks me about smoking.		
	Valid Percent	Total Percent
strongly disagree	12.6	8.7
disagree	23.2	15.9
neutral	22.2	15.3
agree	35.4	24.3
strongly agree	6.6	4.5
Total	100.0	68.6
N/A, I do not smoke		31.4
Full Total		100
N=577. N=396 for valid percentage column to exclude 181 nonsmokers.		

If you had cancer and a health professional asked you to take part in a research study to test a new cancer drug, would you agree to participate?	
strongly disagree	2.9%
disagree	25.6%
neutral	31.0%
agree	35.0%
strongly agree	5.4%
N=577.	

If a person has cancer and they are infected with C. Difficile, the impact on their health is worse than it would be in a person without cancer.		
	Valid Percent	Total Percent
strongly disagree	1.6%	1.4
disagree	15.7%	13.9
neutral	16.5%	14.6
agree	49.2%	43.5
strongly agree	17.1%	15.1
Total	100.0%	88.5
not sure		11.6
Full Total		100
N=577. N=510 for valid percentage column to exclude 67 “not sure” responses.		



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