Public Health, Energy & Climate Change

A Survey of Maryland Residents | Summer 2013

MARYLAND
Department of Health and Mental Hygiene

GEORGE MASON UNIVERSITY

Investigators:

Karen Akerlof, PhD
Edward W. Maibach, MPH, PhD
George Mason University
Center for Climate Change Communication
4400 University Dr., MS 6A8
Fairfax, VA 22030
kakerlof@gmu.edu, (703) 993-6667
emaibach@gmu.edu, (703) 993-1587

Clifford S. Mitchell, MS, MD, MPH
Maryland Department of Health
   and Mental Hygiene
201 W. Preston Street, PHPA - Room 327
Baltimore, MD 21201

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Suggested citation:
Akerlof, K., Maibach, E. W., & Mitchell, C. S. (2013). Public health, energy and climate change: A survey of Maryland residents, summer 2013. Fairfax, VA: Center for Climate Change Communication, George Mason University; Baltimore, MD: Maryland Department of Health and Mental Hygiene.

July, 2013

The Department of Health and Mental Hygiene, together with the George Mason University, is pleased to present this report on Maryland attitudes towards public health, energy, and climate change. The survey, funded by the Town Creek Foundation, is the first comprehensive survey of Maryland residents to find out what they think about the public health impacts of climate change. The survey was conducted, in part, to help the Department understand public attitudes about health and the environment, and particularly about two important environmental changes occurring today: climate change and changes in the energy picture of the State and nation.

The Department of Health and Mental Hygiene is participating actively in the development of the State's response to climate change. The results of this survey are timely because they provide insight for policy makers, public health officials, and the public about Maryland's response to climate change and energy needs. As you review the findings, you will see that Marylanders are already taking personal action to prepare for extreme weather events. You will also find that many people identify threats to health as one of the most important consequences of climate change.

The Department wishes to thank the Town Creek Foundation and the investigators at George Mason University for their support and efforts in carrying out this survey. The Department will use the results to help guide its efforts to support the State's climate change strategy. On behalf of the Department, thank you again for taking the time to read the report and provide feedback to the Department.

Sincerely,

Joshua M. Sharfstein, M.D.
Secretary

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Executive Summary

Air pollution is viewed as the top personal health risk
- Air pollution – closely followed by chemicals, flu epidemics, insect-borne disease, and obesity – stands at the top of risks that Marylanders say pose a significant threat to their health. Seventy percent of state residents say air pollution is a major or moderate risk to their health.

Obesity, storms and climate change are seen as increasing problems in communities
- More than half (53%) of Marylanders say obesity has become a more prominent issue in recent years in their community.

- About half of Maryland's adults say that violent storms (52%) and climate change (48%) are becoming more common health problems in their communities.

Extreme weather is seen by most as a health risk
- A large majority of Marylanders (79%) say that over the past year, extreme weather posed a health risk to people in their community, with 38% describing the threat as moderate or major.

Protecting water and human health are top priorities
- Large majorities of Marylanders feel their state and local government should make a high priority of protecting public water supplies (86%) and people's health (80%) from extreme weather events and other environmental threats.

Renewable energy sources seen as healthier
- Coal, oil and nuclear power are seen by Marylanders as the sources of electrical energy that are most damaging to people's health; more than half of survey respondents (68%, 59%, and 58%, respectively) rate these sources of energy as somewhat or very harmful to people's health.

- Renewables like solar and wind get high ratings as being "not at all harmful" (solar, 60%; offshore wind, 60%; land-based wind, 58%).

- There is a substantial amount of public uncertainty about whether or not most sources of electrical energy are harmful to peoples' health, especially natural gas. Approximately a third or more of residents say they don't know whether natural gas – extracted from hydraulic fracturing ("fracking") (31%), or other sources (34%) – is harmful, although natural gas from fracking is more likely to be seen as very harmful (17%) than other sources of natural gas (5%).

A majority say that Americans are already harmed by climate change

- More than half of Marylanders (52%) say that people in the United States are already being harmed by climate change. This percentage is much larger than that of Americans nationally, only 34% of whom said in April 2013 that people in the U.S. are being harmed now[1].

- More than half of state residents point to respiratory problems (68%), injuries from storms or other extreme weather events (58%), and heat stroke (52%) as health problems that will become more common in the state because of climate change.

Those most vulnerable to climate harm are somewhat more likely to feel at risk

- Those residents with more than one medical condition that increases their vulnerability to the health effects of climate change were more likely to say they were very vulnerable (22%), as compared to those people with only one predisposing medical condition (14%) and those who have no identified predisposing medical conditions (6%).

Study methodology

The survey was mailed to 6,401 households in the state of Maryland, randomly selected from within each of four regions of the state[2]. We sampled at the regional level to ensure the final data was generalizable to these distinctly different geographic and cultural areas of the state, as well as to the state as a whole, weighting the data at both the state and regional levels in accordance with U.S. Census population distributions. The survey was fielded from March 28 to June 4, 2013 with a response rate of 38%. The unweighted sample margin of error is +/- 2 percentage points at the 95% confidence interval for the state and less than +/- 5 percentage points for each region. (See study methodology, page 15). An additional report from this survey – examining Marylanders' attitudes, behaviors, and policy preferences regarding energy and climate change – will be released later this month.

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[1] Leiserowitz, A., Maibach, E., Roser-Renouf, C., Feinberg, G., & Howe, P. (2013) *Climate change in the American mind: Americans' global warming beliefs and attitudes in April, 2013.* Yale University and George Mason University. New Haven, CT: Yale Project on Climate Change Communication.

[2] **Western Region** – Allegany, Frederick, Garrett and Washington counties; **Central Region** – Baltimore, Carroll, Cecil, Harford, Howard, Montgomery counties and Baltimore City; **Southern Region** – Anne Arundel, Calvert, Charles, Prince George's and St. Mary's counties; **Eastern Region** – Caroline, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico and Worcester counties.

1. Air pollution is viewed as top personal health risk

Air pollution – closely followed by chemicals, flu epidemics, insect-borne disease, and obesity – stands at the top of risks that Marylanders say pose a significant threat to their personal health. Seventy percent of state residents say air pollution is a major or moderate risk to their health, with those in the urban corridor between Washington, D.C. and Baltimore citing it the most frequently as a major health risk (35% versus 25% or less in other regions)[3]. Exposure to chemicals, including pesticides, falls just behind air pollution (67% major/moderate risk) in Maryland residents' health concerns, followed by flu epidemics and insect-borne diseases (62%), and obesity (56%). (Figure 1)

Climate change ranks eighth on the list of personal health risks that Marylanders are concerned about, but many of the other health threats that residents said were bigger risks – including air pollution, insect-borne diseases, violent storms, and polluted drinking water – can be caused or made worse by climate change.[4] For example, higher temperatures increase ground-level ozone pollution, which in turn impairs lung function, and changes in the region's climate can create conditions conducive to new insect-borne diseases.

Obesity, storms and climate change are seen as increasing problems in communities
Obesity is one of the highest personal health concerns for state residents, and it is the health threat most likely to be seen as becoming more of a problem in Maryland's communities. More than half (53%) of Marylanders say obesity has become a more of a problem in recent years in their area. (Figure 2)

People in Maryland say that violent storms and climate change are also on the rise as health problems in their community. Fifty-two percent of residents say storms are becoming a more serious health problem, and 48% say climate change is increasingly a risk. Concerns over both are highest in the Southern region (59% violent storms, other regions, 42-50%; 53% climate change, other regions 43-47%).

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[3] **Western Region** – Allegany, Frederick, Garrett and Washington counties; **Central Region** – Baltimore, Carroll, Cecil, Harford, Howard, Montgomery counties and Baltimore City; **Southern Region** – Anne Arundel, Calvert, Charles, Prince George's and St. Mary's counties; **Eastern Region** – Caroline, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico and Worcester counties.

[4] Balbus, J., Frumkin, H., Hayden, M., Hess, J., McGeehin, M., & Sheats, N. (2013). Chapter 9. Human health. Draft National Climate Assessment. National Climate Assessment and Development Advisory Committee. U.S. Global Change Research Program. Retrieved from http://ncadac.globalchange.gov/

Figure 1 | *Obesity top cited major health risk*

Legend: ■ Major risk ■ Moderate risk ■ Minor risk □ No risk at all ■ Don't know

Risk	Major risk	Moderate risk	Minor risk	No risk at all	Don't know
Air pollution	31%	39%	24%	5%	
Exposure to chemicals*	32%	35%	23%	9%	
Flu epidemics	29%	33%	30%	6%	
Insect-borne diseases**	26%	36%	27%	9%	
Obesity	37%	19%	20%	23%	
Violent storms	20%	34%	36%	8%	
Polluted drinking water	33%	21%	29%	16%	
Climate change	20%	32%	28%	17%	
Heat waves	16%	35%	30%	15%	
Second-hand smoke from tobacco	29%	22%	27%	20%	
Flooding	13%	19%	40%	25%	

Below is a list of potential risks to people's health. How much of a risk do you feel each currently poses to your own health?
(Unweighted base 2,126)

Figure 2 | *Obesity, diseases, environmental changes increasing problems in communities*

Legend: ■ Much more ■ Somewhat more □ Remained the same ▨ Somewhat less ▨ Much less ■ Don't know

Risk	Much more	Somewhat more	Remained the same	Somewhat less	Much less	Don't know
Obesity	25%	28%	29%	6%	7%	5%
Violent storms	13%	38%	34%	5%	5%	4%
Climate change	15%	34%	33%	6%	8%	5%
Flu epidemics	15%	26%	38%	10%	5%	6%
Insect-borne diseases**	10%	26%	39%	11%	8%	7%
Heat waves	9%	27%	46%	6%	6%	6%
Air pollution	10%	26%	43%	11%	6%	6%
Exposure to chemicals*	9%	19%	42%	14%	8%	9%
Polluted drinking water	10%	17%	46%	10%	8%	10%
Flooding	6%	15%	52%	9%	11%	8%
Second-hand smoke from tobacco	8%	9%	32%	22%	26%	4%

For each of these potential health risks, would you say it has become more or less of a problem over the past several years in your community? *(Unweighted base 2,126)*

* Exposure to chemicals, including pesticides, in food and other products; ** Insect-borne diseases, like West Nile virus and Lyme disease

2. Extreme weather is seen by many as a health risk

The survey defined extreme weather in the following way: "By 'extreme weather' we mean unusually heavy rain, wind, snow storms, extreme heat and cold spells, and droughts." The vast majority of Marylanders say that over the past year, extreme weather posed a health risk to people in their community (79%), with 38% describing the threat as moderate or major. Respondents in the Central and Eastern portions of the state were more likely to see extreme weather as posing a moderate or major health risk – 41% and 45%, respectively – than were respondents in the Western and Southern parts of the state (36% and 30%). (Figure 3)

About one in five state residents say that extreme weather has caused human injuries/deaths to become somewhat more common (14%) or much more common (5%) in their community, while more than one in five (23%) say they don't know. Residents in Southern and Eastern Maryland are less likely to feel that extreme weather is leading to more human injuries/deaths (16% and 17%, respectively), and residents in Western and Central Maryland are more likely to see increasing health consequences (21%). (Figure 4)

A majority of Marylanders stock their homes in preparation
More than half of state residents say that they have stocked their homes with a first aid kit (65%), an emergency supply of water (61%), and a supply of food (56%) in preparation for extreme weather events. Relatively few have developed plans to evacuate their home (28%), and even fewer say they have actually evacuated their home as the result of extreme weather (15%). A small – but in some ways, surprisingly large – minority of respondents have purchased a home generator to cope with loss of electric power (22%). (Figure 5)

Water and human health are top priorities
Large majorities of Marylanders feel their state and local government should make a high priority of protecting public water supplies (86%) and people's health (80%) from extreme weather events and other environmental threats. Generally, protecting public and economic resources – not only water, but roads and bridges (71%), sewer (68%), agriculture (59%), and forests/wildlife (45%) – ranked highly as priorities for government action, higher than privately owned property (private wells/septic, 40%; privately owned land/buildings, 26%), and historical sites (23%). (Figure 6)

Figure 3 | *Community health risks posed by extreme weather*
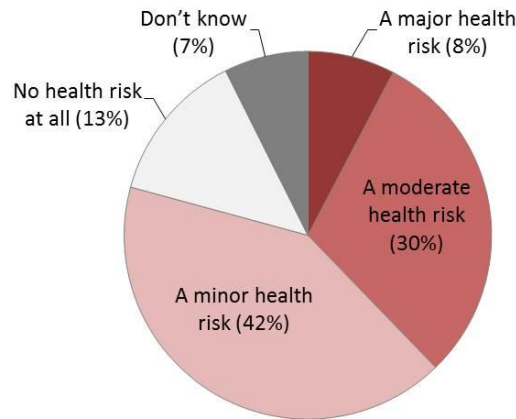
Over the past year, how much of a health risk was extreme weather for people in your community? *(Unweighted base 2,126)*

Figure 4 | *Changes in community harms from extreme weather*
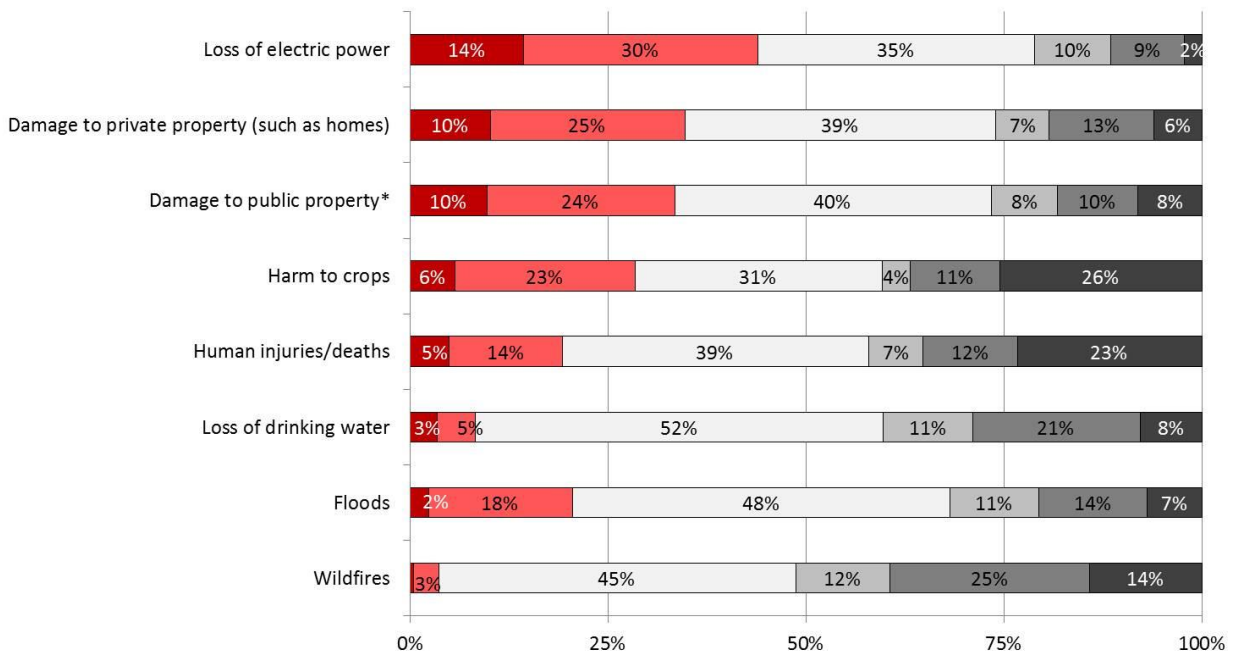
Have extreme weather events in your community made each of the following more or less common over the past several years, or have they stayed about the same? *(Unweighted base 2,126)*

*Damage to public property (such as roads, government buildings, and parks)

Figure 5 | *Extreme weather preparedness and response actions*
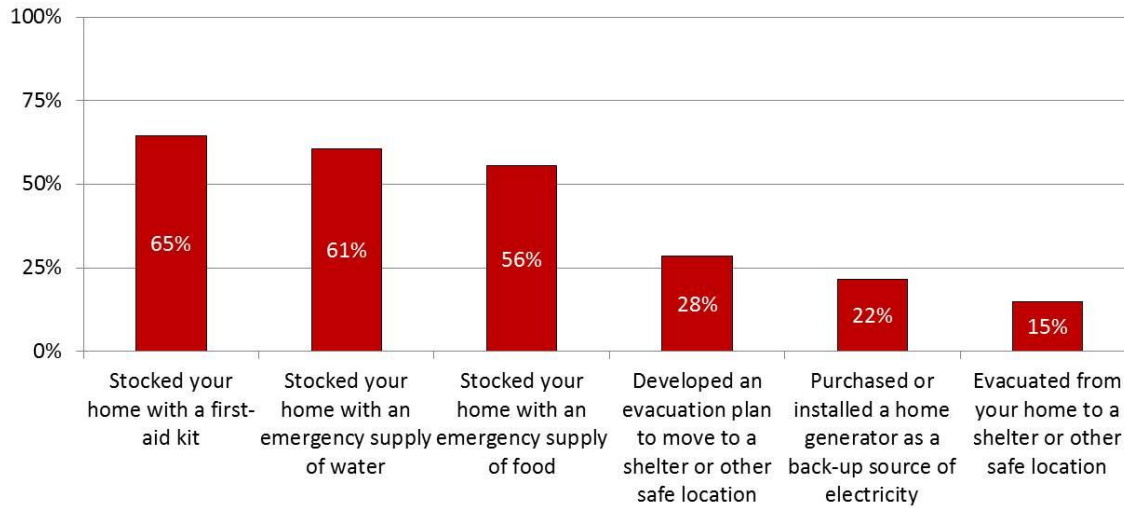
What actions — if any — have you taken to prepare for or respond to extreme weather events? *(Unweighted base 2,126)*

Figure 6 | *Prioritizing protection of public and private resources*
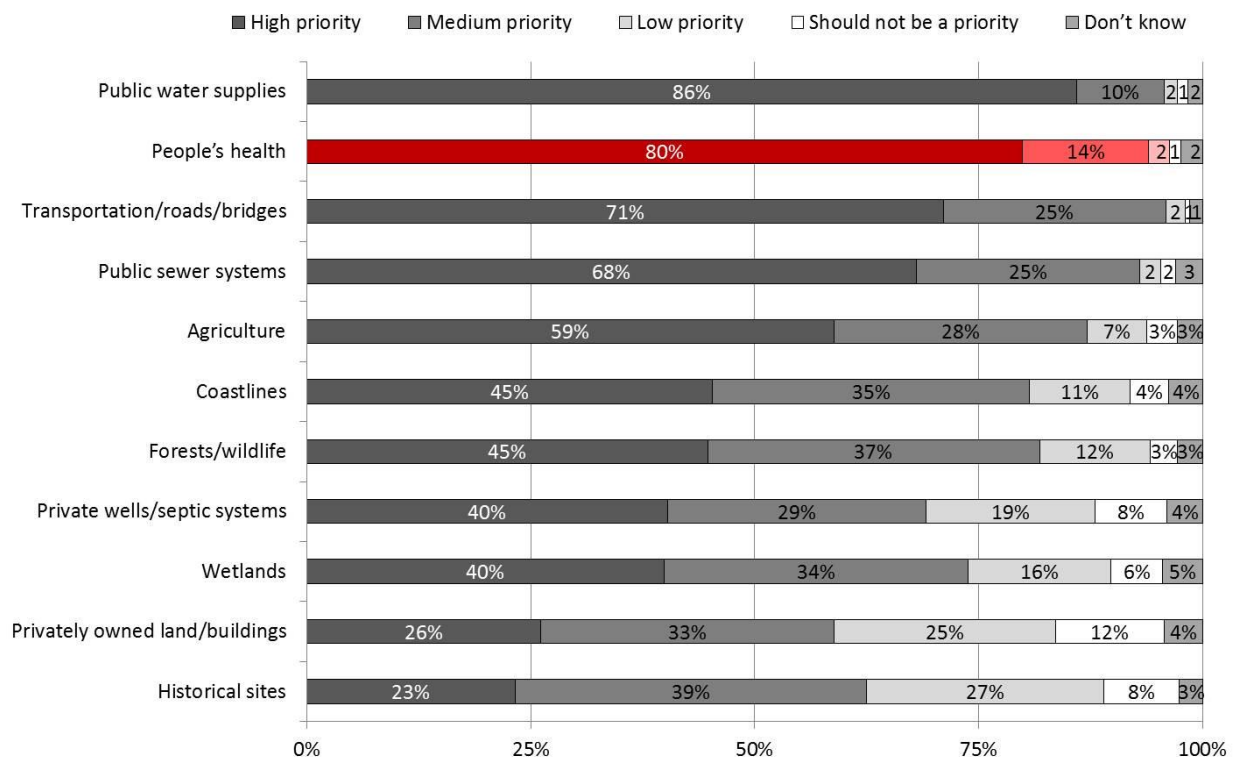
How high of a priority, if at all, should protecting each of the following from extreme weather and other environmental threats be for your state and local governments? *(Unweighted base 2,126)*

3. Renewable energy sources are seen as healthier

Coal, oil and nuclear power are seen by Marylanders as the sources of electrical energy that are most damaging to people's health; more than half of survey respondents (68%, 59%, and 58%, respectively) rate these sources of energy as somewhat or very harmful to people's health. Natural gas "fracked" in Maryland is seen as harmful to health by 44% of Marylanders, and other sources of natural gas as seen as harmful by 29%. Conversely, very few Marylanders rate renewables like solar and wind get high ratings as harmful; most rate them as "not at all harmful" (solar, 60%; offshore wind, 60%; land-based wind, 58%). (Figure 7)

There is a substantial amount of public uncertainty about whether all of these sources of electrical energy cause harm to peoples' health, especially natural gas. Approximately a third or more of residents say they don't know whether natural gas – extracted from hydraulic fracturing ("fracking") (31%), or other sources (34%) – is harmful, although natural gas from fracking is more likely to be seen as very harmful (17%) than other sources of natural gas (5%). Wood fuel and switchgrass are the most unknown of the energy sources, with 39% saying they don't know its health risks.

The Western region of the state is different in some potentially important ways. In the Western region, as compared to other regions, a higher proportion of respondents say they don't yet know if most of these sources of electrical energy are harmful to health, or not. People in Western Maryland are also much less likely to see nuclear energy as somewhat or very harmful to health (44% as compared to 57% to 61% elsewhere in the state).

Figure 7 | *Health risks from sources of electrical energy*
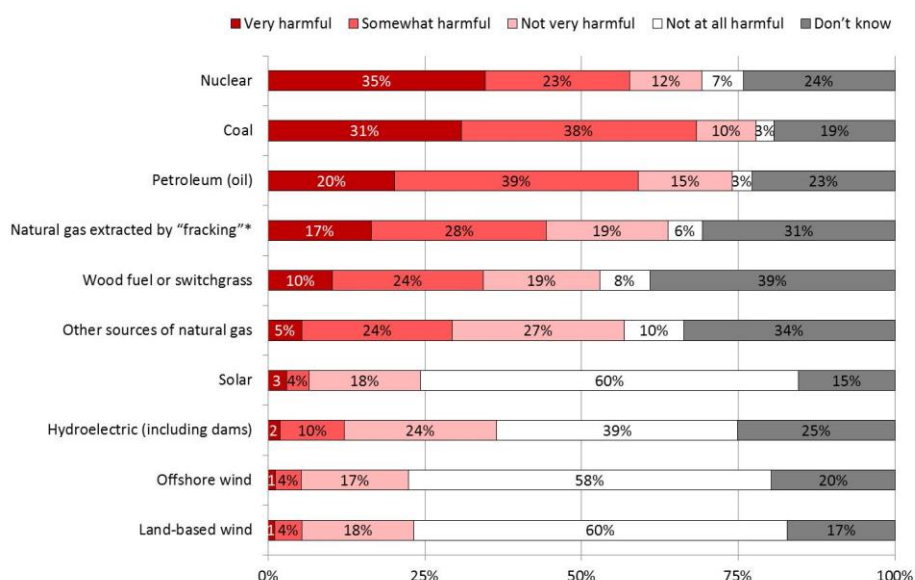
Please rate each of the following sources of electrical energy in terms of how harmful they are to people's health. (*Unweighted base 2,126*)
*Natural gas extracted by hydraulic fracturing ("fracking") in Maryland

4. Majority say Americans already harmed by climate change

More than half of Marylanders (52%) say that people in the United States are being harmed by climate change now. (Figure 8) This percentage is much larger than that of Americans nationally, only 34% of whom said in April 2013 that people in the U.S. are currently harmed[5]. As compared to Americans as a whole, Marylanders are somewhat more likely to think that they personally will be harmed a moderate amount – or a great deal – by climate change (40% nationally versus 48% of Marylanders), and they are even more likely than the U.S. public as a whole to say that future generations of people will be at least moderately harmed from climate change (76% vs. 63%). (Figure 9)

Agriculture and public health are identified as most likely harms from climate change
When given a list of community resources, and asked to identify which "may be harmed by climate change in the next several years," agriculture (70%), people's health (67%), coastlines (64%), forests/wildlife (62%) and wetlands (59%) were the resources most commonly identified. Fewer than 12% of Marylanders say that there are no local risks from climate change. (Figure 10)

More than half of Marylanders point to respiratory problems (68%), injuries from storms or other extreme weather events (58%), and heat stroke (52%) as health problems that will become more common in the state because of climate change. Fewer – although still large minorities – feel that climate change will increase infectious diseases such as West Nile virus (41%). Many people in the state may be confusing the health implications of the "ozone hole" with climate change when they identify cancer and sunburn as likely health problems from climate change.[6]

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[5] Leiserowitz, A., Maibach, E., Roser-Renouf, C., Feinberg, G., & Howe, P. (2013) *Climate change in the American mind: Americans' global warming beliefs and attitudes in April, 2013.* Yale University and George Mason University. New Haven, CT: Yale Project on Climate Change Communication.

[6] Akerlof, K., DeBono, R., Berry, P., Leiserowitz, A., Roser-Renouf, C., Clarke, K.-L., … Maibach, E. W. (2010). Public perceptions of climate change as a human health risk: Surveys of the United States, Canada and Malta. *International Journal of Environmental Research and Public Health, 7*(6), 2559–2606.

Figure 8 | *When climate change will harm people in U.S.*

Never (13%)
In 100 years (6%)
In 50 years (6%)
In 25 years (10%)
In 10 years (13%)
They are being harmed now (52%)
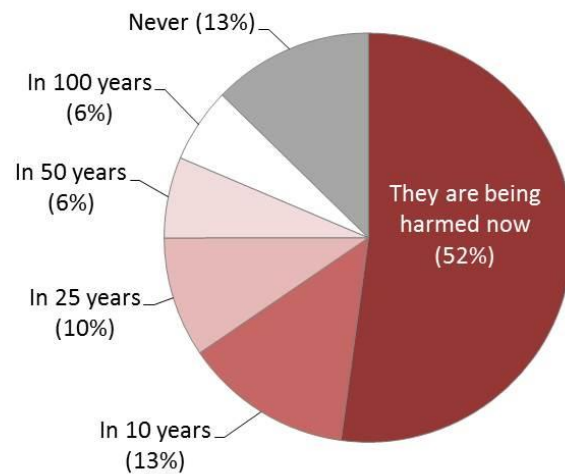
When do you think climate change will start to harm people in the United States? *(Unweighted base 2,126)*

Figure 9 | *Perceived harm from climate change, personal vs. future generations*

you personally

Don't know (11%)
A great deal (16%)
Not at all (19%)
A moderate amount (32%)
Only a little (22%)

future generations of people

Don't know 9%
Not at all (7%)
Only a little (8%)
A great deal (59%)
A moderate amount 17%
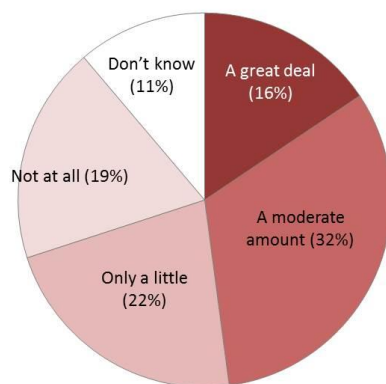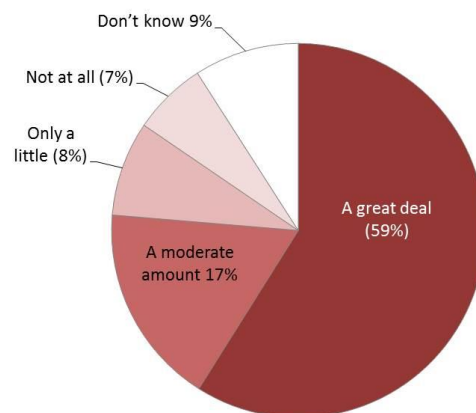
How much do you think climate change will harm … ? *(Unweighted base 2,126)*

Figure 10 | *Harm to community resources from climate change*
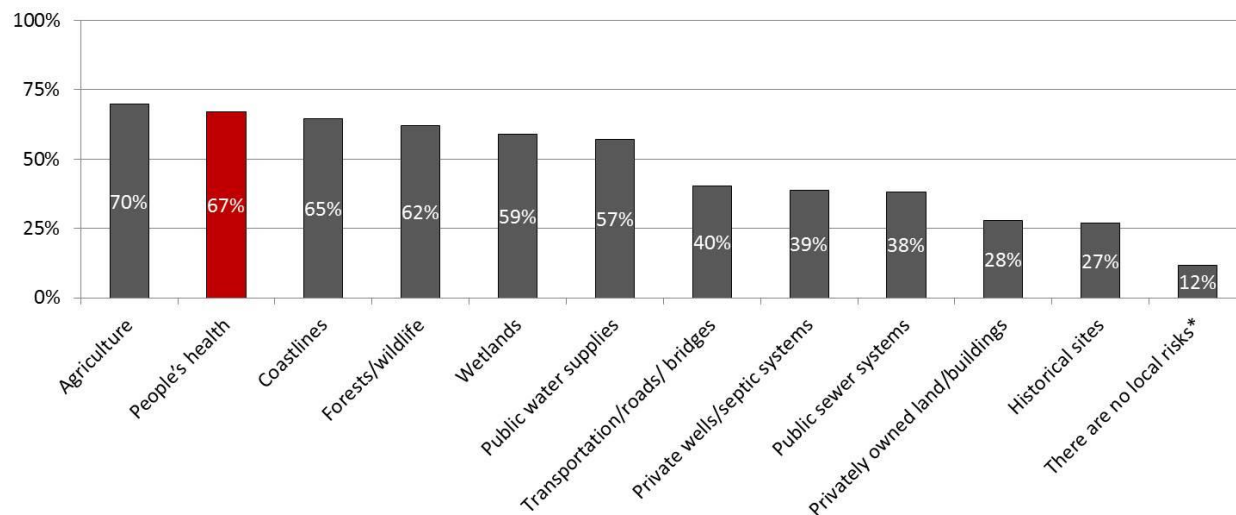
Which of the following resources in your community do you think may be harmed by climate change in the next several years?
(Please check ALL THAT APPLY) *(Unweighted base 2,126)*
There are no local risks from climate change

Figure 11 | *Perceived types of health problems affected by climate change*
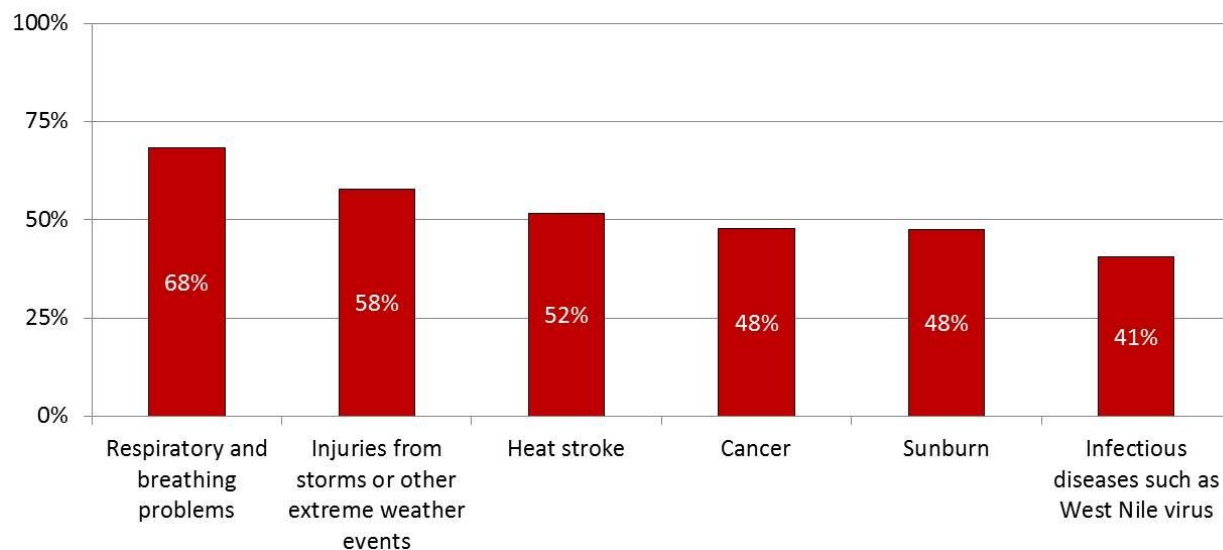
Which — if any — of the following health problems will become more common in Maryland in the future because of climate change? (Please check ALL THAT APPLY) *(Unweighted base 2,126)*

5. Those most vulnerable to climate harm are somewhat more likely to feel at risk

Fewer than one-in-five Marylanders (18%) feel they – and others in their household – are not at all vulnerable to the potential health effects of climate change. Conversely, a large majority of respondents say people in their household are at least a little vulnerable (70%), and nearly half (45%) say they are moderately or very vulnerable to the potential health effects of climate change. (Figure 12)

Some people are more vulnerable than others to the health effects of climate change[7]. For example, people who have certain medical conditions such as coronary heart disease, respiratory illness, physical or mental disabilities, diabetes, or obesity are more vulnerable to the effects of climate change like heat waves, reduced air quality, infectious diseases, and violent storms than are healthier people. In order to assess whether Marylanders who have these medical conditions understand that they or members or other people in their immediate household are more vulnerable, we evaluated whether there was a correlation between the number of at-risk medical conditions in the household, and perceptions of household vulnerability. We found a small, but statistically significant correlation (r=.23, p<.01). (Figure 13) Those residents with more than one medical condition that increases their vulnerability were more likely to say they were very vulnerable to the health consequences of climate change (22%), as compared to those people with only one medical condition (14%) and those who have no identified medical conditions (6%).

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[7] Balbus, J., Frumkin, H., Hayden, M., Hess, J., McGeehin, M., & Sheats, N. (2013). Chapter 9. Human health. Draft National Climate Assessment. National Climate Assessment and Development Advisory Committee. U.S. Global Change Research Program. Retrieved from http://ncadac.globalchange.gov/

Figure 12 | *Perceived vulnerability to climate change health impacts*
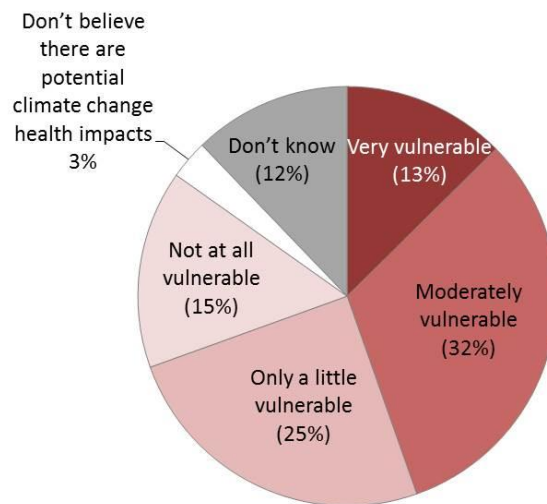
How vulnerable — if at all — are the people living in your immediate household, including yourself, to potential health impacts of climate change? *(Unweighted base 2,126)*

Figure 13 | *Perceived household vulnerability in relation to medical conditions*
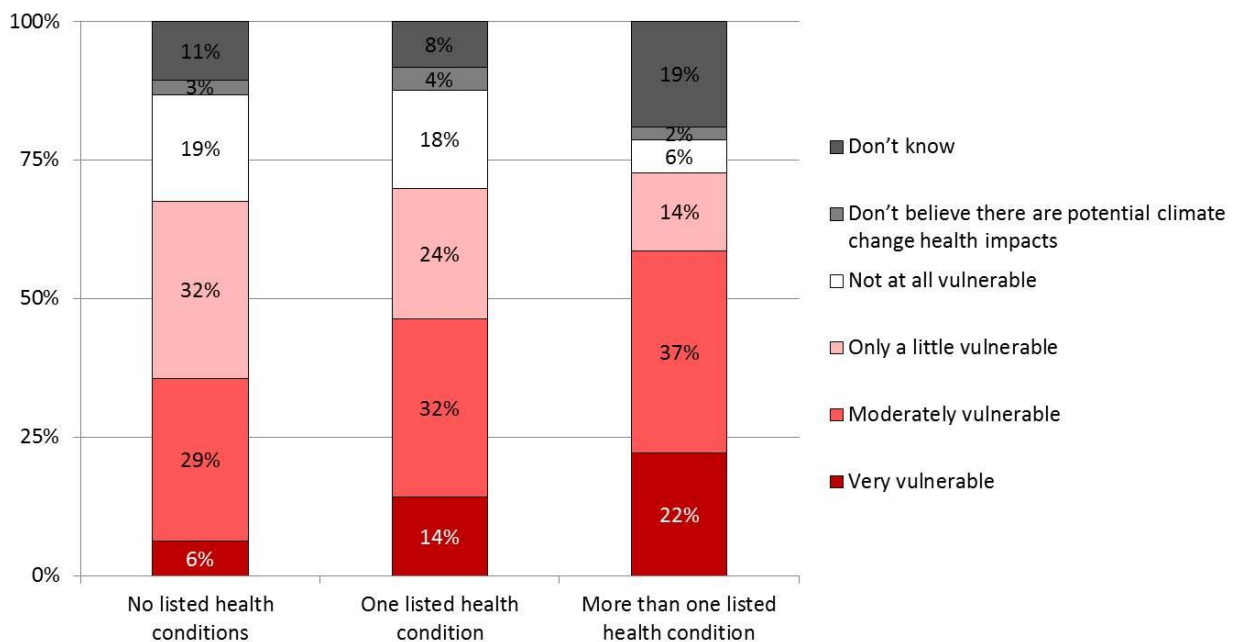
Includes respondents asked whether they or someone in their household have one or more of the following conditions: coronary heart disease, diabetes, obesity, a respiratory illness, or a physical or mental disability. Perceived vulnerability was assessed by the question: How vulnerable — if at all — are the people living in your immediate household, including yourself, to potential health impacts of climate change? *(Unweighted base 2,126)*

6. Study methodology

This study was conducted by George Mason University's Center for Climate Change Communication in partnership with Maryland Department of Health and Mental Hygiene to explore Marylanders' views on public health, energy and the environment. The survey instrument was developed at George Mason University, largely based on questions used in the Climate Change in the American Mind national surveys run by the Yale Project on Climate Change Communication (http://environment.yale.edu/ climate-communication/) and George Mason's Center for Climate Change Communication (http://climatechange communication.org/). The mail survey consisted of 55 questions, and took approximately 20 minutes to complete. A copy of the original instrument can be downloaded at: http://www.climatemaryland.org/resources/survey/

For reporting purposes, the data has been broken into two separate documents; this survey report focused on public health is the first of these. A second report will follow on Marylanders' climate change attitudes, behaviors and policy preferences.

Sampling design; fielding
The survey was mailed to 6,401 households in the state of Maryland, randomly selected from within each of four regions of the state from Survey Sampling International household address databases, based primarily on U.S. Postal Service delivery route information. We sampled at the regional level to ensure the final data was generalizable to these distinctly different geographic and cultural areas of the state, as well as the state as a whole. The sample size for the Central region of the state was higher relative to the other three regions because it accounts for more than half of the state's population (see Table 1).

The survey was fielded from March 28 to June 4, 2013. Each household was sent up to four mailings: an announcement letter introducing the survey (March 28), a copy of the survey with a $2 bill thank you (April 1), a reminder postcard (April 13), and a follow-up survey (April 29). In order to achieve randomization of respondents within each household, we requested that the person with the most recent birthday complete the survey. Households that completed and returned the survey were taken off of subsequent mailing lists.

Weighting
The data tables report percentages for the state and each region. State data were weighted for regional representation, gender, age, and education level based on 3-year American Community Survey data from the U.S. Census Bureau. Each region's data were also weighted for the same demographic variables. Base unweighted sample sizes for each question are reported in addition to the weighted percentages. Respondents who did not provide regional,

gender, age or education level data were dropped from the data set. This lowered the number of respondents by 146 cases. Please see the demographics section of the appendix for more information on the characteristics of the survey sample pre- and post-weighting.

Institutional Review Board
The study was reviewed by Institutional Review Boards for both George Mason University (Protocol #8508) and Maryland Department of Health and Mental Hygiene (Protocol #13-04).

Table 1 | *Regional samples, response rates and margin of error*

Region	Counties	Initial sample	Refusals	Undeliverable addresses	Number of respondents*	Response rate	Margin of error
Western	Allegany, Frederick, Garrett, Washington	1,467	11	97	551	43%	+/- 4.17 % points
Central	Baltimore, Carroll, Cecil, Harford, Howard, Montgomery, Baltimore City	2,000	14	110	671	38%	+/- 3.78 % points
Southern	Anne Arundel, Calvert, Charles, Prince George's, St. Mary's	1,467	5	90	421	33%	+/- 4.78 % points
Eastern	Caroline, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico, Worcester	1,467	9	180	483	40%	+/- 4.46 % points
State	All counties	6,401	39	477	2,126	38%	+/- 2.1 % points

Appendices

– Data tables
– Sample demographics

The following tables provide data at the state and regional level for each of the questions included in this survey report. "Unweighted n" refers to the number of people who responded to each question. The samples were weighted to better approximate U.S. Census data on state population distributions. More information can be found in the study methodology section. The counties included in each region are listed below.

Region	Counties
Western	Allegany, Frederick, Garrett and Washington counties
Central	Baltimore, Carroll, Cecil, Harford, Howard, Montgomery counties and Baltimore City
Southern	Anne Arundel, Calvert, Charles, Prince George's and St. Mary's counties
Eastern	Caroline, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico and Worcester counties
State	All counties

Data tables | Marylanders' perceptions of threats to their health

Table 1 | *Personal health risks*

Below is a list of potential risks to people's health. How much of a risk do you feel each currently poses to your own health?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Second-hand smoke from tobacco	No risk at all	**20.3%**	22.1%	21.1%	18.5%	19.7%
	Minor risk	**27.1%**	28.4%	25.7%	28.4%	31.9%
	Moderate risk	**22.3%**	24.4%	23.0%	20.5%	23.1%
	Major risk	**29.1%**	24.4%	28.6%	32.1%	24.8%
	Don't know	**1.1%**	0.7%	1.5%	0.5%	0.5%
	Unweighted n	2092	545	659	412	476
Exposure to chemicals, including pesticides, in food and other products	No risk at all	**8.8%**	6.7%	10.2%	7.3%	6.4%
	Minor risk	**22.6%**	30.5%	21.8%	21.5%	24.7%
	Moderate risk	**34.8%**	30.8%	34.0%	37.5%	33.4%
	Major risk	**32.0%**	29.3%	32.1%	32.1%	34.3%
	Don't know	**1.8%**	2.7%	1.9%	1.5%	1.3%
	Unweighted n	2090	543	664	415	468
Air pollution	No risk at all	**5.3%**	4.7%	5.3%	4.9%	8.6%
	Minor risk	**23.5%**	28.2%	22.4%	22.6%	31.1%
	Moderate risk	**38.9%**	39.1%	35.5%	46.0%	33.6%
	Major risk	**30.8%**	24.9%	35.4%	25.4%	23.9%
	Don't know	**1.6%**	3.1%	1.4%	1.1%	2.7%
	Unweighted n	2091	546	658	414	473
Heat waves	No risk at all	**15.1%**	19.5%	15.7%	13.7%	11.3%
	Minor risk	**30.1%**	34.4%	29.4%	29.8%	33.1%
	Moderate risk	**35.4%**	28.0%	34.5%	38.7%	37.4%
	Major risk	**16.3%**	12.5%	17.5%	15.4%	15.8%
	Don't know	**3.0%**	5.7%	3.0%	2.4%	2.3%
	Unweighted n	2092	545	663	412	472
Violent storms	No risk at all	**7.7%**	10.3%	8.3%	5.7%	9.4%
	Minor risk	**36.4%**	40.7%	36.3%	36.3%	31.4%
	Moderate risk	**34.4%**	28.7%	33.4%	37.7%	35.8%
	Major risk	**19.5%**	16.2%	20.2%	18.6%	21.3%
	Don't know	**2.0%**	4.0%	1.8%	1.8%	2.1%
	Unweighted n	2073	540	655	410	468

Table 1 Continued>>

Table 1 Continued>>

How much of a risk do you feel each currently poses to your own health?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Obesity	No risk at all	**22.6%**	24.3%	24.7%	18.4%	22.1%
	Minor risk	**19.8%**	14.2%	19.6%	22.3%	17.3%
	Moderate risk	**19.4%**	29.2%	16.8%	21.4%	18.5%
	Major risk	**37.0%**	30.1%	37.4%	37.4%	41.2%
	Don't know	**1.2%**	2.2%	1.4%	0.6%	0.9%
	Unweighted n	2073	540	655	410	468
Polluted drinking water	No risk at all	**16.1%**	16.0%	18.3%	11.5%	18.4%
	Minor risk	**28.5%**	26.6%	25.8%	34.8%	25.2%
	Moderate risk	**20.5%**	25.2%	20.9%	19.0%	17.6%
	Major risk	**32.7%**	31.0%	32.9%	32.5%	34.9%
	Don't know	**2.1%**	1.2%	2.0%	2.2%	3.8%
	Unweighted n	2086	543	661	409	473
Flu epidemics	No risk at all	**5.7%**	7.2%	6.8%	3.2%	5.3%
	Minor risk	**29.8%**	34.2%	29.8%	27.5%	34.2%
	Moderate risk	**33.3%**	31.8%	34.0%	31.7%	37.5%
	Major risk	**29.0%**	25.8%	27.8%	33.3%	22.4%
	Don't know	**2.3%**	1.1%	1.6%	4.3%	0.5%
	Unweighted n	2092	545	663	411	473
Climate change	No risk at all	**17.0%**	22.4%	18.4%	13.4%	15.2%
	Minor risk	**28.3%**	25.9%	29.1%	26.6%	32.2%
	Moderate risk	**31.8%**	29.8%	28.8%	38.0%	31.6%
	Major risk	**20.0%**	18.9%	20.9%	19.1%	17.4%
	Don't know	**2.9%**	2.9%	2.8%	3.0%	3.6%
	Unweighted n	2072	541	651	408	472
Insect-borne diseases, like West Nile virus and Lyme disease	No risk at all	**9.1%**	9.5%	9.9%	7.5%	9.5%
	Minor risk	**27.4%**	31.3%	28.7%	23.9%	27.4%
	Moderate risk	**36.0%**	32.9%	36.6%	37.2%	29.9%
	Major risk	**26.0%**	25.2%	23.6%	30.2%	29.1%
	Don't know	**1.4%**	1.1%	1.3%	1.2%	4.2%
	Unweighted n	2098	545	663	412	478
Flooding	No risk at all	**25.1%**	39.8%	26.4%	20.0%	18.1%
	Minor risk	**40.3%**	33.5%	40.1%	43.1%	36.8%
	Moderate risk	**18.9%**	13.5%	17.7%	20.9%	27.7%
	Major risk	**13.3%**	11.3%	13.8%	12.7%	14.2%
	Don't know	**2.4%**	1.9%	1.9%	3.3%	3.2%
	Unweighted n	2054	538	650	403	463

Table 2 | *Changes in severity of community health risks*

For each of these potential health risks, would you say it has become more or less of a problem over the past several years in your community?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Second-hand smoke from tobacco	Much less	**25.7%**	25.5%	26.9%	23.6%	26.6%
	Somewhat less	**21.5%**	23.5%	20.0%	21.3%	33.3%
	Remained the same	**31.8%**	34.0%	32.5%	31.5%	24.2%
	Somewhat more	**8.7%**	7.4%	7.9%	11.2%	5.5%
	Much more	**8.1%**	5.6%	9.2%	7.2%	6.7%
	Don't know	**4.1%**	4.0%	3.6%	5.2%	3.7%
	Unweighted n	2099	547	665	412	475
Exposure to chemicals, including pesticides, in food and other products	Much less	**7.6%**	5.2%	9.7%	4.3%	8.2%
	Somewhat less	**14.2%**	13.5%	13.8%	14.5%	16.5%
	Remained the same	**42.0%**	42.8%	40.5%	45.0%	39.3%
	Somewhat more	**18.9%**	22.8%	18.5%	18.9%	16.9%
	Much more	**8.6%**	8.0%	9.2%	7.1%	10.8%
	Don't know	**8.7%**	7.8%	8.2%	10.1%	8.3%
	Unweighted n	2098	547	662	415	474
Air pollution	Much less	**5.7%**	6.8%	7.2%	2.4%	7.6%
	Somewhat less	**10.5%**	11.7%	11.2%	8.5%	11.9%
	Remained the same	**43.0%**	49.2%	40.6%	45.2%	45.2%
	Somewhat more	**25.6%**	18.3%	24.8%	30.4%	19.6%
	Much more	**9.6%**	9.1%	11.2%	7.2%	8.2%
	Don't know	**5.5%**	4.8%	5.0%	6.3%	7.4%
	Unweighted n	2096	546	659	414	477
Heat waves	Much less	**5.7%**	6.8%	6.3%	4.4%	5.1%
	Somewhat less	**6.2%**	15.6%	4.8%	6.1%	6.5%
	Remained the same	**46.3%**	43.4%	44.4%	49.3%	52.1%
	Somewhat more	**26.5%**	23.2%	25.6%	29.2%	25.5%
	Much more	**9.0%**	4.6%	11.3%	6.4%	6.8%
	Don't know	**6.4%**	6.4%	7.6%	4.6%	4.1%
	Unweighted n	2092	544	659	414	475

Table 2 Continued>>

Table 2 Continued>>

For each of these potential health risks, would you say it has become more or less of a problem over the past several years in your community?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Violent storms	Much less	**4.9%**	5.2%	6.4%	2.0%	4.8%
	Somewhat less	**5.4%**	5.5%	4.9%	6.2%	6.4%
	Remained the same	**33.9%**	40.1%	34.2%	29.3%	45.3%
	Somewhat more	**38.2%**	30.0%	34.8%	48.7%	29.6%
	Much more	**13.4%**	14.7%	14.9%	10.4%	12.0%
	Don't know	**4.2%**	4.4%	4.7%	3.4%	2.1%
	Unweighted n	2094	545	660	415	474
Obesity	Much less	**7.3%**	6.0%	8.0%	6.9%	5.6%
	Somewhat less	**5.7%**	6.8%	5.5%	5.5%	7.4%
	Remained the same	**29.4%**	31.5%	33.3%	20.8%	33.8%
	Somewhat more	**27.9%**	30.3%	25.8%	31.0%	28.9%
	Much more	**24.6%**	21.0%	22.0%	30.9%	21.7%
	Don't know	**5.0%**	4.4%	5.4%	5.0%	2.6%
	Unweighted n	2091	544	660	414	473
Polluted drinking water	Much less	**7.6%**	6.2%	9.4%	4.2%	10.2%
	Somewhat less	**9.8%**	12.3%	8.2%	11.4%	12.4%
	Remained the same	**46.3%**	53.1%	48.6%	40.7%	43.8%
	Somewhat more	**17.3%**	13.2%	14.5%	23.1%	18.5%
	Much more	**9.5%**	6.5%	8.4%	13.1%	6.5%
	Don't know	**9.6%**	8.7%	10.9%	7.5%	8.6%
	Unweighted n	2088	543	658	414	473
Flu epidemics	Much less	**5.3%**	3.4%	8.0%	1.1%	4.4%
	Somewhat less	**9.8%**	9.8%	8.4%	11.6%	13.4%
	Remained the same	**37.8%**	42.1%	36.8%	36.4%	47.4%
	Somewhat more	**26.4%**	31.3%	25.5%	27.6%	21.3%
	Much more	**15.1%**	7.6%	14.7%	19.0%	9.1%
	Don't know	**5.7%**	5.9%	6.6%	4.3%	4.5%
	Unweighted n	2088	545	660	413	470

Table 2 Continued>>

For each of these potential health risks, would you say it has become more or less of a problem over the past several years in your community?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Climate change	Much less	**7.5%**	4.5%	9.4%	5.0%	6.2%
	Somewhat less	**5.9%**	7.7%	6.2%	4.7%	7.3%
	Remained the same	**33.3%**	37.9%	32.1%	33.3%	36.7%
	Somewhat more	**33.7%**	29.1%	33.5%	35.7%	31.8%
	Much more	**14.7%**	13.7%	13.8%	17.2%	11.9%
	Don't know	**5.0%**	7.1%	5.0%	4.2%	6.1%
	Unweighted n	2095	545	662	414	474
Insect-borne diseases, like West Nile virus and Lyme disease	Much less	**7.7%**	5.7%	11.4%	1.6%	7.3%
	Somewhat less	**10.7%**	10.4%	6.2%	19.2%	9.6%
	Remained the same	**38.8%**	39.2%	38.1%	39.6%	41.0%
	Somewhat more	**26.0%**	24.8%	26.9%	24.8%	24.6%
	Much more	**9.8%**	9.2%	10.1%	9.1%	11.0%
	Don't know	**7.1%**	10.6%	7.4%	5.6%	6.6%
	Unweighted n	2099	547	663	416	473
Flooding	Much less	**10.8%**	10.5%	15.1%	3.9%	7.1%
	Somewhat less	**8.5%**	10.5%	8.3%	8.3%	9.4%
	Remained the same	**51.6%**	51.6%	48.6%	57.3%	50.6%
	Somewhat more	**15.2%**	12.5%	13.9%	17.5%	19.8%
	Much more	**5.9%**	4.2%	5.7%	6.3%	8.7%
	Don't know	**7.9%**	10.7%	8.4%	6.8%	4.4%
	Unweighted n	2096	546	662	414	474

Data tables | Extreme weather impacts and responses in Maryland

Table 3 | *Health risks from extreme weather*

Over the past year, how much of a health risk was extreme weather for people in your community?

	STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
No health risk at all	**13.4%**	14.8%	13.5%	12.9%	11.9%
A minor health risk	**41.5%**	42.3%	39.2%	46.9%	34.4%
A moderate health risk	**30.1%**	31.8%	31.1%	26.8%	34.9%
A major health risk	**7.7%**	4.3%	10.2%	3.4%	10.4%
Don't know	**7.4%**	6.7%	6.0%	10.0%	8.4%
Unweighted n	2113	549	665	419	480

Table 4 | *Community harms from extreme weather*

Have extreme weather events in your community made each of the following more or less common over the past several years, or have they stayed about the same?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Loss of electric power	Much less common	**9.3%**	8.5%	7.0%	14.1%	8.7%
	Somewhat less common	**9.6%**	5.8%	9.3%	10.7%	11.9%
	Stayed about the same	**35.0%**	45.5%	32.8%	33.5%	48.1%
	Somewhat more common	**29.6%**	25.6%	34.1%	23.3%	25.1%
	Much more common	**14.3%**	11.9%	15.6%	14.3%	5.8%
	Don't know	**2.2%**	2.7%	1.3%	4.1%	0.3%
	Unweighted n	2117	550	667	419	481
Loss of drinking water	Much less common	**21.2%**	21.1%	20.3%	23.0%	20.9%
	Somewhat less common	**11.3%**	10.5%	8.8%	16.0%	11.0%
	Stayed about the same	**51.6%**	54.0%	53.8%	46.5%	53.3%
	Somewhat more common	**4.8%**	3.1%	5.6%	3.3%	7.6%
	Much more common	**3.4%**	5.3%	4.3%	1.7%	0.3%
	Don't know	**7.8%**	6.1%	7.2%	9.5%	6.9%
	Unweighted n	2109	548	663	420	478
Floods	Much less common	**13.7%**	17.6%	11.7%	17.0%	10.4%
	Somewhat less common	**11.2%**	9.9%	12.5%	9.3%	10.3%
	Stayed about the same	**47.7%**	50.9%	47.9%	46.2%	48.5%
	Somewhat more common	**18.2%**	10.7%	20.1%	16.4%	20.3%
	Much more common	**2.3%**	0.8%	2.4%	1.8%	7.0%
	Don't know	**6.9%**	10.1%	5.5%	9.4%	3.5%
	Unweighted n	2110	549	662	420	479
Wildfires	Much less common	**25.2%**	22.9%	25.1%	25.1%	30.4%
	Somewhat less common	**11.9%**	9.0%	13.7%	9.9%	8.6%
	Stayed about the same	**45.1%**	48.3%	44.7%	44.0%	50.2%
	Somewhat more common	**3.2%**	4.6%	2.8%	3.3%	3.4%
	Much more common	**0.4%**	0.3%	0.7%	0.1%	0.0%
	Don't know	**14.2%**	14.9%	13.0%	17.5%	7.3%
	Unweighted n	2095	544	659	418	474

Table 4 Continued>>

Have extreme weather events in your community made each of the following more or less common over the past several years, or have they stayed about the same?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Damage to private property (such as homes)	Much less common	**13.2%**	14.1%	13.9%	11.8%	12.4%
	Somewhat less common	**6.7%**	7.1%	6.8%	6.1%	7.3%
	Stayed about the same	**39.3%**	38.2%	37.8%	41.8%	42.0%
	Somewhat more common	**24.6%**	24.7%	25.0%	23.3%	27.8%
	Much more common	**10.1%**	10.2%	11.8%	7.5%	8.1%
	Don't know	**6.1%**	5.7%	4.8%	9.5%	2.4%
	Unweighted n	2115	550	666	418	481
Damage to public property (such as roads, government buildings, and parks)	Much less common	**10.1%**	11.2%	11.6%	7.4%	7.4%
	Somewhat less common	**8.4%**	7.7%	7.7%	10.5%	5.1%
	Stayed about the same	**40.0%**	40.4%	37.5%	43.3%	45.4%
	Somewhat more common	**23.7%**	22.6%	25.0%	20.5%	29.4%
	Much more common	**9.7%**	10.8%	11.4%	6.6%	8.7%
	Don't know	**8.1%**	7.3%	6.8%	11.7%	3.9%
	Unweighted n	2117	551	666	418	482
Harm to crops	Much less common	**11.3%**	8.0%	13.3%	10.3%	2.6%
	Somewhat less common	**3.6%**	3.8%	3.5%	3.4%	5.2%
	Stayed about the same	**31.2%**	38.7%	33.0%	23.9%	40.4%
	Somewhat more common	**22.7%**	24.6%	19.8%	26.4%	27.9%
	Much more common	**5.7%**	11.0%	5.0%	3.4%	15.9%
	Don't know	**25.5%**	14.0%	25.4%	32.6%	7.8%
	Unweighted n	2102	547	660	418	477
Human injuries/deaths	Much less common	**11.9%**	11.8%	14.2%	7.7%	12.4%
	Somewhat less common	**6.9%**	6.4%	5.5%	9.5%	7.0%
	Stayed about the same	**38.7%**	45.0%	40.4%	31.2%	51.5%
	Somewhat more common	**14.3%**	12.7%	15.5%	12.6%	13.7%
	Much more common	**4.9%**	8.2%	5.3%	3.5%	2.9%
	Don't know	**23.3%**	15.9%	19.0%	35.5%	12.5%
	Unweighted n	2114	550	664	419	481

Table 5 | *Extreme weather preparedness and response actions*

What actions — if any — have you taken to prepare for or respond to extreme weather events?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Stocked your home with a first-aid kit	Yes	**64.5%**	66.5%	63.6%	65.2%	67.3%
	No	**34.5%**	32.1%	35.4%	33.9%	32.6%
	Don't know	**1.0%**	1.4%	1.1%	1.0%	0.1%
	Unweighted n	2102	545	666	418	473
Stocked your home with an emergency supply of water	Yes	**60.7%**	60.8%	60.6%	59.8%	67.0%
	No	**38.5%**	38.8%	38.6%	39.4%	32.8%
	Don't know	**0.8%**	0.5%	0.8%	0.9%	0.2%
	Unweighted n	2113	548	668	418	479
Stocked your home with an emergency supply of food	Yes	**55.5%**	58.1%	58.5%	49.0%	56.1%
	No	**43.7%**	41.4%	40.8%	50.1%	42.3%
	Don't know	**0.8%**	0.5%	0.7%	0.9%	1.6%
	Unweighted n	2092	542	665	413	472
Purchased or installed a home generator as a back-up source of electricity	Yes	**21.6%**	22.1%	21.5%	21.6%	21.2%
	No	**77.7%**	77.3%	78.0%	77.7%	76.1%
	Don't know	**0.7%**	0.5%	0.5%	0.7%	2.7%
	Unweighted n	2112	550	668	417	477
Developed an evacuation plan to move to a shelter or other safe location	Yes	**28.4%**	24.6%	31.4%	23.3%	31.0%
	No	**69.8%**	74.4%	66.5%	75.5%	66.2%
	Don't know	**1.8%**	0.9%	2.2%	1.2%	2.7%
	Unweighted n	2110	548	668	417	477
Evacuated from your home to a shelter or other safe location	Yes	**14.9%**	9.2%	17.4%	11.7%	16.0%
	No	**83.6%**	89.7%	80.8%	87.1%	83.1%
	Don't know	**1.5%**	1.1%	1.8%	1.3%	0.8%
	Unweighted n	2111	551	667	415	478

Table 6 | *Prioritizing protection of public and private resources*

How high of a priority, if at all, should protecting each of the following from extreme weather and other environmental threats be for your state and local governments?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Public water supplies	Should not be a priority	**1.2%**	3.4%	1.4%	0.3%	0.9%
	Low priority	**1.5%**	2.4%	1.6%	0.7%	3.3%
	Medium priority	**9.7%**	9.1%	9.6%	9.5%	11.7%
	High priority	**86.0%**	82.7%	86.0%	88.4%	78.9%
	Don't know	**1.6%**	2.3%	1.3%	1.1%	5.3%
	Unweighted n	2114	550	668	418	478
Public sewer systems	Should not be a priority	**1.7%**	2.8%	2.1%	0.1%	3.3%
	Low priority	**2.3%**	5.4%	2.1%	1.7%	3.7%
	Medium priority	**25.0%**	25.8%	19.0%	36.1%	22.9%
	High priority	**68.1%**	63.8%	74.4%	58.8%	62.9%
	Don't know	**3.0%**	2.1%	2.4%	3.3%	7.3%
	Unweighted n	2107	548	665	417	477
People's health	Should not be a priority	**1.3%**	2.9%	1.2%	0.8%	1.5%
	Low priority	**2.3%**	3.2%	3.0%	0.8%	2.1%
	Medium priority	**14.1%**	15.3%	12.6%	16.8%	12.9%
	High priority	**80.0%**	77.4%	81.8%	77.6%	78.4%
	Don't know	**2.4%**	1.2%	1.4%	3.9%	5.1%
	Unweighted n	2097	544	663	415	475
Transportation/roads/ bridges	Should not be a priority	**0.5%**	1.6%	0.6%	0.1%	0.1%
	Low priority	**2.2%**	4.5%	1.7%	2.7%	2.1%
	Medium priority	**24.8%**	32.9%	23.5%	25.8%	20.8%
	High priority	**71.0%**	59.8%	72.8%	70.5%	72.3%
	Don't know	**1.4%**	1.1%	1.4%	0.9%	4.6%
	Unweighted n	2095	544	664	411	476
Historical sites	Should not be a priority	**8.4%**	14.8%	7.9%	7.3%	8.8%
	Low priority	**26.5%**	29.4%	24.9%	27.7%	30.6%
	Medium priority	**39.2%**	37.0%	40.0%	39.5%	33.6%
	High priority	**23.3%**	13.4%	25.3%	23.3%	19.0%
	Don't know	**2.6%**	5.5%	1.9%	2.2%	7.9%
	Unweighted n	2101	548	664	414	475

Table 6 Continued>>

Table 6 Continued>>

How high of a priority, if at all, should protecting each of the following …? *(complete wording previous page)*

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Coastlines	Should not be a priority	**4.3%**	6.8%	3.9%	4.9%	1.5%
	Low priority	**11.2%**	13.6%	13.0%	7.6%	8.9%
	Medium priority	**35.4%**	38.1%	34.1%	37.9%	32.0%
	High priority	**45.3%**	29.2%	46.3%	46.9%	50.7%
	Don't know	**3.8%**	12.2%	2.7%	2.8%	6.9%
	Unweighted n	2098	542	662	416	478
Wetlands	Should not be a priority	**5.7%**	10.1%	3.9%	8.3%	3.3%
	Low priority	**15.9%**	17.7%	17.9%	12.4%	11.6%
	Medium priority	**33.9%**	35.9%	33.9%	33.1%	35.6%
	High priority	**39.9%**	24.2%	40.3%	42.7%	44.2%
	Don't know	**4.5%**	12.2%	3.9%	3.4%	5.4%
	Unweighted n	2100	547	661	417	475
Forests/wildlife	Should not be a priority	**3.0%**	4.7%	3.8%	1.4%	0.8%
	Low priority	**12.4%**	15.2%	13.6%	9.6%	11.4%
	Medium priority	**37.1%**	40.2%	34.8%	40.4%	37.3%
	High priority	**44.8%**	34.4%	45.5%	46.2%	45.0%
	Don't know	**2.8%**	5.5%	2.2%	2.4%	5.5%
	Unweighted n	2105	547	665	417	476
Agriculture	Should not be a priority	**3.4%**	3.5%	2.3%	5.7%	1.9%
	Low priority	**6.7%**	6.0%	7.7%	5.6%	4.7%
	Medium priority	**28.2%**	22.8%	27.9%	30.2%	27.9%
	High priority	**58.9%**	62.7%	59.3%	56.9%	60.7%
	Don't know	**2.8%**	5.0%	2.8%	1.7%	4.8%
	Unweighted n	2095	542	662	415	476
Private wells/septic systems	Should not be a priority	**8.0%**	8.6%	8.3%	7.6%	6.8%
	Low priority	**18.9%**	15.4%	20.0%	18.2%	17.1%
	Medium priority	**28.8%**	32.5%	27.6%	30.6%	25.5%
	High priority	**40.3%**	37.0%	40.1%	41.1%	43.4%
	Don't know	**4.0%**	6.6%	4.0%	2.5%	7.3%
	Unweighted n	2103	547	664	418	474
Privately owned land/buildings	Should not be a priority	**12.1%**	12.0%	11.8%	12.5%	12.7%
	Low priority	**24.7%**	23.7%	24.6%	25.2%	24.3%
	Medium priority	**32.8%**	35.5%	34.1%	30.1%	30.6%
	High priority	**26.1%**	20.7%	25.6%	28.7%	25.1%
	Don't know	**4.3%**	8.2%	3.9%	3.5%	7.3%
	Unweighted n	2101	545	663	419	474

Data tables | Views on health risks from energy sources

Table 7 | *Health risks from sources of electrical energy*

Please rate each of the following sources of electrical energy in terms of how harmful they are to people's health.

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Coal	Not at all harmful	**2.8%**	5.3%	2.4%	2.6%	4.4%
	Not very harmful	**9.6%**	11.0%	8.8%	10.3%	11.8%
	Somewhat harmful	**37.5%**	33.1%	38.8%	36.6%	36.3%
	Very harmful	**30.8%**	27.2%	29.1%	35.4%	27.7%
	Don't know	**19.3%**	23.3%	21.0%	15.0%	19.8%
	Unweighted n	2098	541	666	420	471
Petroleum (oil)	Not at all harmful	**3.1%**	5.2%	2.8%	2.4%	6.1%
	Not very harmful	**15.1%**	18.3%	12.7%	17.6%	20.3%
	Somewhat harmful	**38.8%**	30.2%	42.4%	35.4%	34.9%
	Very harmful	**20.2%**	14.4%	17.8%	26.6%	18.6%
	Don't know	**22.8%**	31.9%	24.3%	17.9%	20.1%
	Unweighted n	2088	538	665	414	471
Natural gas extracted by hydraulic fracturing ("fracking") in Maryland	Not at all harmful	**5.5%**	6.1%	5.2%	4.9%	10.1%
	Not very harmful	**19.4%**	19.0%	19.3%	19.0%	22.1%
	Somewhat harmful	**27.9%**	21.8%	26.9%	31.3%	28.8%
	Very harmful	**16.5%**	16.2%	17.4%	15.1%	15.4%
	Don't know	**30.7%**	36.9%	31.2%	29.6%	23.5%
	Unweighted n	2086	538	665	414	469
Other sources of natural gas	Not at all harmful	**9.5%**	8.5%	9.0%	10.6%	10.1%
	Not very harmful	**27.4%**	29.2%	26.3%	28.1%	31.3%
	Somewhat harmful	**24.0%**	22.5%	25.1%	21.6%	28.7%
	Very harmful	**5.4%**	5.5%	5.5%	5.3%	5.2%
	Don't know	**33.7%**	34.3%	34.1%	34.4%	24.8%
	Unweighted n	2074	536	657	415	466
Offshore wind	Not at all harmful	**58.0%**	50.6%	53.8%	66.4%	64.6%
	Not very harmful	**17.1%**	16.4%	18.4%	14.4%	19.0%
	Somewhat harmful	**4.2%**	4.6%	5.7%	2.0%	1.1%
	Very harmful	**1.1%**	1.3%	1.2%	0.7%	1.0%
	Don't know	**19.7%**	27.1%	20.9%	16.5%	14.2%
	Unweighted n	2060	533	652	413	462

Table 7 Continued>>

Table 7 Continued>>

Please rate each of the following sources of electrical energy in terms of how harmful they are to people's health.

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Land-based wind	Not at all harmful	**59.6%**	50.3%	56.3%	67.0%	65.2%
	Not very harmful	**17.8%**	17.4%	20.0%	13.7%	19.0%
	Somewhat harmful	**4.4%**	4.5%	6.0%	2.1%	1.3%
	Very harmful	**1.0%**	2.2%	1.0%	0.7%	1.5%
	Don't know	**17.2%**	25.6%	16.7%	16.4%	13.0%
	Unweighted n	2079	535	660	414	470
Nuclear	Not at all harmful	**6.6%**	8.4%	5.2%	8.2%	9.4%
	Not very harmful	**11.5%**	9.8%	12.1%	10.9%	11.1%
	Somewhat harmful	**23.1%**	17.0%	25.8%	20.2%	20.7%
	Very harmful	**34.6%**	26.5%	32.1%	41.0%	36.0%
	Don't know	**24.2%**	38.2%	24.8%	19.7%	22.8%
	Unweighted n	2064	533	653	413	465
Solar	Not at all harmful	**60.3%**	58.4%	56.7%	66.0%	66.9%
	Not very harmful	**17.8%**	11.8%	19.0%	17.1%	18.4%
	Somewhat harmful	**3.6%**	2.6%	5.2%	1.4%	2.0%
	Very harmful	**2.9%**	1.9%	4.4%	0.9%	0.7%
	Don't know	**15.4%**	25.4%	14.7%	14.6%	12.0%
	Unweighted n	2077	532	663	416	466
Hydroelectric (including dams)	Not at all harmful	**38.5%**	39.7%	35.3%	43.3%	40.9%
	Not very harmful	**24.4%**	20.9%	24.3%	24.6%	28.0%
	Somewhat harmful	**10.2%**	6.6%	12.5%	8.0%	6.3%
	Very harmful	**1.9%**	4.1%	1.9%	1.4%	0.5%
	Don't know	**25.1%**	28.8%	26.0%	22.6%	24.3%
	Unweighted n	2075	536	659	416	464
Wood fuel or switchgrass	Not at all harmful	**8.1%**	6.8%	7.9%	7.0%	17.9%
	Not very harmful	**18.6%**	21.8%	18.7%	16.5%	25.2%
	Somewhat harmful	**24.1%**	24.0%	21.9%	28.7%	21.5%
	Very harmful	**10.2%**	7.2%	8.8%	14.9%	2.9%
	Don't know	**39.0%**	40.2%	42.8%	33.0%	32.5%
	Unweighted n	2083	539	660	418	466

Data tables | Type and timing of harms from climate change

Table 8 | *When climate change will harm people in U.S.*

When do you think climate change will start to harm people in the United States?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
	They are being harmed now	**52.1%**	48.1%	57.5%	44.0%	49.2%
	In 10 years	**13.3%**	13.5%	10.7%	17.9%	14.7%
	In 25 years	**9.5%**	10.3%	9.8%	9.1%	8.0%
	In 50 years	**6.4%**	5.3%	7.4%	4.7%	7.5%
	In 100 years	**5.9%**	5.1%	4.4%	8.9%	6.2%
	Never	**12.7%**	17.7%	10.2%	15.5%	14.2%
	Unweighted n	2034	525	644	404	461

Table 9 | *Degree of harm from climate change*

How much do you think climate change will harm … ?

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
	Not at all	**18.8%**	22.0%	17.4%	20.9%	17.3%
	Only a little	**22.1%**	26.7%	22.2%	20.1%	24.4%
you personally	A moderate amount	**32.3%**	32.0%	34.7%	27.1%	36.3%
	A great deal	**15.6%**	10.6%	18.1%	13.0%	13.4%
	Don't know	**11.2%**	8.6%	7.6%	18.9%	8.6%
	Unweighted n	2095	540	662	417	476
	Not at all	**6.4%**	13.5%	5.3%	6.0%	7.9%
	Only a little	**8.2%**	6.2%	8.4%	8.3%	7.7%
future generations of people	A moderate amount	**17.4%**	17.4%	17.9%	15.8%	20.8%
	A great deal	**59.0%**	55.9%	60.6%	57.5%	56.3%
	Don't know	**9.1%**	7.0%	7.8%	12.3%	7.3%
	Unweighted n	1938	494	616	387	441

Table 10 | *Harm to community resources from climate change*

Which of the following resources in your community do you think may be harmed by climate change in the next several years? (Please check ALL THAT APPLY)

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Public water supplies	No	**43.0%**	49.1%	41.7%	42.6%	47.9%
	Yes	**57.0%**	50.9%	58.3%	57.4%	52.1%
	Unweighted n	2126	551	671	421	483
Public sewer systems	No	**61.8%**	67.8%	57.7%	67.4%	62.1%
	Yes	**38.2%**	32.2%	42.3%	32.6%	37.9%
	Unweighted n	2126	551	671	421	483
People's health	No	**33.1%**	39.7%	31.0%	33.4%	41.6%
	Yes	**66.9%**	60.3%	69.0%	66.6%	58.4%
	Unweighted n	2126	551	671	421	483
Transportation/roads/ bridges	No	**59.7%**	68.4%	60.2%	55.5%	65.1%
	Yes	**40.3%**	31.6%	39.8%	44.5%	34.9%
	Unweighted n	2126	551	671	421	483
Historical sites	No	**73.2%**	80.6%	71.5%	73.1%	78.9%
	Yes	**26.8%**	19.4%	28.5%	26.9%	21.1%
	Unweighted n	2126	551	671	421	483
Coastlines	No	**35.5%**	54.4%	35.1%	31.4%	33.2%
	Yes	**64.5%**	45.6%	64.9%	68.6%	66.8%
	Unweighted n	2126	551	671	421	483
Wetlands	No	**41.0%**	56.4%	40.5%	38.5%	35.7%
	Yes	**59.0%**	43.6%	59.5%	61.5%	64.3%
	Unweighted n	2126	551	671	421	483
Forests/wildlife	No	**38.0%**	44.2%	35.3%	40.7%	40.9%
	Yes	**62.0%**	55.8%	64.7%	59.3%	59.1%
	Unweighted n	2126	551	671	421	483
Agriculture	No	**30.3%**	35.1%	28.8%	31.6%	30.1%
	Yes	**69.7%**	64.9%	71.2%	68.4%	69.9%
	Unweighted n	2126	551	671	421	483
Private wells/septic systems	No	**61.2%**	68.5%	60.9%	60.8%	54.6%
	Yes	**38.8%**	31.5%	39.1%	39.2%	45.4%
	Unweighted n	2126	551	671	421	483

Table 10 Continued>>

Which of the following resources in your community do you think may be harmed by climate change in the next several years? (Please check ALL THAT APPLY)

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Privately owned land/buildings	No	**72.1%**	80.4%	72.7%	68.8%	71.9%
	Yes	**27.9%**	19.6%	27.3%	31.2%	28.1%
	Unweighted n	2126	551	671	421	483
There are no local risks from climate change	No	**88.3%**	85.2%	86.9%	91.6%	88.9%
	Yes	**11.7%**	14.8%	13.1%	8.4%	11.1%
	Unweighted n	2126	551	671	421	483

Table 11 | *Types of health problems affected by climate change*

Which — if any — of the following health problems will become more common in Maryland in the future because of climate change? (Please check ALL THAT APPLY)

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Respiratory and breathing problems	No	**31.8%**	34.7%	29.1%	34.0%	41.4%
	Yes	**68.2%**	65.3%	70.9%	66.0%	58.6%
	Unweighted n	2126	551	671	421	483
Infectious diseases such as West Nile virus	No	**59.5%**	66.7%	59.2%	57.5%	61.9%
	Yes	**40.5%**	33.3%	40.8%	42.5%	38.1%
	Unweighted n	2126	551	671	421	483
Heat stroke	No	**48.3%**	60.0%	46.9%	47.5%	48.6%
	Yes	**51.7%**	40.0%	53.1%	52.5%	51.4%
	Unweighted n	2126	551	671	421	483
Injuries from storms or other extreme weather events	No	**42.2%**	52.4%	41.1%	39.7%	50.5%
	Yes	**57.8%**	47.6%	58.9%	60.3%	49.5%
	Unweighted n	2126	551	671	421	483
Sunburn	No	**52.5%**	55.3%	50.4%	55.6%	51.6%
	Yes	**47.5%**	44.7%	49.6%	44.4%	48.4%
	Unweighted n	2126	551	671	421	483
Cancer	No	**52.3%**	55.4%	50.1%	55.8%	50.5%
	Yes	**47.7%**	44.6%	49.9%	44.2%	49.5%
	Unweighted n	2126	551	671	421	483

Data tables | Understanding household climate change health risks

Table 12 | *Perceived vulnerability to climate change health impacts*

How vulnerable — if at all — are the people living in your immediate household, including yourself, to potential health impacts of climate change?

	STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Not at all vulnerable	**15.3%**	14.5%	14.1%	17.7%	15.0%
Only a little vulnerable	**24.9%**	29.0%	27.7%	18.6%	25.5%
Moderately vulnerable	**32.0%**	30.2%	34.8%	27.8%	30.4%
Very vulnerable	**12.6%**	8.2%	13.0%	12.1%	17.4%
Don't believe there are potential climate change health impacts	**3.0%**	5.7%	2.5%	3.1%	3.2%
Don't know	**12.2%**	12.5%	7.8%	20.7%	8.5%
Unweighted n	2101	545	661	419	476

Table 13 | *Household health vulnerabilities by condition*

Has a doctor ever diagnosed you or another member of your household with the following conditions: (Please check ALL THAT APPLY)

		STATE	WESTERN	CENTRAL	SOUTHERN	EASTERN
Coronary heart disease	No	**90.9%**	88.3%	90.7%	93.4%	83.4%
	Yes	**9.1%**	11.7%	9.3%	6.6%	16.6%
	Unweighted n	2126	551	671	421	483
Obesity	No	**79.7%**	82.4%	79.8%	78.3%	82.3%
	Yes	**20.3%**	17.6%	20.2%	21.7%	17.7%
	Unweighted n	2126	551	671	421	483
Diabetes	No	**76.5%**	77.1%	78.1%	73.0%	78.6%
	Yes	**23.5%**	22.9%	21.9%	27.0%	21.4%
	Unweighted n	2126	551	671	421	483
Respiratory illness, including asthma	No	**69.0%**	72.2%	71.0%	62.8%	76.8%
	Yes	**31.0%**	27.8%	29.0%	37.2%	23.2%
	Unweighted n	2126	551	671	421	483
A physical or mental disability	No	**84.8%**	89.3%	85.4%	83.1%	82.2%
	Yes	**15.2%**	10.7%	14.6%	16.9%	17.8%
	Unweighted n	2126	551	671	421	483

Sample demographics

Region

	STATE unweighted sample (n)	STATE weighted %
Western Region	**551**	**8.4%**
Central Region	**671**	**55.4%**
Southern Region	**421**	**30.2%**
Eastern Region	**483**	**6.0%**
Total, unweighted n	**2126**	**2126**

Gender

	STATE unweighted sample (n)	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
Male	**814**	**48.5%**	50.0%	48.0%	49.0%	49.0%
Female	**1312**	**51.5%**	50.0%	52.0%	51.0%	51.0%
Totals, unweighted n	**2126**	**2126**	551	671	421	483

Age

	STATE unweighted sample (n)	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
18 to 24 years	**35**	**12.7%**	12.0%	12.0%	14.0%	14.0%
25 to 34 years	**213**	**17.2%**	15.5%	17.5%	18.0%	13.0%
35 to 44 years	**299**	**17.8%**	18.0%	17.5%	19.0%	15.0%
45 to 54 years	**490**	**20.3%**	21.0%	20.0%	21.0%	19.0%
55 to 64 years	**489**	**15.8%**	16.0%	16.0%	15.0%	17.0%
65 to 74 years	**377**	**8.9%**	9.0%	9.0%	8.0%	12.0%
75 to 84 years	**170**	**4.9%**	6.0%	5.0%	4.0%	7.0%
85 years and over	**53**	**2.4%**	2.5%	3.0%	1.0%	3.0%
Totals, unweighted n	**2126**	**2126**	551	671	421	483

Education

	STATE unweighted sample (n)	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
Less than high school	50	11.3%	11.5%	11.0%	11.5%	13.0%
High school or GED	621	45.5%	53.5%	41.0%	50.0%	54.0%
2-year associate's degree or trade school	395	6.4%	8.0%	6.0%	6.5%	7.0%
4-year college degree	492	20.2%	16.0%	22.0%	19.0%	15.0%
Advanced degree beyond 4-year degree	568	16.6%	11.0%	20.0%	13.0%	11.0%
Totals, unweighted n	2126	2126	551	671	421	483

Annual household income

	STATE unweighted sample (n)	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
Less than $10,000	87	12.8%	3.6%	13.8%	13.3%	13.5%
$10,000 — $29,999	260	12.6%	17.2%	11.9%	10.5%	23.6%
$30,000 — $49,999	300	16.1%	22.6%	15.1%	16.3%	15.6%
$50,000 — $69,999	306	14.2%	12.8%	15.8%	11.1%	17.7%
$70,000 — $89,999	265	12.2%	11.5%	10.8%	15.2%	10.9%
$90,000 — $109,999	219	9.1%	8.0%	8.4%	11.4%	6.6%
$110,000 — $129,999	170	6.9%	9.2%	6.3%	7.9%	4.4%
$130,000 — $149,999	107	4.4%	4.8%	3.8%	6.0%	1.1%
$150,000 or more	272	11.6%	10.4%	14.1%	8.4%	6.5%
Totals, unweighted n	1986	1986	512	628	401	445

Ethnicity

	STATE unweighted sample (n)	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
Hispanic or Latino	57	4.4%	4.2%	4.1%	5.6%	1.1%
Not Hispanic or Latino	1966	95.6%	95.8%	95.9%	94.4%	98.9%
Totals, unweighted n	2023	2023	527	639	401	456

Race

	STATE unweighted sample (n)	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
Asian	77	4.8%	2.7%	6.8%	2.1%	4.1%
Black or African American	317	19.9%	10.4%	19.4%	24.6%	14.7%
Native Hawaiian or other Pacific Islander	4	0.4%	0.0%	0.7%	0.0%	0.0%
White	1584	68.9%	83.7%	65.2%	69.1%	79.7%
American Indian or Alaska Native	6	0.2%	0.0%	0.0%	0.6%	0.3%
Two or more races	80	5.8%	3.2%	7.9%	3.6%	1.3%
Totals, unweighted n	2068	2068	541	642	410	475

Children in household

		STATE unweighted sample (n)	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
	0	1427	62.1%	60.9%	59.2%	66.8%	67.2%
	1	280	15.2%	12.3%	15.0%	16.8%	13.9%
	2	255	15.3%	15.9%	17.6%	11.2%	13.8%
How many people under 18 years of age are currently living in your household?	3	92	5.8%	7.4%	6.7%	4.5%	2.6%
	4	16	0.7%	2.6%	0.5%	0.5%	0.6%
	5	10	0.6%	0.9%	0.9%	0.0%	0.7%
	6	3	0.1%	0.0%	0.1%	0.1%	1.1%
	7	2	0.1%	0.0%	0.0%	0.1%	0.0%
	Totals, unweighted n	2085	2085	544	656	408	477

Political ideology

		STATE unweighted sample (n)	STATE weighted %	WESTERN weighted %	CENTRAL weighted %	SOUTHERN weighted %	EASTERN weighted %
Generally speaking, do you think of yourself as politically …	Very conservative	231	9.4%	16.1%	9.2%	7.6%	11.1%
	Somewhat conservative	468	22.2%	20.1%	22.0%	23.1%	23.0%
	Moderate, middle of the road	810	42.6%	48.1%	39.0%	46.5%	47.9%
	Somewhat liberal	373	16.3%	11.1%	18.6%	14.3%	12.5%
	Very liberal	191	9.5%	4.6%	11.2%	8.6%	5.5%
	Totals, unweighted n	2073	2073	532	656	416	469