



# Public Health, Energy & Climate Change

*A Survey of Maryland Residents | Summer 2013*



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*Credits, cover photos (clockwise from upper left):*

Hurricane Isabel, National Aeronautics and Space Administration (NASA)

Wind farm, White Construction, Inc., Infrastructure & Energy Alternatives

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Homeowner installing programmable thermostat, U.S. Department of Energy

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STATE OF MARYLAND

DHMH

## Maryland Department of Health and Mental Hygiene

201 W. Preston Street • Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

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<sup>1</sup>.
- 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<sup>2</sup>. 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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<sup>1</sup> 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.

<sup>2</sup> **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)<sup>3</sup>. 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.<sup>4</sup> 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)

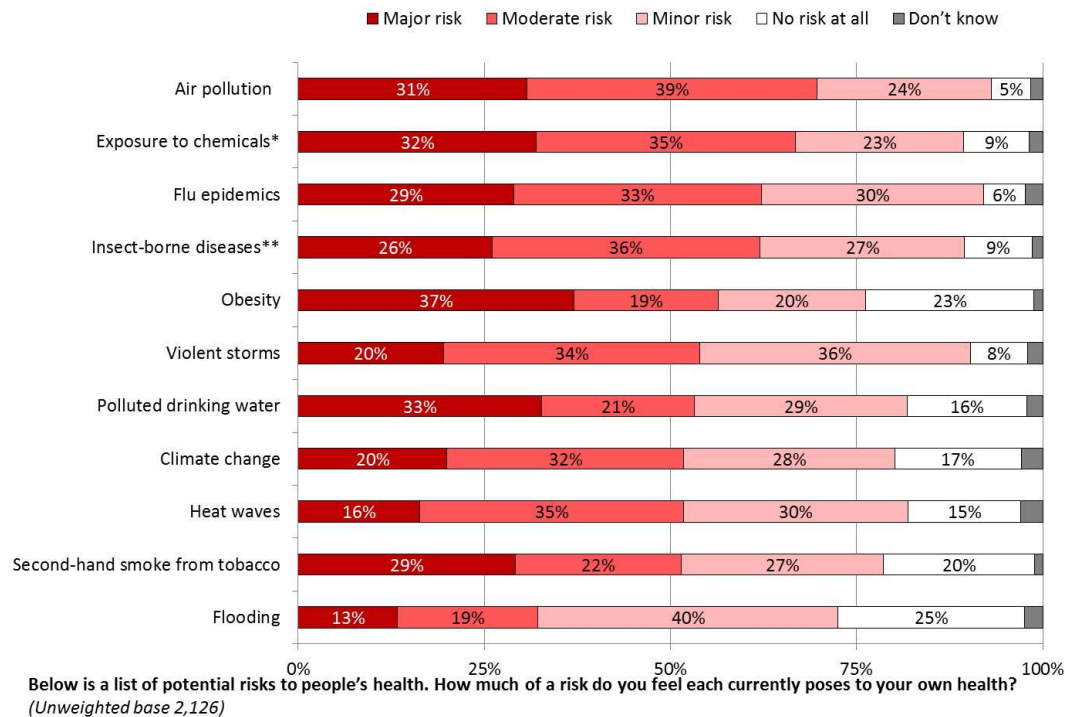
People in Maryland say that violent storms and climate change are also on the rise as health problems in their community. Fifty-two percent of residents say storms are becoming a more serious health problem, and 48% say climate change is increasingly a risk. Concerns over both are highest in the Southern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

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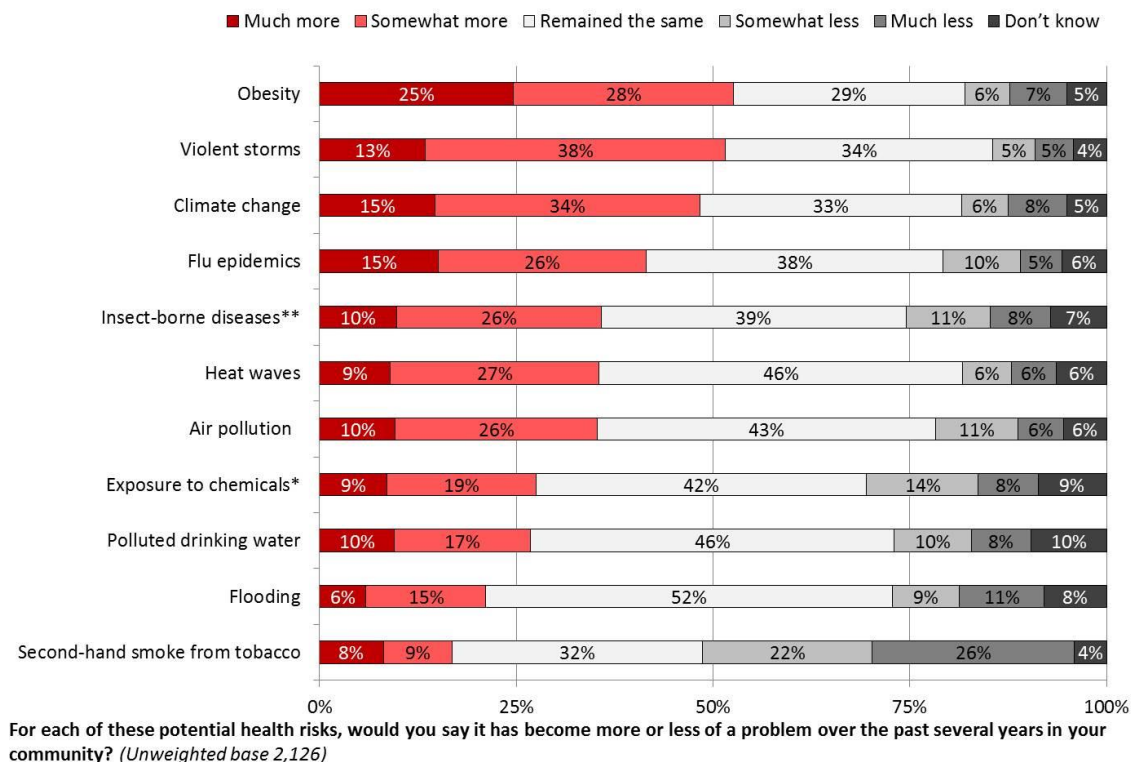
<sup>3</sup> **Western Region** – Allegany, Frederick, Garrett and Washington counties; **Central Region** – Baltimore, Carroll, Cecil, Harford, Howard, Montgomery counties and Baltimore City; **Southern Region** – Anne Arundel, Calvert, Charles, Prince George's and St. Mary's counties; **Eastern Region**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

<sup>4</sup> 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**



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



\* 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)

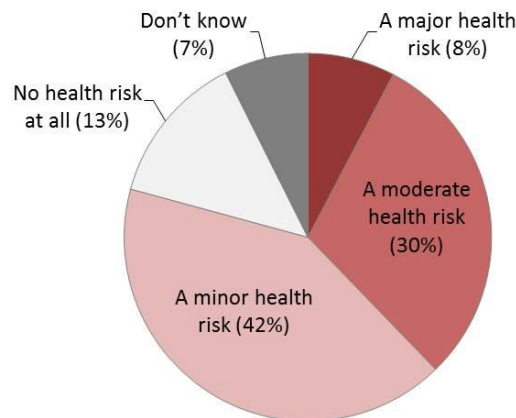
### **A majority of Marylanders stock their homes in preparation**

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**

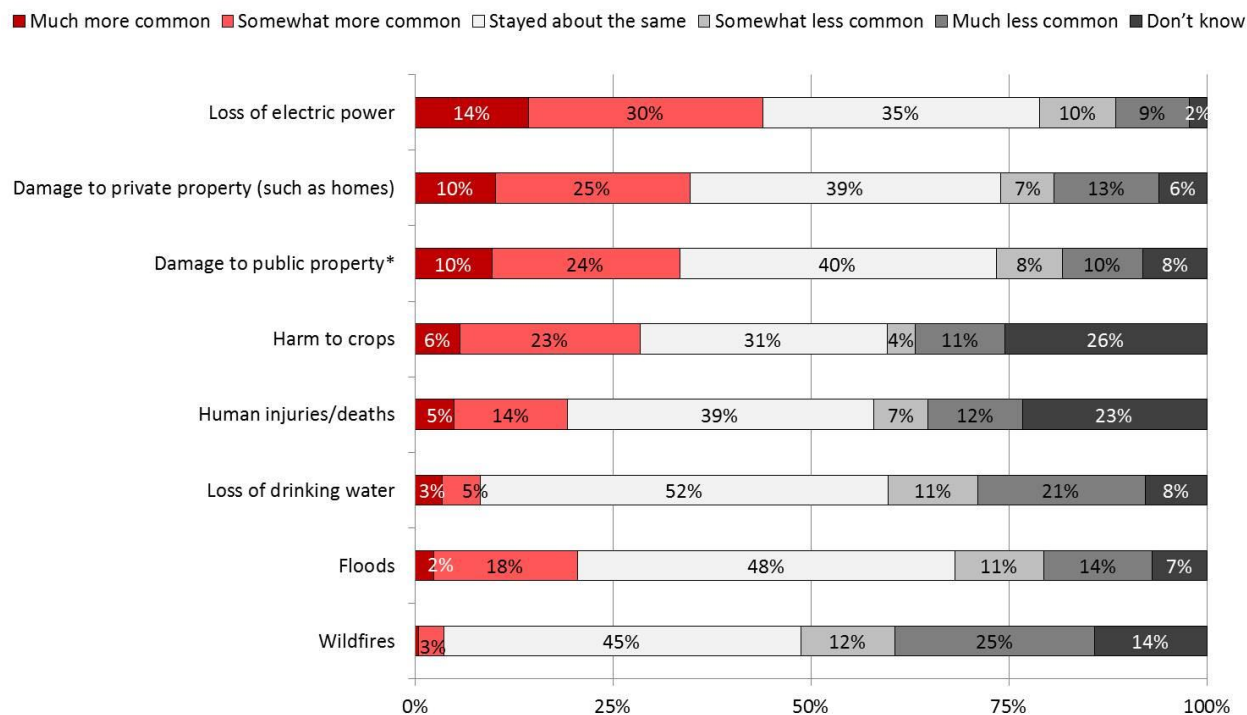
Large majorities of Marylanders feel their state and local government should make a high priority of protecting public water supplies (86%) and people’s health (80%) from extreme weather events and other environmental threats. Generally, protecting public and economic resources – not only water, but 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)

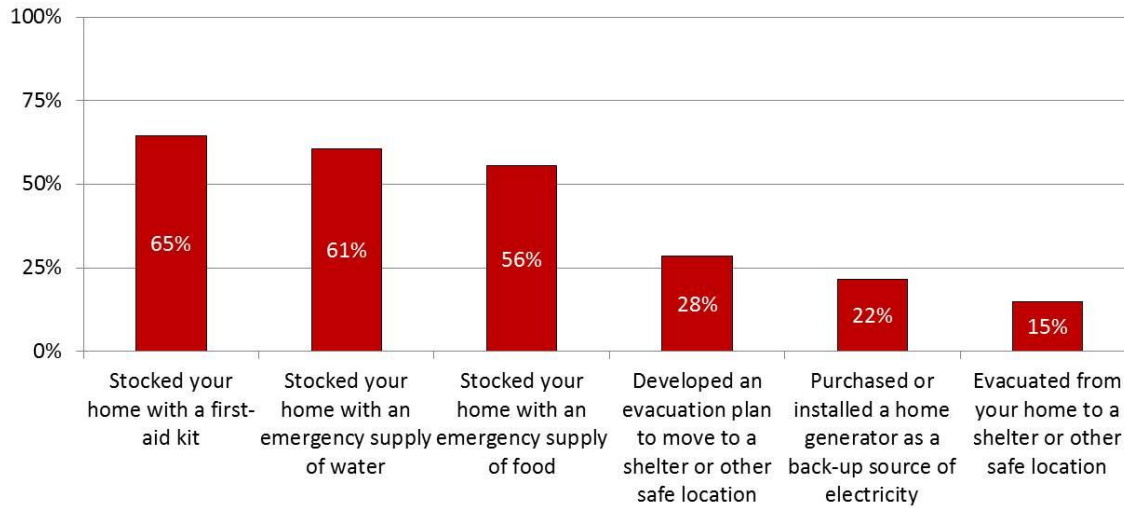
**Figure 4 | Changes in community harms from extreme weather**



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)

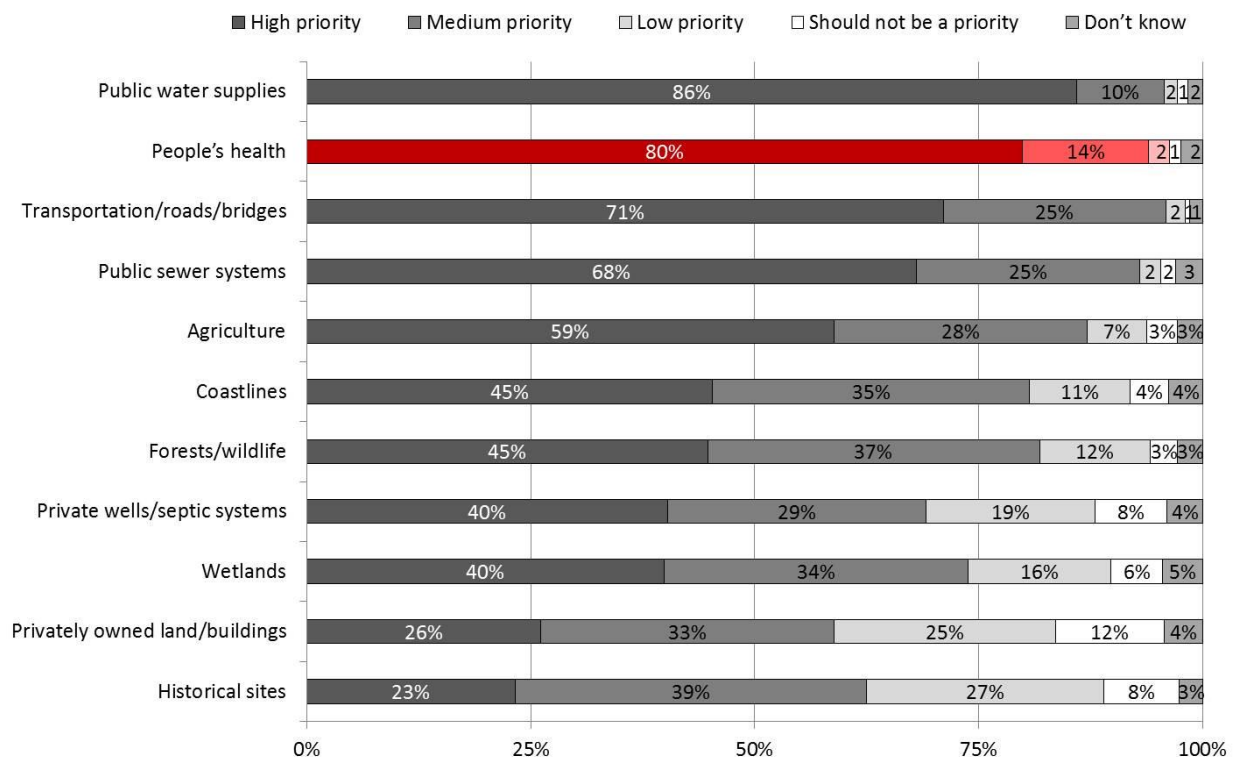
\*Damage to public property (such as roads, government buildings, and parks)

**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)

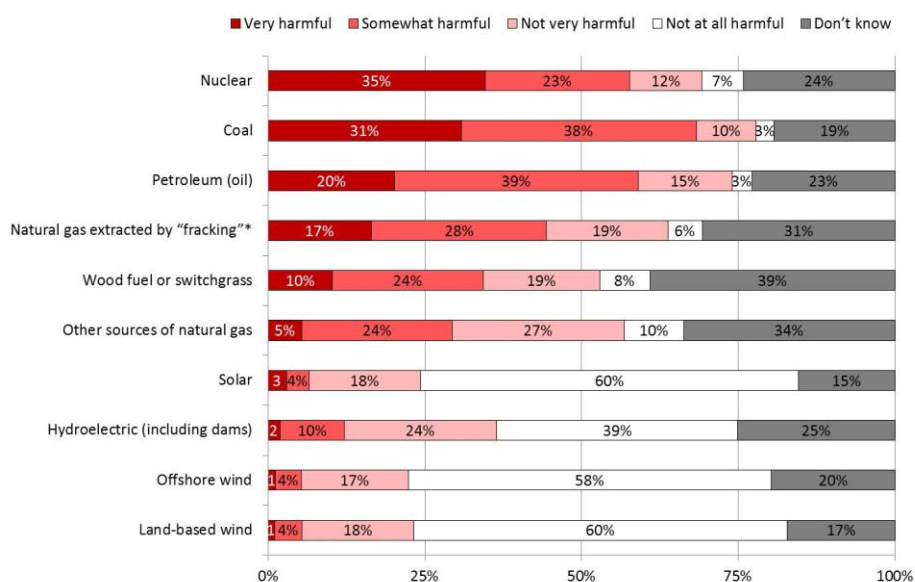
### 3. Renewable energy sources are seen as healthier

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<sup>5</sup>. 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.<sup>6</sup>

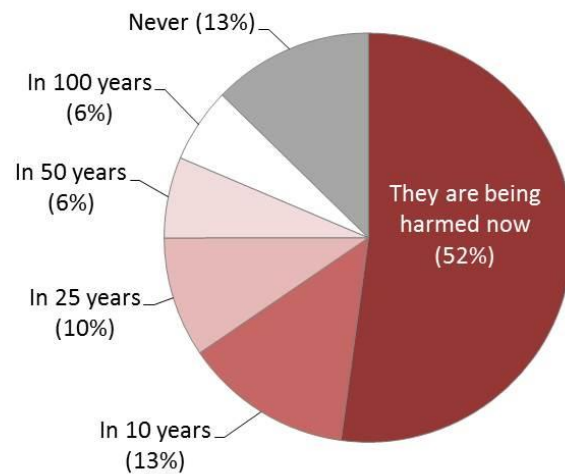
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<sup>5</sup> Leiserowitz, A., Maibach, E., Roser-Renouf, C., Feinberg, G., & Howe, P. (2013) *Climate change in the American mind: Americans’ global warming beliefs and attitudes in April, 2013*. Yale University and George Mason University. New Haven,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

<sup>6</sup> 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.



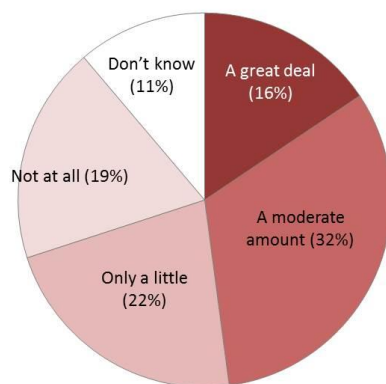
**Figure 8 |** *When climate change will harm people in U.S.*



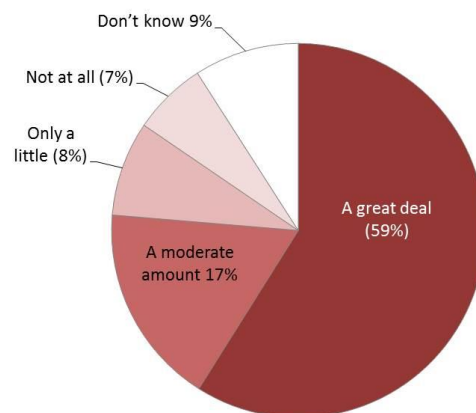
When do you think climate change will start to harm people in the United States? (Unweighted base 2,126)

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

you personally

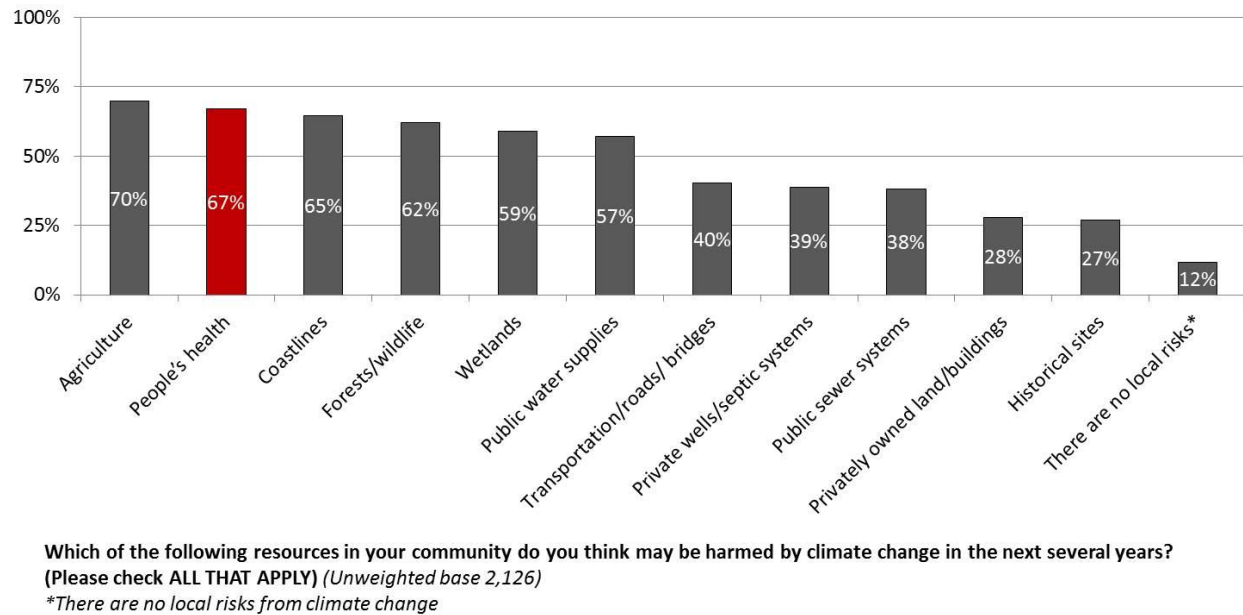


future generations of people

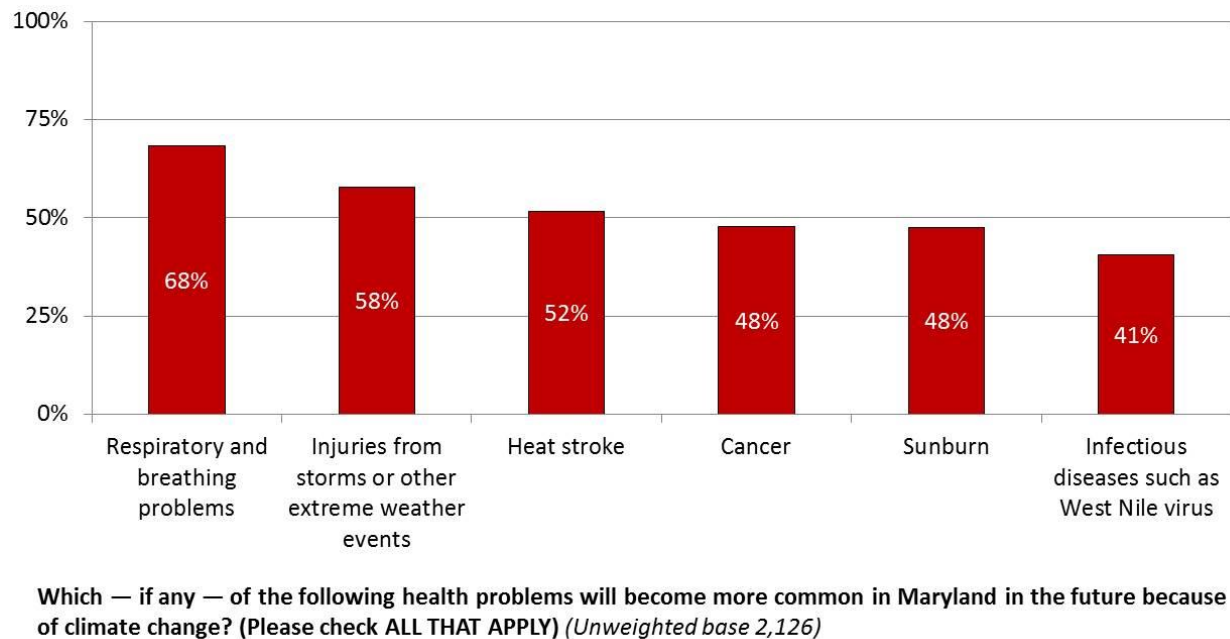


How much do you think climate change will harm ... ? (Unweighted base 2,126)

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



**Figure 11 | Perceived types of health problems affected by climate change**



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

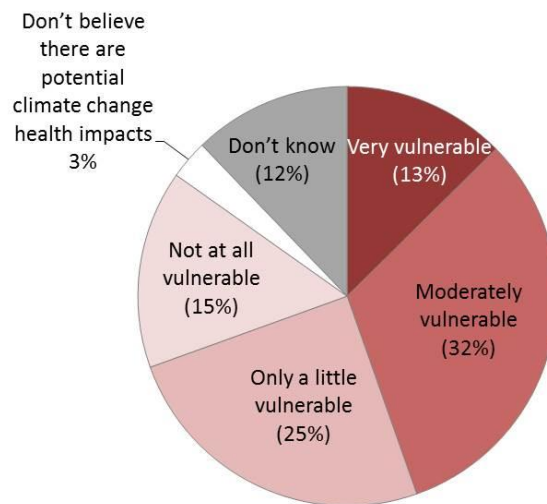
Fewer than one-in-five Marylanders (18%) feel they – and others in their household – are not at all vulnerable to the potential health effects of climate change. Conversely, a large majority of respondents say people in their household are at least a little vulnerable (70%), and nearly half (45%) say 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<sup>7</sup>. 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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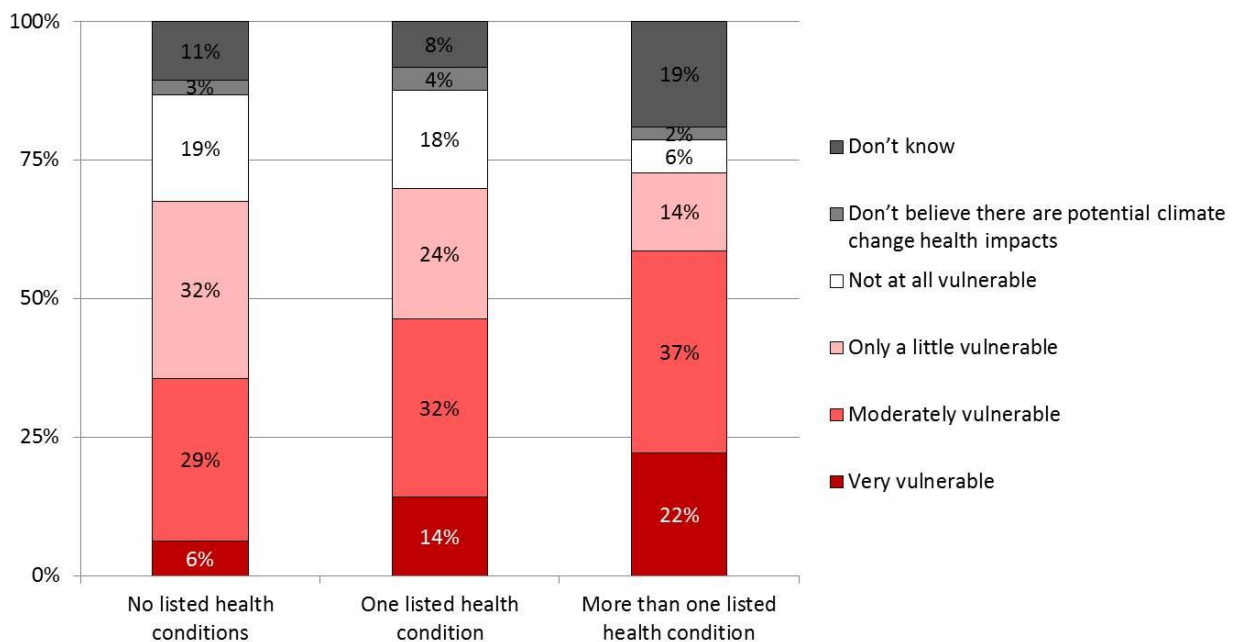
<sup>7</sup> Balbus, J., Frumkin, H., Hayden, M., Hess, J., McGeehin, M., & Sheats, N. (2013). Chapter 9. Human health. Draft National Climate Assessment. National Climate Assessment and Development Advisory Committee. U.S. Global Change Research Program. Retrieved from <http://ncadac.globalchange.gov/>

**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://climatechangecommunication.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   |
|-----------------|---|----------------|----------|-------------------------|------------------------|---------------|-------------------|
| <b>Western</b>  | Allegany, Frederick, Garrett, Washington  | 1,467          | 11       | 97                      | 551                    | 43%           | +/- 4.17 % points |
| <b>Central</b>  | Baltimore, Carroll, Cecil, Harford, Howard, Montgomery, Baltimore City          | 2,000          | 14       | 110                     | 671                    | 38%           | +/- 3.78 % points |
| <b>Southern</b> | Anne Arundel, Calvert, Charles, Prince George's, St. Mary's                     | 1,467          | 5        | 90                      | 421                    | 33%           | +/- 4.78 % points |
| <b>Eastern</b>  | Caroline, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico, Worcester | 1,467          | 9        | 180                     | 483                    | 40%           | +/- 4.46 % points |
| <b>State</b>    | 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 | <b>20.3%</b> | 22.1%   | 21.1%   | 18.5%    | 19.7%   |
|   | Minor risk     | <b>27.1%</b> | 28.4%   | 25.7%   | 28.4%    | 31.9%   |
|   | Moderate risk  | <b>22.3%</b> | 24.4%   | 23.0%   | 20.5%    | 23.1%   |
|   | Major risk     | <b>29.1%</b> | 24.4%   | 28.6%   | 32.1%    | 24.8%   |
|   | Don't know     | <b>1.1%</b>  | 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 | <b>8.8%</b>  | 6.7%    | 10.2%   | 7.3%     | 6.4%    |
|   | Minor risk     | <b>22.6%</b> | 30.5%   | 21.8%   | 21.5%    | 24.7%   |
|   | Moderate risk  | <b>34.8%</b> | 30.8%   | 34.0%   | 37.5%    | 33.4%   |
|   | Major risk     | <b>32.0%</b> | 29.3%   | 32.1%   | 32.1%    | 34.3%   |
|   | Don't know     | <b>1.8%</b>  | 2.7%    | 1.9%    | 1.5%     | 1.3%    |
|   | Unweighted n   | 2090         | 543     | 664     | 415      | 468     |
| Air pollution   | No risk at all | <b>5.3%</b>  | 4.7%    | 5.3%    | 4.9%     | 8.6%    |
|   | Minor risk     | <b>23.5%</b> | 28.2%   | 22.4%   | 22.6%    | 31.1%   |
|   | Moderate risk  | <b>38.9%</b> | 39.1%   | 35.5%   | 46.0%    | 33.6%   |
|   | Major risk     | <b>30.8%</b> | 24.9%   | 35.4%   | 25.4%    | 23.9%   |
|   | Don't know     | <b>1.6%</b>  | 3.1%    | 1.4%    | 1.1%     | 2.7%    |
|   | Unweighted n   | 2091         | 546     | 658     | 414      | 473     |
| Heat waves  | No risk at all | <b>15.1%</b> | 19.5%   | 15.7%   | 13.7%    | 11.3%   |
|   | Minor risk     | <b>30.1%</b> | 34.4%   | 29.4%   | 29.8%    | 33.1%   |
|   | Moderate risk  | <b>35.4%</b> | 28.0%   | 34.5%   | 38.7%    | 37.4%   |
|   | Major risk     | <b>16.3%</b> | 12.5%   | 17.5%   | 15.4%    | 15.8%   |
|   | Don't know     | <b>3.0%</b>  | 5.7%    | 3.0%    | 2.4%     | 2.3%    |
|   | Unweighted n   | 2092         | 545     | 663     | 412      | 472     |
| Violent storms  | No risk at all | <b>7.7%</b>  | 10.3%   | 8.3%    | 5.7%     | 9.4%    |
|   | Minor risk     | <b>36.4%</b> | 40.7%   | 36.3%   | 36.3%    | 31.4%   |
|   | Moderate risk  | <b>34.4%</b> | 28.7%   | 33.4%   | 37.7%    | 35.8%   |
|   | Major risk     | <b>19.5%</b> | 16.2%   | 20.2%   | 18.6%    | 21.3%   |
|   | Don't know     | <b>2.0%</b>  | 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 | <b>22.6%</b> | 24.3%   | 24.7%   | 18.4%    | 22.1%   |
|   | Minor risk     | <b>19.8%</b> | 14.2%   | 19.6%   | 22.3%    | 17.3%   |
|   | Moderate risk  | <b>19.4%</b> | 29.2%   | 16.8%   | 21.4%    | 18.5%   |
|   | Major risk     | <b>37.0%</b> | 30.1%   | 37.4%   | 37.4%    | 41.2%   |
|   | Don't know     | <b>1.2%</b>  | 2.2%    | 1.4%    | 0.6%     | 0.9%    |
|   | Unweighted n   | 2073         | 540     | 655     | 410      | 468     |
| Polluted drinking water   | No risk at all | <b>16.1%</b> | 16.0%   | 18.3%   | 11.5%    | 18.4%   |
|   | Minor risk     | <b>28.5%</b> | 26.6%   | 25.8%   | 34.8%    | 25.2%   |
|   | Moderate risk  | <b>20.5%</b> | 25.2%   | 20.9%   | 19.0%    | 17.6%   |
|   | Major risk     | <b>32.7%</b> | 31.0%   | 32.9%   | 32.5%    | 34.9%   |
|   | Don't know     | <b>2.1%</b>  | 1.2%    | 2.0%    | 2.2%     | 3.8%    |
|   | Unweighted n   | 2086         | 543     | 661     | 409      | 473     |
| Flu epidemics   | No risk at all | <b>5.7%</b>  | 7.2%    | 6.8%    | 3.2%     | 5.3%    |
|   | Minor risk     | <b>29.8%</b> | 34.2%   | 29.8%   | 27.5%    | 34.2%   |
|   | Moderate risk  | <b>33.3%</b> | 31.8%   | 34.0%   | 31.7%    | 37.5%   |
|   | Major risk     | <b>29.0%</b> | 25.8%   | 27.8%   | 33.3%    | 22.4%   |
|   | Don't know     | <b>2.3%</b>  | 1.1%    | 1.6%    | 4.3%     | 0.5%    |
|   | Unweighted n   | 2092         | 545     | 663     | 411      | 473     |
| Climate change  | No risk at all | <b>17.0%</b> | 22.4%   | 18.4%   | 13.4%    | 15.2%   |
|   | Minor risk     | <b>28.3%</b> | 25.9%   | 29.1%   | 26.6%    | 32.2%   |
|   | Moderate risk  | <b>31.8%</b> | 29.8%   | 28.8%   | 38.0%    | 31.6%   |
|   | Major risk     | <b>20.0%</b> | 18.9%   | 20.9%   | 19.1%    | 17.4%   |
|   | Don't know     | <b>2.9%</b>  | 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 | <b>9.1%</b>  | 9.5%    | 9.9%    | 7.5%     | 9.5%    |
|   | Minor risk     | <b>27.4%</b> | 31.3%   | 28.7%   | 23.9%    | 27.4%   |
|   | Moderate risk  | <b>36.0%</b> | 32.9%   | 36.6%   | 37.2%    | 29.9%   |
|   | Major risk     | <b>26.0%</b> | 25.2%   | 23.6%   | 30.2%    | 29.1%   |
|   | Don't know     | <b>1.4%</b>  | 1.1%    | 1.3%    | 1.2%     | 4.2%    |
|   | Unweighted n   | 2098         | 545     | 663     | 412      | 478     |
| Flooding  | No risk at all | <b>25.1%</b> | 39.8%   | 26.4%   | 20.0%    | 18.1%   |
|   | Minor risk     | <b>40.3%</b> | 33.5%   | 40.1%   | 43.1%    | 36.8%   |
|   | Moderate risk  | <b>18.9%</b> | 13.5%   | 17.7%   | 20.9%    | 27.7%   |
|   | Major risk     | <b>13.3%</b> | 11.3%   | 13.8%   | 12.7%    | 14.2%   |
|   | Don't know     | <b>2.4%</b>  | 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         | <b>25.7%</b> | 25.5%   | 26.9%   | 23.6%    | 26.6%   |
|   | Somewhat less     | <b>21.5%</b> | 23.5%   | 20.0%   | 21.3%    | 33.3%   |
|   | Remained the same | <b>31.8%</b> | 34.0%   | 32.5%   | 31.5%    | 24.2%   |
|   | Somewhat more     | <b>8.7%</b>  | 7.4%    | 7.9%    | 11.2%    | 5.5%    |
|   | Much more         | <b>8.1%</b>  | 5.6%    | 9.2%    | 7.2%     | 6.7%    |
|   | Don't know        | <b>4.1%</b>  | 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         | <b>7.6%</b>  | 5.2%    | 9.7%    | 4.3%     | 8.2%    |
|   | Somewhat less     | <b>14.2%</b> | 13.5%   | 13.8%   | 14.5%    | 16.5%   |
|   | Remained the same | <b>42.0%</b> | 42.8%   | 40.5%   | 45.0%    | 39.3%   |
|   | Somewhat more     | <b>18.9%</b> | 22.8%   | 18.5%   | 18.9%    | 16.9%   |
|   | Much more         | <b>8.6%</b>  | 8.0%    | 9.2%    | 7.1%     | 10.8%   |
|   | Don't know        | <b>8.7%</b>  | 7.8%    | 8.2%    | 10.1%    | 8.3%    |
|   | Unweighted n      | 2098         | 547     | 662     | 415      | 474     |
| Air pollution   | Much less         | <b>5.7%</b>  | 6.8%    | 7.2%    | 2.4%     | 7.6%    |
|   | Somewhat less     | <b>10.5%</b> | 11.7%   | 11.2%   | 8.5%     | 11.9%   |
|   | Remained the same | <b>43.0%</b> | 49.2%   | 40.6%   | 45.2%    | 45.2%   |
|   | Somewhat more     | <b>25.6%</b> | 18.3%   | 24.8%   | 30.4%    | 19.6%   |
|   | Much more         | <b>9.6%</b>  | 9.1%    | 11.2%   | 7.2%     | 8.2%    |
|   | Don't know        | <b>5.5%</b>  | 4.8%    | 5.0%    | 6.3%     | 7.4%    |
|   | Unweighted n      | 2096         | 546     | 659     | 414      | 477     |
| Heat waves  | Much less         | <b>5.7%</b>  | 6.8%    | 6.3%    | 4.4%     | 5.1%    |
|   | Somewhat less     | <b>6.2%</b>  | 15.6%   | 4.8%    | 6.1%     | 6.5%    |
|   | Remained the same | <b>46.3%</b> | 43.4%   | 44.4%   | 49.3%    | 52.1%   |
|   | Somewhat more     | <b>26.5%</b> | 23.2%   | 25.6%   | 29.2%    | 25.5%   |
|   | Much more         | <b>9.0%</b>  | 4.6%    | 11.3%   | 6.4%     | 6.8%    |
|   | Don't know        | <b>6.4%</b>  | 6.4%    | 7.6%    | 4.6%     | 4.1%    |
|   | Unweighted n      | 2092         | 544     | 659     | 414      | 475     |

Table 2 Continued>>

Table 2 Continued&gt;&gt;

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

Table 2 Continued&gt;&gt;

Table 2 Continued&gt;&gt;

**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,<br>like West Nile virus and<br>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  | <b>13.4%</b> | 14.8%   | 13.5%   | 12.9%    | 11.9%   |
| A minor health risk    | <b>41.5%</b> | 42.3%   | 39.2%   | 46.9%    | 34.4%   |
| A moderate health risk | <b>30.1%</b> | 31.8%   | 31.1%   | 26.8%    | 34.9%   |
| A major health risk    | <b>7.7%</b>  | 4.3%    | 10.2%   | 3.4%     | 10.4%   |
| Don't know             | <b>7.4%</b>  | 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>>



Table 4 Continued&gt;&gt;

**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      | <b>13.2%</b> | 14.1%   | 13.9%   | 11.8%    | 12.4%   |
|  | Somewhat less common  | <b>6.7%</b>  | 7.1%    | 6.8%    | 6.1%     | 7.3%    |
|  | Stayed about the same | <b>39.3%</b> | 38.2%   | 37.8%   | 41.8%    | 42.0%   |
|  | Somewhat more common  | <b>24.6%</b> | 24.7%   | 25.0%   | 23.3%    | 27.8%   |
|  | Much more common      | <b>10.1%</b> | 10.2%   | 11.8%   | 7.5%     | 8.1%    |
|  | Don't know            | <b>6.1%</b>  | 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      | <b>10.1%</b> | 11.2%   | 11.6%   | 7.4%     | 7.4%    |
|  | Somewhat less common  | <b>8.4%</b>  | 7.7%    | 7.7%    | 10.5%    | 5.1%    |
|  | Stayed about the same | <b>40.0%</b> | 40.4%   | 37.5%   | 43.3%    | 45.4%   |
|  | Somewhat more common  | <b>23.7%</b> | 22.6%   | 25.0%   | 20.5%    | 29.4%   |
|  | Much more common      | <b>9.7%</b>  | 10.8%   | 11.4%   | 6.6%     | 8.7%    |
|  | Don't know            | <b>8.1%</b>  | 7.3%    | 6.8%    | 11.7%    | 3.9%    |
|  | Unweighted n          | 2117         | 551     | 666     | 418      | 482     |
| Harm to crops  | Much less common      | <b>11.3%</b> | 8.0%    | 13.3%   | 10.3%    | 2.6%    |
|  | Somewhat less common  | <b>3.6%</b>  | 3.8%    | 3.5%    | 3.4%     | 5.2%    |
|  | Stayed about the same | <b>31.2%</b> | 38.7%   | 33.0%   | 23.9%    | 40.4%   |
|  | Somewhat more common  | <b>22.7%</b> | 24.6%   | 19.8%   | 26.4%    | 27.9%   |
|  | Much more common      | <b>5.7%</b>  | 11.0%   | 5.0%    | 3.4%     | 15.9%   |
|  | Don't know            | <b>25.5%</b> | 14.0%   | 25.4%   | 32.6%    | 7.8%    |
|  | Unweighted n          | 2102         | 547     | 660     | 418      | 477     |
| Human injuries/deaths  | Much less common      | <b>11.9%</b> | 11.8%   | 14.2%   | 7.7%     | 12.4%   |
|  | Somewhat less common  | <b>6.9%</b>  | 6.4%    | 5.5%    | 9.5%     | 7.0%    |
|  | Stayed about the same | <b>38.7%</b> | 45.0%   | 40.4%   | 31.2%    | 51.5%   |
|  | Somewhat more common  | <b>14.3%</b> | 12.7%   | 15.5%   | 12.6%    | 13.7%   |
|  | Much more common      | <b>4.9%</b>  | 8.2%    | 5.3%    | 3.5%     | 2.9%    |
|  | Don't know            | <b>23.3%</b> | 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          | <b>64.5%</b> | 66.5%   | 63.6%   | 65.2%    | 67.3%   |
|   | No           | <b>34.5%</b> | 32.1%   | 35.4%   | 33.9%    | 32.6%   |
|   | Don't know   | <b>1.0%</b>  | 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          | <b>60.7%</b> | 60.8%   | 60.6%   | 59.8%    | 67.0%   |
|   | No           | <b>38.5%</b> | 38.8%   | 38.6%   | 39.4%    | 32.8%   |
|   | Don't know   | <b>0.8%</b>  | 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          | <b>55.5%</b> | 58.1%   | 58.5%   | 49.0%    | 56.1%   |
|   | No           | <b>43.7%</b> | 41.4%   | 40.8%   | 50.1%    | 42.3%   |
|   | Don't know   | <b>0.8%</b>  | 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          | <b>21.6%</b> | 22.1%   | 21.5%   | 21.6%    | 21.2%   |
|   | No           | <b>77.7%</b> | 77.3%   | 78.0%   | 77.7%    | 76.1%   |
|   | Don't know   | <b>0.7%</b>  | 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          | <b>28.4%</b> | 24.6%   | 31.4%   | 23.3%    | 31.0%   |
|   | No           | <b>69.8%</b> | 74.4%   | 66.5%   | 75.5%    | 66.2%   |
|   | Don't know   | <b>1.8%</b>  | 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          | <b>14.9%</b> | 9.2%    | 17.4%   | 11.7%    | 16.0%   |
|   | No           | <b>83.6%</b> | 89.7%   | 80.8%   | 87.1%    | 83.1%   |
|   | Don't know   | <b>1.5%</b>  | 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/<br>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&gt;&gt;

| 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<br>by hydraulic fracturing<br>("fracking") in<br>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<br>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&gt;&gt;

| 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 | <b>59.6%</b> | 50.3%   | 56.3%   | 67.0%    | 65.2%   |
|   | Not very harmful   | <b>17.8%</b> | 17.4%   | 20.0%   | 13.7%    | 19.0%   |
|   | Somewhat harmful   | <b>4.4%</b>  | 4.5%    | 6.0%    | 2.1%     | 1.3%    |
|   | Very harmful       | <b>1.0%</b>  | 2.2%    | 1.0%    | 0.7%     | 1.5%    |
|   | Don't know         | <b>17.2%</b> | 25.6%   | 16.7%   | 16.4%    | 13.0%   |
|   | Unweighted n       | 2079         | 535     | 660     | 414      | 470     |
| Nuclear   | Not at all harmful | <b>6.6%</b>  | 8.4%    | 5.2%    | 8.2%     | 9.4%    |
|   | Not very harmful   | <b>11.5%</b> | 9.8%    | 12.1%   | 10.9%    | 11.1%   |
|   | Somewhat harmful   | <b>23.1%</b> | 17.0%   | 25.8%   | 20.2%    | 20.7%   |
|   | Very harmful       | <b>34.6%</b> | 26.5%   | 32.1%   | 41.0%    | 36.0%   |
|   | Don't know         | <b>24.2%</b> | 38.2%   | 24.8%   | 19.7%    | 22.8%   |
|   | Unweighted n       | 2064         | 533     | 653     | 413      | 465     |
| Solar   | Not at all harmful | <b>60.3%</b> | 58.4%   | 56.7%   | 66.0%    | 66.9%   |
|   | Not very harmful   | <b>17.8%</b> | 11.8%   | 19.0%   | 17.1%    | 18.4%   |
|   | Somewhat harmful   | <b>3.6%</b>  | 2.6%    | 5.2%    | 1.4%     | 2.0%    |
|   | Very harmful       | <b>2.9%</b>  | 1.9%    | 4.4%    | 0.9%     | 0.7%    |
|   | Don't know         | <b>15.4%</b> | 25.4%   | 14.7%   | 14.6%    | 12.0%   |
|   | Unweighted n       | 2077         | 532     | 663     | 416      | 466     |
| Hydroelectric<br>(including dams)   | Not at all harmful | <b>38.5%</b> | 39.7%   | 35.3%   | 43.3%    | 40.9%   |
|   | Not very harmful   | <b>24.4%</b> | 20.9%   | 24.3%   | 24.6%    | 28.0%   |
|   | Somewhat harmful   | <b>10.2%</b> | 6.6%    | 12.5%   | 8.0%     | 6.3%    |
|   | Very harmful       | <b>1.9%</b>  | 4.1%    | 1.9%    | 1.4%     | 0.5%    |
|   | Don't know         | <b>25.1%</b> | 28.8%   | 26.0%   | 22.6%    | 24.3%   |
|   | Unweighted n       | 2075         | 536     | 659     | 416      | 464     |
| Wood fuel or<br>switchgrass   | Not at all harmful | <b>8.1%</b>  | 6.8%    | 7.9%    | 7.0%     | 17.9%   |
|   | Not very harmful   | <b>18.6%</b> | 21.8%   | 18.7%   | 16.5%    | 25.2%   |
|   | Somewhat harmful   | <b>24.1%</b> | 24.0%   | 21.9%   | 28.7%    | 21.5%   |
|   | Very harmful       | <b>10.2%</b> | 7.2%    | 8.8%    | 14.9%    | 2.9%    |
|   | Don't know         | <b>39.0%</b> | 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  | <b>52.1%</b> | 48.1%   | 57.5%   | 44.0%    | 49.2%   |
| In 10 years  | <b>13.3%</b> | 13.5%   | 10.7%   | 17.9%    | 14.7%   |
| In 25 years  | <b>9.5%</b>  | 10.3%   | 9.8%    | 9.1%     | 8.0%    |
| In 50 years  | <b>6.4%</b>  | 5.3%    | 7.4%    | 4.7%     | 7.5%    |
| In 100 years   | <b>5.9%</b>  | 5.1%    | 4.4%    | 8.9%     | 6.2%    |
| Never  | <b>12.7%</b> | 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 |
| you personally                                       | 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%   |
|  | 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     |
| future generations of people                         | 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%    |
|  | 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           | <b>43.0%</b> | 49.1%   | 41.7%   | 42.6%    | 47.9%   |
|                                  | Yes          | <b>57.0%</b> | 50.9%   | 58.3%   | 57.4%    | 52.1%   |
|                                  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Public sewer systems             | No           | <b>61.8%</b> | 67.8%   | 57.7%   | 67.4%    | 62.1%   |
|                                  | Yes          | <b>38.2%</b> | 32.2%   | 42.3%   | 32.6%    | 37.9%   |
|                                  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| People's health                  | No           | <b>33.1%</b> | 39.7%   | 31.0%   | 33.4%    | 41.6%   |
|                                  | Yes          | <b>66.9%</b> | 60.3%   | 69.0%   | 66.6%    | 58.4%   |
|                                  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Transportation/roads/<br>bridges | No           | <b>59.7%</b> | 68.4%   | 60.2%   | 55.5%    | 65.1%   |
|                                  | Yes          | <b>40.3%</b> | 31.6%   | 39.8%   | 44.5%    | 34.9%   |
|                                  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Historical sites                 | No           | <b>73.2%</b> | 80.6%   | 71.5%   | 73.1%    | 78.9%   |
|                                  | Yes          | <b>26.8%</b> | 19.4%   | 28.5%   | 26.9%    | 21.1%   |
|                                  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Coastlines                       | No           | <b>35.5%</b> | 54.4%   | 35.1%   | 31.4%    | 33.2%   |
|                                  | Yes          | <b>64.5%</b> | 45.6%   | 64.9%   | 68.6%    | 66.8%   |
|                                  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Wetlands                         | No           | <b>41.0%</b> | 56.4%   | 40.5%   | 38.5%    | 35.7%   |
|                                  | Yes          | <b>59.0%</b> | 43.6%   | 59.5%   | 61.5%    | 64.3%   |
|                                  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Forests/wildlife                 | No           | <b>38.0%</b> | 44.2%   | 35.3%   | 40.7%    | 40.9%   |
|                                  | Yes          | <b>62.0%</b> | 55.8%   | 64.7%   | 59.3%    | 59.1%   |
|                                  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Agriculture                      | No           | <b>30.3%</b> | 35.1%   | 28.8%   | 31.6%    | 30.1%   |
|                                  | Yes          | <b>69.7%</b> | 64.9%   | 71.2%   | 68.4%    | 69.9%   |
|                                  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Private wells/septic<br>systems  | No           | <b>61.2%</b> | 68.5%   | 60.9%   | 60.8%    | 54.6%   |
|                                  | Yes          | <b>38.8%</b> | 31.5%   | 39.1%   | 39.2%    | 45.4%   |
|                                  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |

Table 10 Continued>>

Table 10 Continued&gt;&gt;

| 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           | <b>72.1%</b> | 80.4%   | 72.7%   | 68.8%    | 71.9%   |
|  | Yes          | <b>27.9%</b> | 19.6%   | 27.3%   | 31.2%    | 28.1%   |
|  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| There are no local risks from climate change   | No           | <b>88.3%</b> | 85.2%   | 86.9%   | 91.6%    | 88.9%   |
|  | Yes          | <b>11.7%</b> | 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           | <b>31.8%</b> | 34.7%   | 29.1%   | 34.0%    | 41.4%   |
|  | Yes          | <b>68.2%</b> | 65.3%   | 70.9%   | 66.0%    | 58.6%   |
|  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Infectious diseases such as West Nile virus          | No           | <b>59.5%</b> | 66.7%   | 59.2%   | 57.5%    | 61.9%   |
|  | Yes          | <b>40.5%</b> | 33.3%   | 40.8%   | 42.5%    | 38.1%   |
|  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Heat stroke  | No           | <b>48.3%</b> | 60.0%   | 46.9%   | 47.5%    | 48.6%   |
|  | Yes          | <b>51.7%</b> | 40.0%   | 53.1%   | 52.5%    | 51.4%   |
|  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Injuries from storms or other extreme weather events | No           | <b>42.2%</b> | 52.4%   | 41.1%   | 39.7%    | 50.5%   |
|  | Yes          | <b>57.8%</b> | 47.6%   | 58.9%   | 60.3%    | 49.5%   |
|  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Sunburn  | No           | <b>52.5%</b> | 55.3%   | 50.4%   | 55.6%    | 51.6%   |
|  | Yes          | <b>47.5%</b> | 44.7%   | 49.6%   | 44.4%    | 48.4%   |
|  | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Cancer   | No           | <b>52.3%</b> | 55.4%   | 50.1%   | 55.8%    | 50.5%   |
|  | Yes          | <b>47.7%</b> | 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   | <b>15.3%</b> | 14.5%   | 14.1%   | 17.7%    | 15.0%   |
| Only a little vulnerable  | <b>24.9%</b> | 29.0%   | 27.7%   | 18.6%    | 25.5%   |
| Moderately vulnerable   | <b>32.0%</b> | 30.2%   | 34.8%   | 27.8%    | 30.4%   |
| Very vulnerable   | <b>12.6%</b> | 8.2%    | 13.0%   | 12.1%    | 17.4%   |
| Don't believe there are potential climate change health impacts | <b>3.0%</b>  | 5.7%    | 2.5%    | 3.1%     | 3.2%    |
| Don't know  | <b>12.2%</b> | 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           | <b>90.9%</b> | 88.3%   | 90.7%   | 93.4%    | 83.4%   |
|                                       | Yes          | <b>9.1%</b>  | 11.7%   | 9.3%    | 6.6%     | 16.6%   |
|                                       | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Obesity                               | No           | <b>79.7%</b> | 82.4%   | 79.8%   | 78.3%    | 82.3%   |
|                                       | Yes          | <b>20.3%</b> | 17.6%   | 20.2%   | 21.7%    | 17.7%   |
|                                       | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Diabetes                              | No           | <b>76.5%</b> | 77.1%   | 78.1%   | 73.0%    | 78.6%   |
|                                       | Yes          | <b>23.5%</b> | 22.9%   | 21.9%   | 27.0%    | 21.4%   |
|                                       | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| Respiratory illness, including asthma | No           | <b>69.0%</b> | 72.2%   | 71.0%   | 62.8%    | 76.8%   |
|                                       | Yes          | <b>31.0%</b> | 27.8%   | 29.0%   | 37.2%    | 23.2%   |
|                                       | Unweighted n | 2126         | 551     | 671     | 421      | 483     |
| A physical or mental disability       | No           | <b>84.8%</b> | 89.3%   | 85.4%   | 83.1%    | 82.2%   |
|                                       | Yes          | <b>15.2%</b> | 10.7%   | 14.6%   | 16.9%    | 17.8%   |
|                                       | Unweighted n | 2126         | 551     | 671     | 421      | 483     |

## Sample demographics

| Region              |                                |                     |
|---------------------|--------------------------------|---------------------|
|                     | STATE<br>unweighted sample (n) | STATE<br>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<br>unweighted<br>sample (n) | STATE<br>weighted<br>% | WESTERN<br>weighted<br>% | CENTRAL<br>weighted<br>% | SOUTHERN<br>weighted<br>% | EASTERN<br>weighted<br>% |
| 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,<br>unweighted n | 2126                              | 2126                   | 551                      | 671                      | 421                       | 483                      |

| Age                  |                                   |                        |                          |                          |                           |                          |
|----------------------|-----------------------------------|------------------------|--------------------------|--------------------------|---------------------------|--------------------------|
|                      | STATE<br>unweighted<br>sample (n) | STATE<br>weighted<br>% | WESTERN<br>weighted<br>% | CENTRAL<br>weighted<br>% | SOUTHERN<br>weighted<br>% | EASTERN<br>weighted<br>% |
| 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<br>unweighted<br>sample (n) | STATE<br>weighted<br>% | WESTERN<br>weighted<br>% | CENTRAL<br>weighted<br>% | SOUTHERN<br>weighted<br>% | EASTERN<br>weighted<br>% |
| 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<br>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<br>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<br>unweighted<br>sample (n) | STATE<br>weighted<br>% | WESTERN<br>weighted<br>% | CENTRAL<br>weighted<br>% | SOUTHERN<br>weighted<br>% | EASTERN<br>weighted<br>% |
| 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<br>unweighted<br>sample (n) | STATE<br>weighted<br>% | WESTERN<br>weighted<br>% | CENTRAL<br>weighted<br>% | SOUTHERN<br>weighted<br>% | EASTERN<br>weighted<br>% |
| 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<br>unweighted<br>sample (n) | STATE<br>weighted<br>% | WESTERN<br>weighted<br>% | CENTRAL<br>weighted<br>% | SOUTHERN<br>weighted<br>% | EASTERN<br>weighted<br>% |
| Asian  | 77                                | 4.8%                   | 2.7%                     | 6.8%                     | 2.1%                      | 4.1%                     |
| Black or African<br>American                 | 317                               | 19.9%                  | 10.4%                    | 19.4%                    | 24.6%                     | 14.7%                    |
| Native Hawaiian or<br>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<br>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<br>unweighted<br>sample (n) | STATE<br>weighted<br>% | WESTERN<br>weighted<br>% | CENTRAL<br>weighted<br>% | SOUTHERN<br>weighted<br>% | EASTERN<br>weighted<br>% |
| How many people<br>under 18 years of<br>age are currently<br>living in your<br>household? | 0                                 | 1427                   | 62.1%                    | 60.9%                    | 59.2%                     | 66.8%                    |
|   | 1                                 | 280                    | 15.2%                    | 12.3%                    | 15.0%                     | 16.8%                    |
|   | 2                                 | 255                    | 15.3%                    | 15.9%                    | 17.6%                     | 11.2%                    |
|   | 3                                 | 92                     | 5.8%                     | 7.4%                     | 6.7%                      | 4.5%                     |
|   | 4                                 | 16                     | 0.7%                     | 2.6%                     | 0.5%                      | 0.5%                     |
|   | 5                                 | 10                     | 0.6%                     | 0.9%                     | 0.9%                      | 0.0%                     |
|   | 6                                 | 3                      | 0.1%                     | 0.0%                     | 0.1%                      | 0.1%                     |
|   | 7                                 | 2                      | 0.1%                     | 0.0%                     | 0.0%                      | 0.1%                     |
|   | Totals,<br>unweighted n           | 2085                   | 2085                     | 544                      | 656                       | 408                      |

| Political ideology  |                              | STATE      | STATE    | WESTERN  | CENTRAL  | SOUTHERN | EASTERN  |
|---|------------------------------|------------|----------|----------|----------|----------|----------|
|   |                              | unweighted | weighted | weighted | weighted | weighted | weighted |
|   |                              | sample (n) | %        | %        | %        | %        | %        |
| 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      |





