



# 2021 Public Awareness Research

Presented to the Metropolitan Washington Air Quality  
Committee

February 23, 2022

**Steve Raabe**  
President, OpinionWorks LLC



# OpinionWorks Credentials

- Measure perceptions, attitudes
- Seek engagement, behavior change
- Surveys, focus groups, in-depth interviews

## ***The Baltimore Sun***

- Elections and issues polling since 2007

## **Chesapeake Bay Program**

- Development of a Baywide indicator of stewardship behavior

## **The Recycling Partnership**

- National consumer research on response to recycling prompts and tools

## **211 Maryland**

- Branding and outreach related to behavioral health helpline

## **Virginia Coastal Zone Management Program**

- Behavior change related to marine debris

## **William Penn Foundation**

- Assessing equitable access to the trails and parks in Greater Philadelphia

## **Waterfront Partnership of Baltimore**

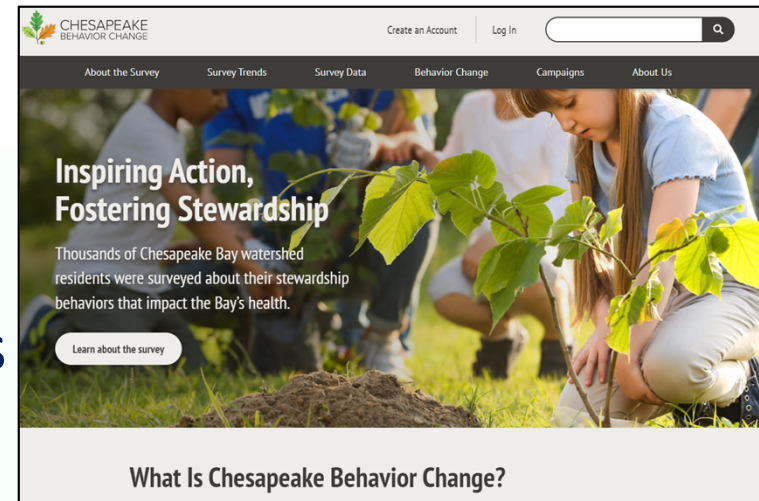
- Perceptions and visitation of Baltimore's Inner Harbor

## **Los Angeles County, California**

- Evaluation of media campaign encouraging proper disposal of batteries

## **City of Dayton, Ohio**

- Annual public survey assessing satisfaction with municipal services




2021 Dayton Survey

Final Report



# Survey Method

- Expanded regional sample size in 2021:
  - 2,261 interviews regionwide
  - Very good ability to segment the data, understand audience segments
  - Representative of region's population
  - ± 2.1% sampling error, 95% confidence
- Mixed-mode sampling
  - Online using consumer panels
  - Traditional USPS mail
  - Wireless and landline phone
- Fielded Oct 1 – Nov 20, 2021
- Can track results from Clean Air Partners' 2015, 2018 surveys



## Air Survey

Please respond by November 7, 2021

Please take the survey online today at [www.CleanAirSurvey.org](http://www.CleanAirSurvey.org). Or you can return this survey in the enclosed envelope, postage-paid. Your responses are confidential and will not be tied back to you personally.

In what county or independent city do you live? \_\_\_\_\_

1. When you hear the phrase "Code Orange" or "Code Red," what is the first thing you think of? \_\_\_\_\_

Air pollution occurs when the air contains gases, dust, fumes or odor in harmful amounts. That is, amounts which could be harmful to the health or comfort of humans and animals or which could cause damage to plants and materials.

2. On a scale of 1 to 5, where 1 is *not at all a problem* and 5 is *a very big problem*, how much of a problem do you believe air pollution is in the metropolitan area where you live?  
 1—not at all a problem     2     3     4     5—a very big problem     Not sure

3. How would you say that air pollution in the metropolitan area where you live has changed over the last five years?  
 Gotten a lot worse     Gotten somewhat worse     Stayed the same     Improved somewhat     Improved a lot     Not sure


4. How strongly do you agree or disagree with this statement? Air pollution affects the quality of life of my family.  
 Strongly disagree     Somewhat disagree     Neither agree nor disagree     Somewhat agree     Strongly agree     Not sure

5. How strongly do you agree or disagree with this statement?  
 I can make a difference in improving air quality.  
 Strongly disagree     Somewhat disagree     Somewhat agree     Strongly agree     Neither agree nor disagree     Not sure

	Part 1— please circle which you are willing to do:	Part 2— please circle which you have done:
Q6 has two parts:	Willing to Do	Have Done

6. Which of the following behaviors are you *willing to do* to reduce air pollution? Please also indicate if you *have done it* to reduce air pollution.

A. Use electric lawn mowers/equipment instead of gas-powered equipment	1	2
B. Replace incandescent light bulbs with compact fluorescent light bulbs		
C. Adjust your thermostat to save energy		
D. Ensure regular maintenance of your car		
E. Carpool, vanpool, take public transit		
F. Use a gas or electric grill instead of charcoal		
G. Purchase household products such as cleaning products that are safe for the environment		
H. Limit pesticide use		



Dear Resident:

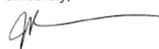
The Metropolitan Washington Council of Governments and Baltimore Metropolitan Council need your input to improve the air quality in the Eastern Shore and Washington, DC metropolitan region. The survey results will be used to improve air quality in the region.

Please help us by completing the survey. You are asked to represent your neighbors. Your response is very important. Please complete and return the survey as soon as possible. You may return the survey in the enclosed postage-paid envelope, or complete the survey online at [www.CleanAirSurvey.org](http://www.CleanAirSurvey.org).

If you have any questions about the survey, please contact our survey administrator, Jennifer Desimone, at [jdesimone@cleanairpartners.org](mailto:jdesimone@cleanairpartners.org) or 410-326-1234.

Thank you for your help in improving our region's air!

Sincerely,



Jennifer Desimone  
 Managing Director, Clean Air Partners  
 Air Program Chief, Metropolitan Washington Council of Governments

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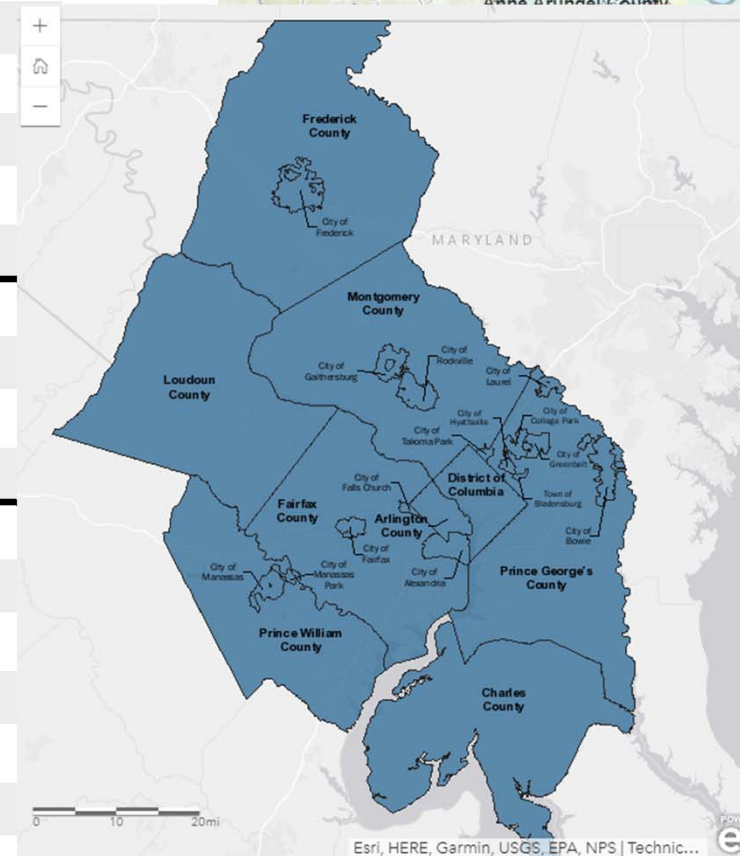
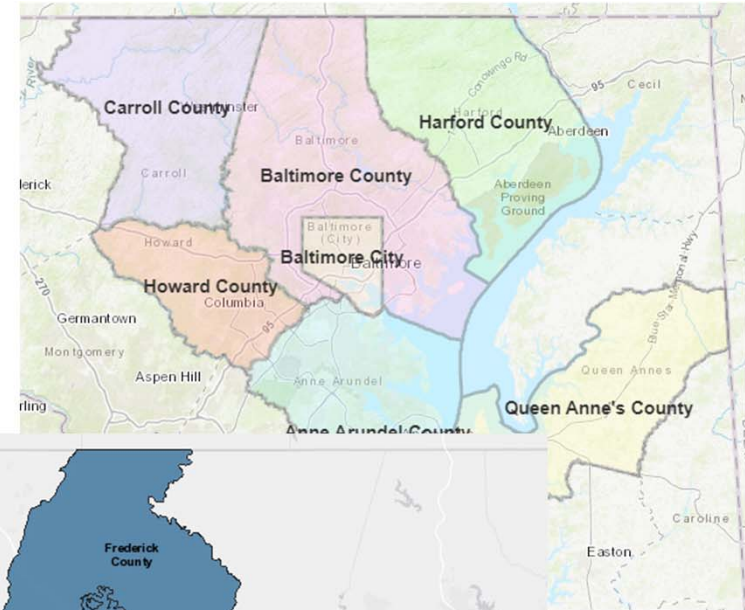
OPINIONWORKS LLC  
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# Survey Sample Composition

Under age 25	11%
20 to 34	19%
35 to 44	18%
45 to 54	19%
55 to 64	16%
65 or more	16%
Prefer not to say	1%
Caucasian or White	55%
African-American or Black	24%
Hispanic or Latino	10%
Asian	9%
All other ethnicities or races	5%
Prefer not to say or not sure	4%
Male	48%
Female	48%
Another gender category	1%
Prefer not to say	3%
Less than \$25,000	11%
\$25,000 to \$49,999	14%
\$50,000 to \$74,999	17%
\$75,000 to \$99,999	14%
\$100,000 to \$149,999	17%
\$150,000 and over	16%
Prefer not to say or not sure	10%



# In-Depth Interviews

- 40-minute virtual interviews
  - Perceptions of air quality
  - Awareness of inequities
  - Climate change
  - Behaviors: Barriers & Motivators
- 15 selected participants
  - Recruited from the survey
  - Perceptions we wanted to understand
  - High opportunity to adopt behaviors
  - Broad cross-section
- Professional interviewer
- Conducted Jan. 9-12, 2022



Plant a tree to help improve the air

Use electric lawn mowers/equipment instead of gas-powered equipment

Telework (work at home)

Refuel your motor vehicles after dusk

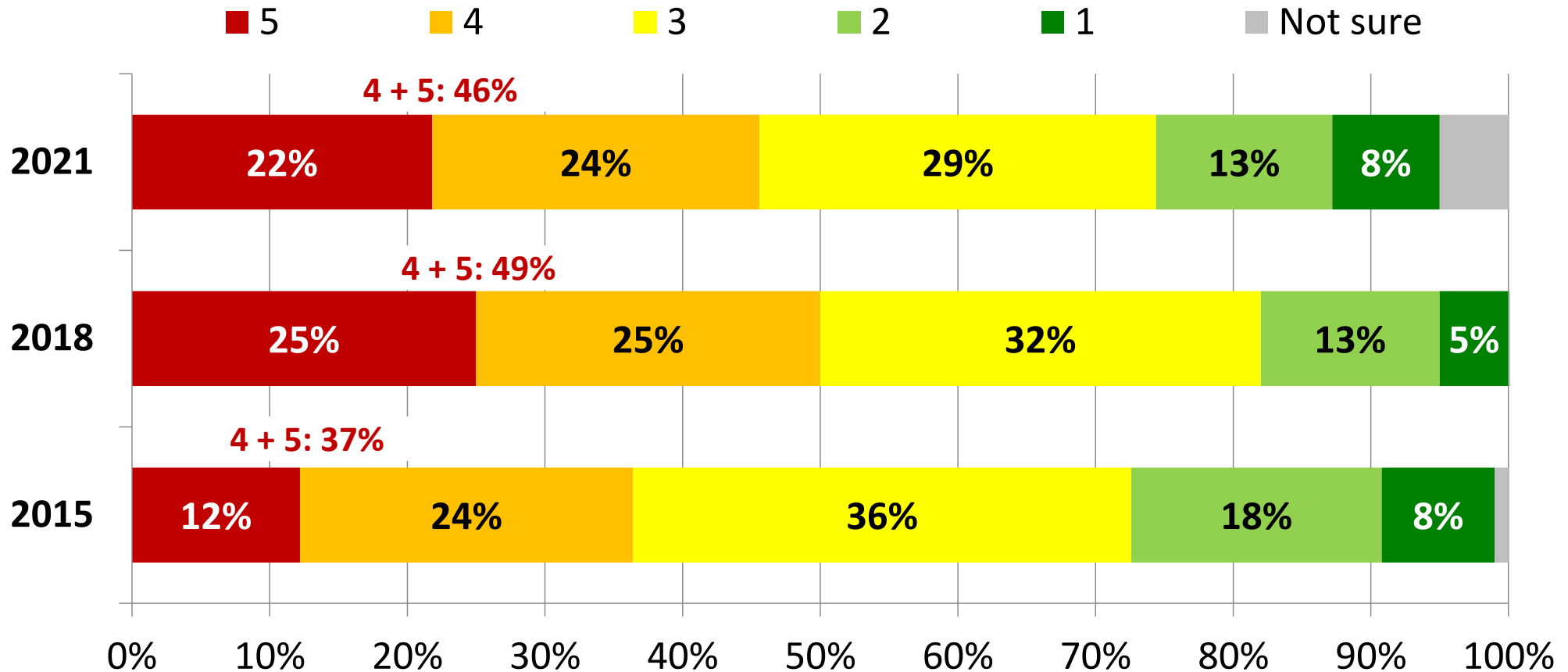
Switch to a higher-mileage vehicle or a hybrid or electric vehicle

Add solar panels to your home

Dawn Mangan Video 011222

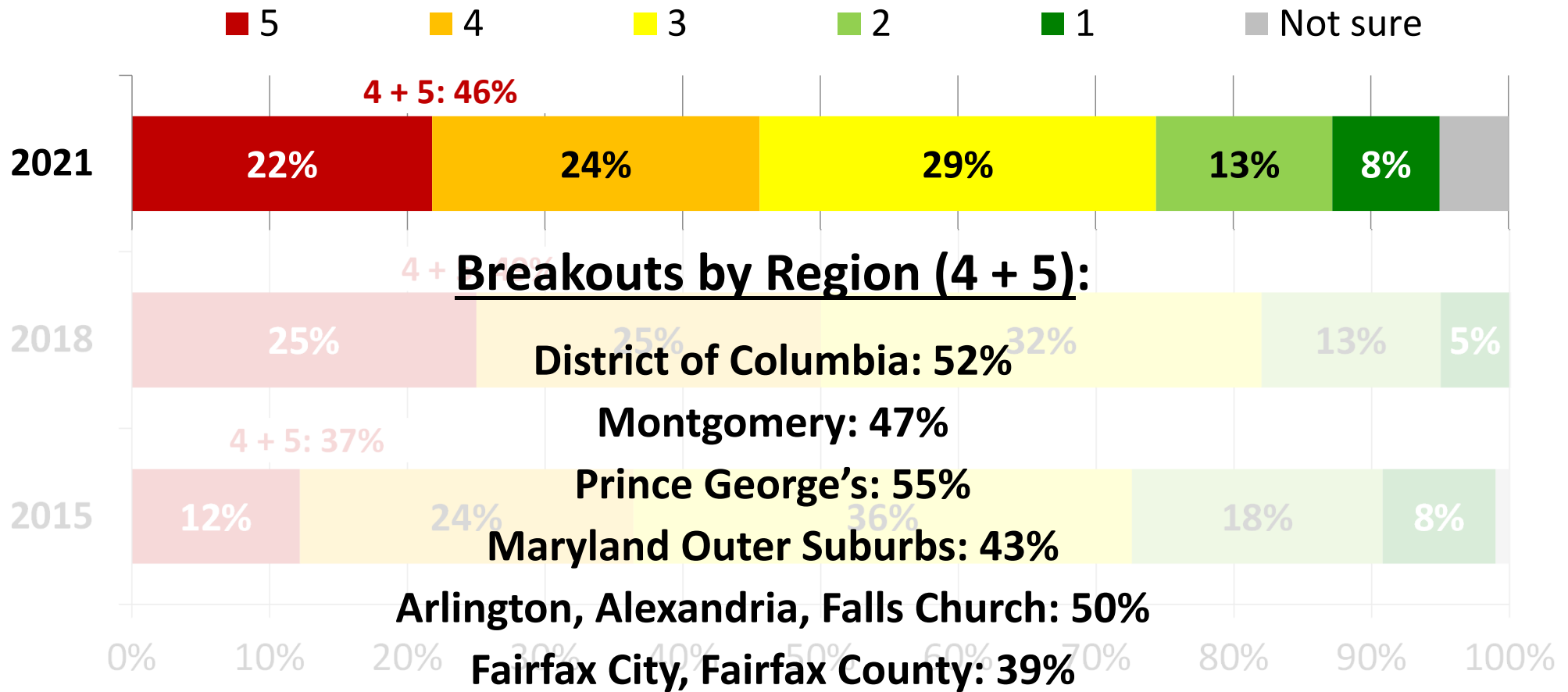
# Impressions of Air Quality

# Problem of Air Pollution



On a scale of 1 to 5, where 1 is not at all a problem and 5 is a very big problem, how much of a problem do you believe air pollution is in the metropolitan area where you live?

# Problem of Air Pollution

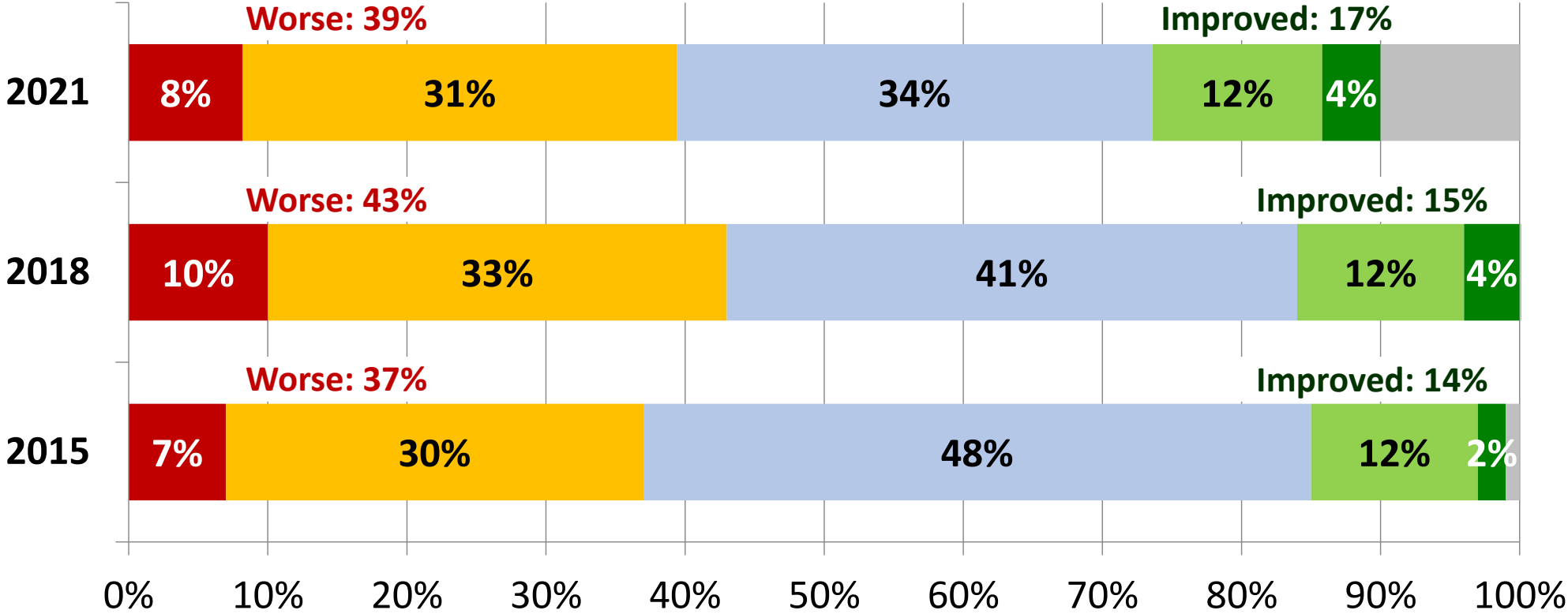


On a scale of 1 to 5, where 1 is not a problem at all and 5 is a very big problem, how much of a problem do you believe air pollution is in the metropolitan area where you live?



# Perception of Trend in Air Pollution

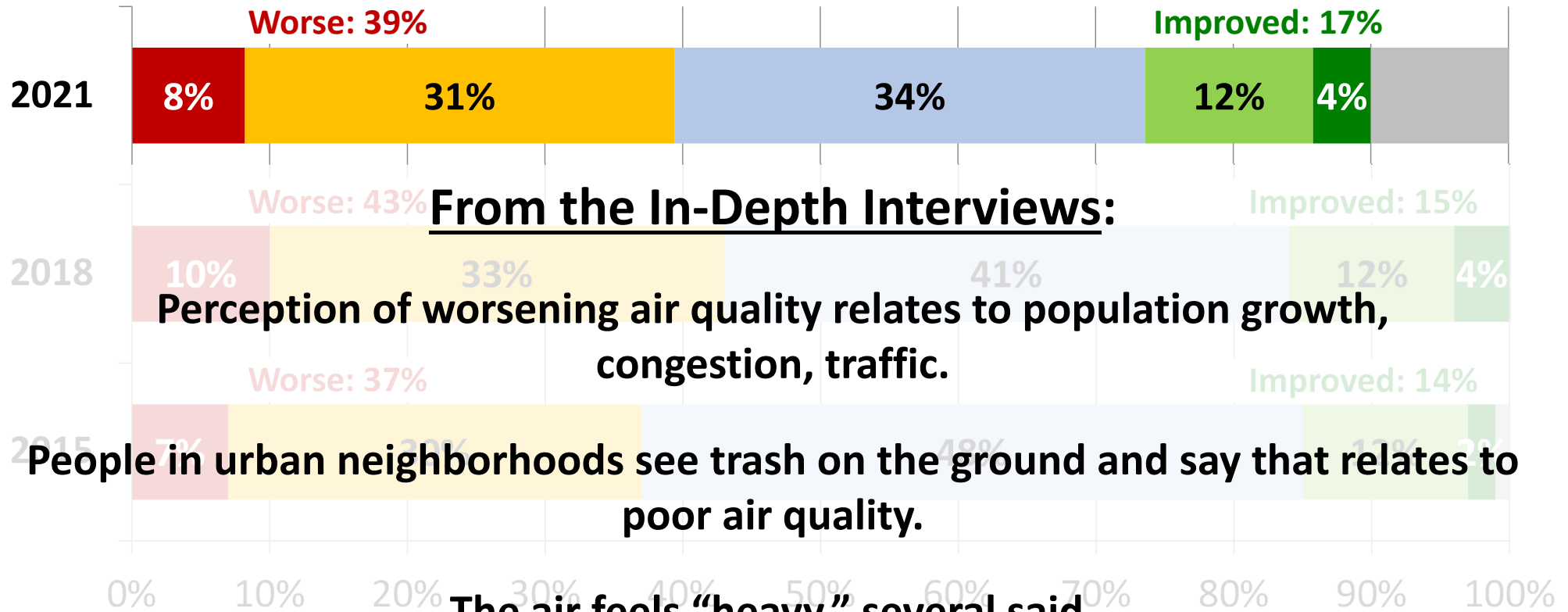
■ Gotten a lot worse ■ Gotten somewhat worse ■ Stayed the same ■ Improved somewhat ■ Improved a lot ■ Not sure



**How would you say that air pollution in the metropolitan area where you live has changed over the last five years?**

# Perception of Trend in Air Pollution

■ Gotten a lot worse ■ Gotten somewhat worse ■ Stayed the same ■ Improved somewhat ■ Improved a lot ■ Not sure



## From the In-Depth Interviews:

Perception of worsening air quality relates to population growth, congestion, traffic.

People in urban neighborhoods see trash on the ground and say that relates to poor air quality.

The air feels "heavy," several said.

How would you say that air pollution in the metropolitan area where you live has changed over the last five years?  
 People relate poor air quality and high temperatures.

Urban residents are focused on the air, while suburban and more affluent residents often don't think about it.

# Finding Out the Air Quality Trend is Positive

## From the In-Depth Interviews:

**“I think that's amazing news, but I think that definitely more needs to be done given our growing population, (and) that if we don't continue...we're going to go backward.”**

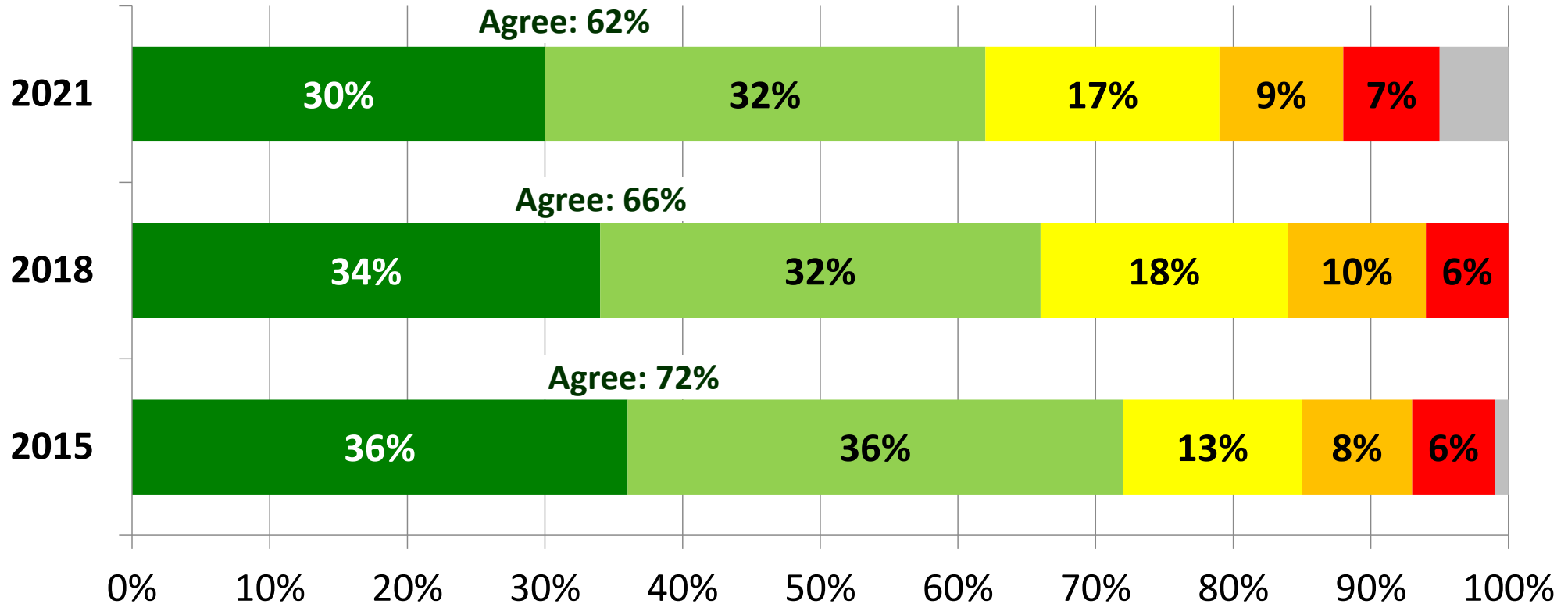
**For most, the realization that the air is improving is eye-opening and motivating.**

**Some don't believe it.**

**Some don't think about air quality: mostly outer suburban areas**

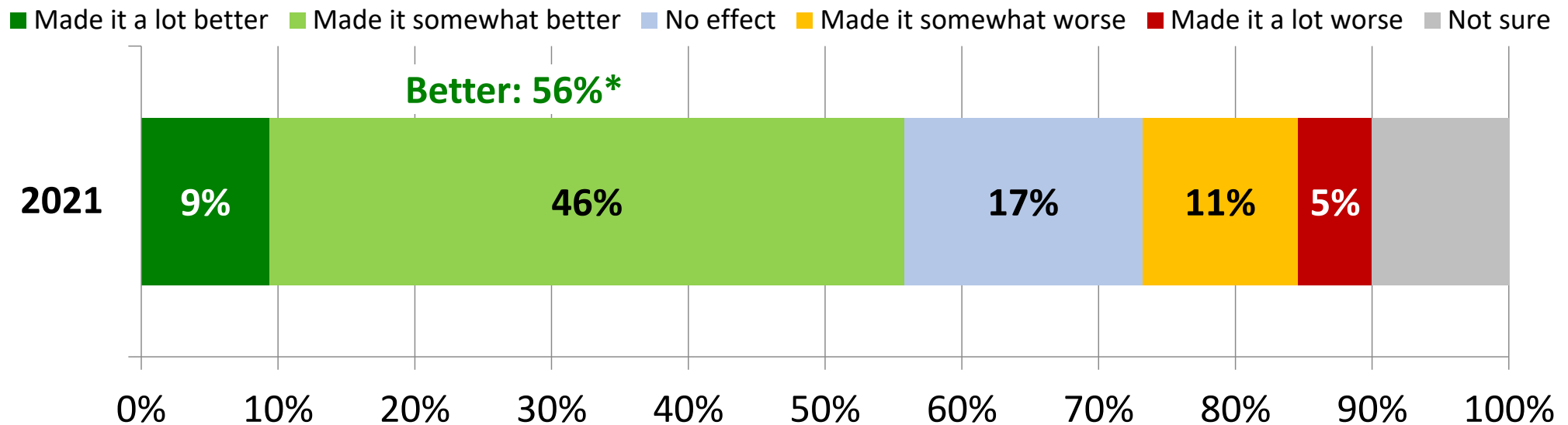
# Air pollution affects the quality of life of my family.

Strongly agree Somewhat agree Neither agree or disagree Somewhat disagree Strongly disagree Not sure



How strongly do you agree or disagree with this statement?  
**Air pollution affects the quality of life of my family.**

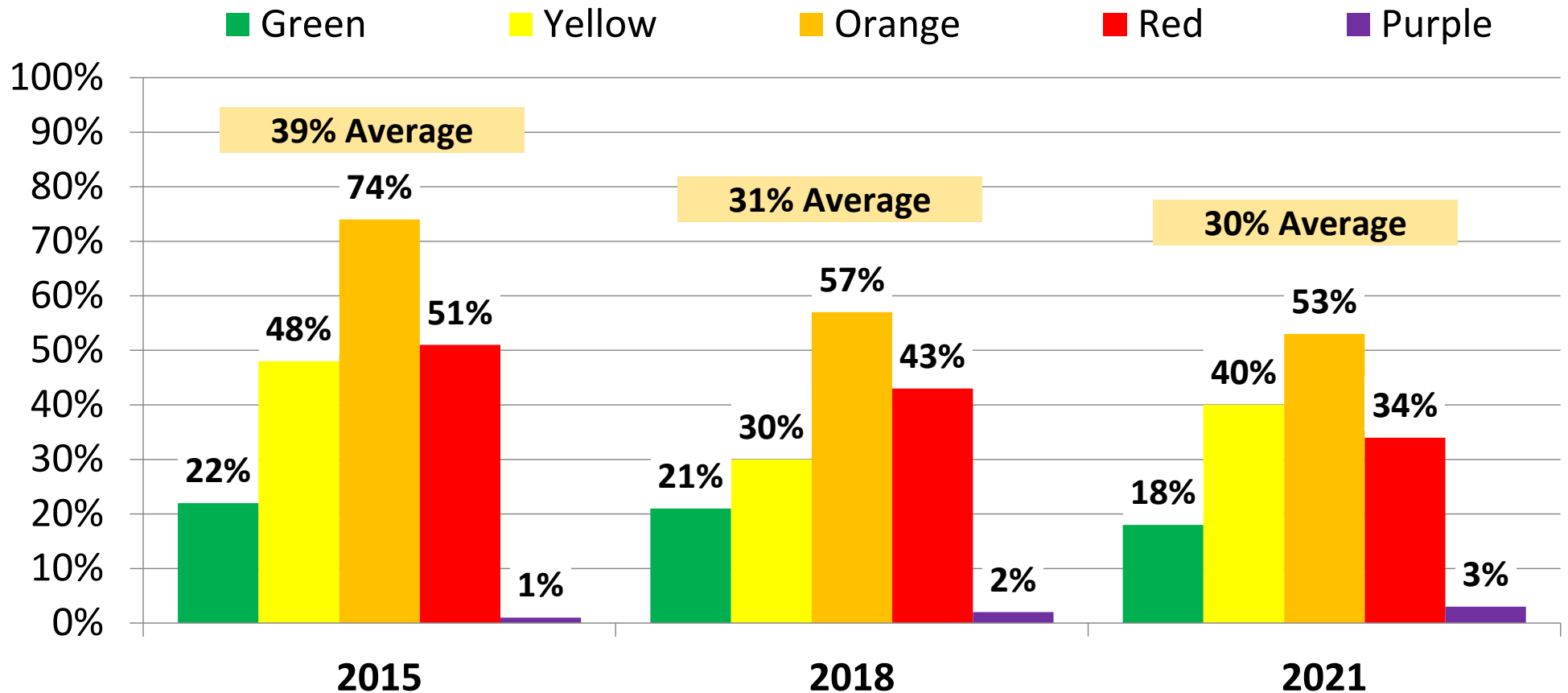
# How the Pandemic Has Affected Air Quality



**How do you think the pandemic affected air quality, if at all?**

*\*Numbers may not appear to add correctly due to rounding.*

# Recall of Color Codes



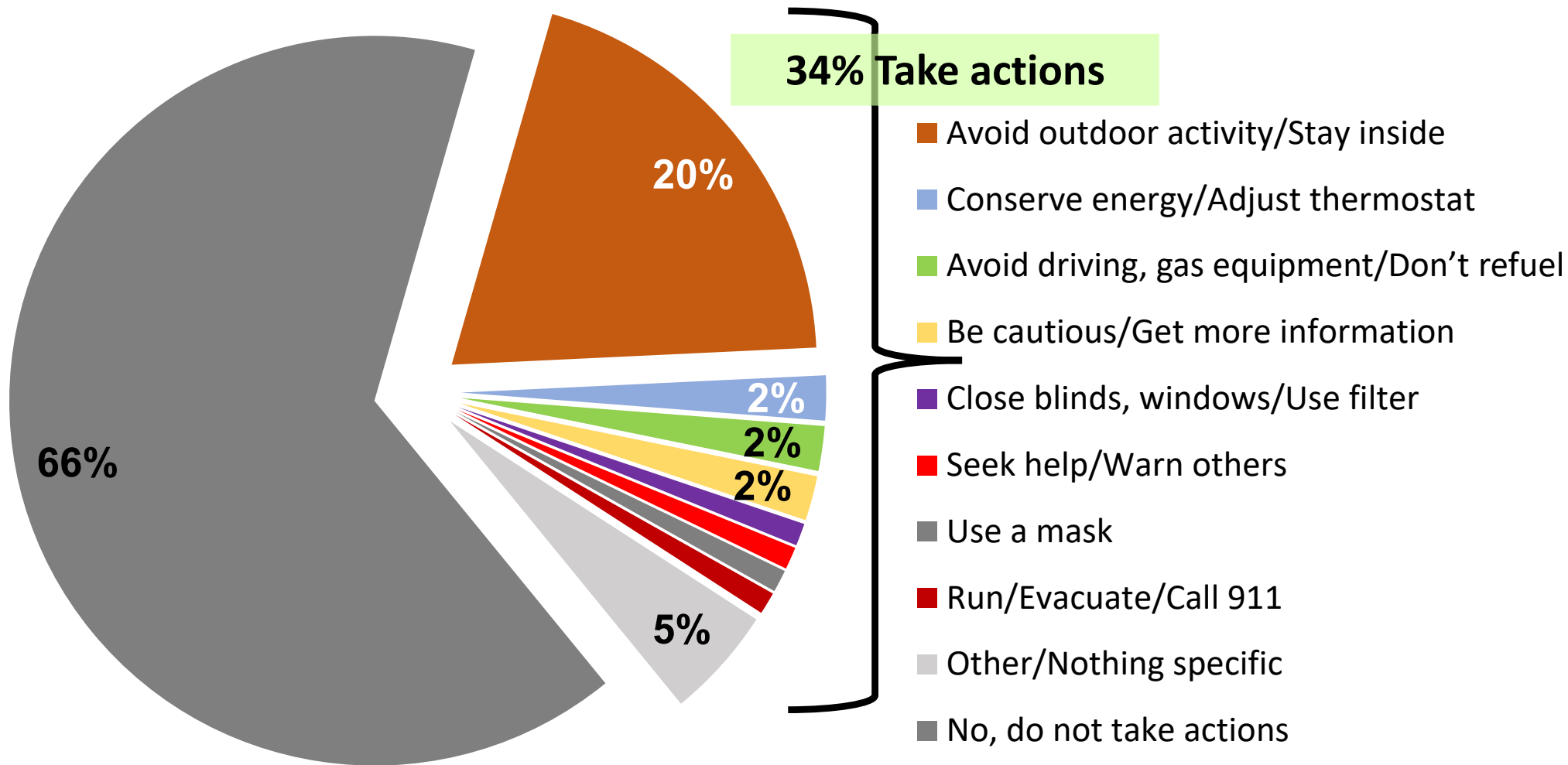
The Air Quality Index, also known as the AQI, uses a color code system.

(If remember seeing or hearing color codes):

**What air quality color codes did you hear or see in the last few months?**



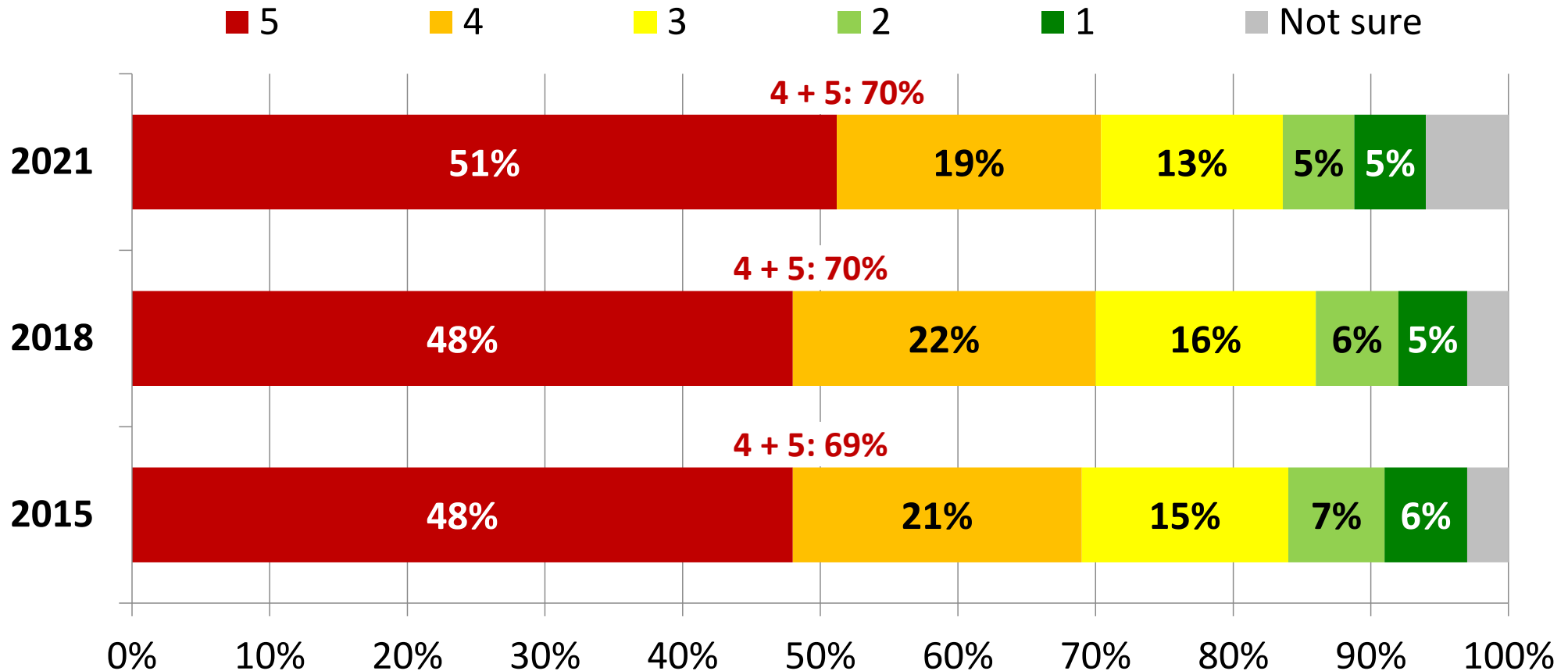
# Actions After Hearing "Code Orange" or "Code Red"



**If you hear "Code Orange" or "Code Red" do you take any actions?  
If so, what do you do differently?**

# Climate Change

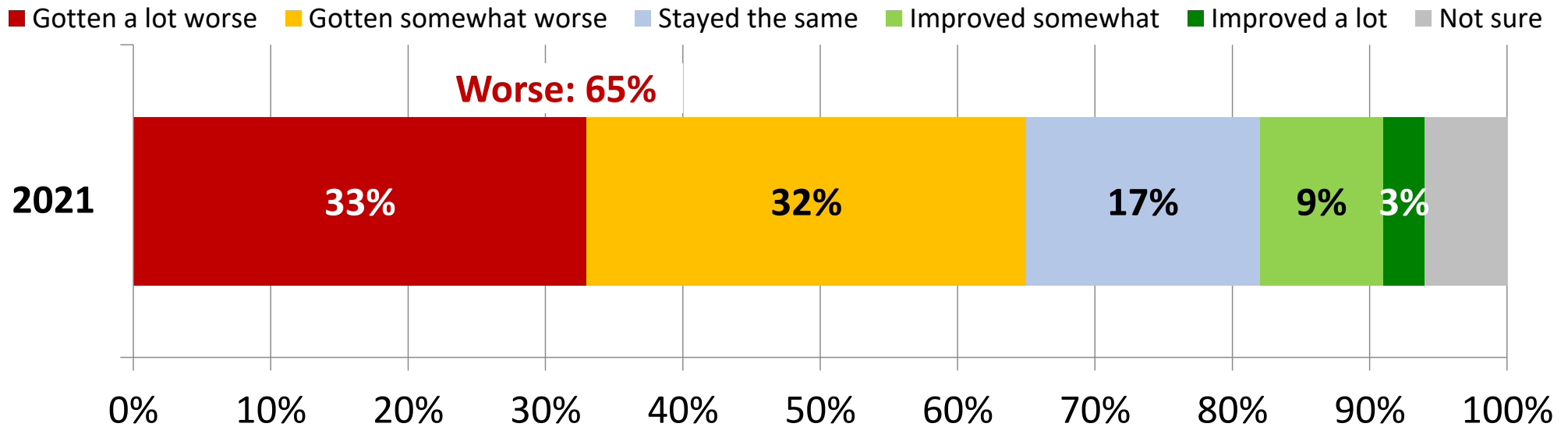
# Problem of Climate Change



Climate Change refers to any significant change in the measures of climate lasting for an extended period of time. Climate change includes major changes in temperature, wind patterns, and frequency and severity of storms.

**On a scale of 1 to 5, where 1 is not at all a problem and 5 is a very big problem, how much of a problem do you believe climate change is?**

# Perception of Trend in Climate Change

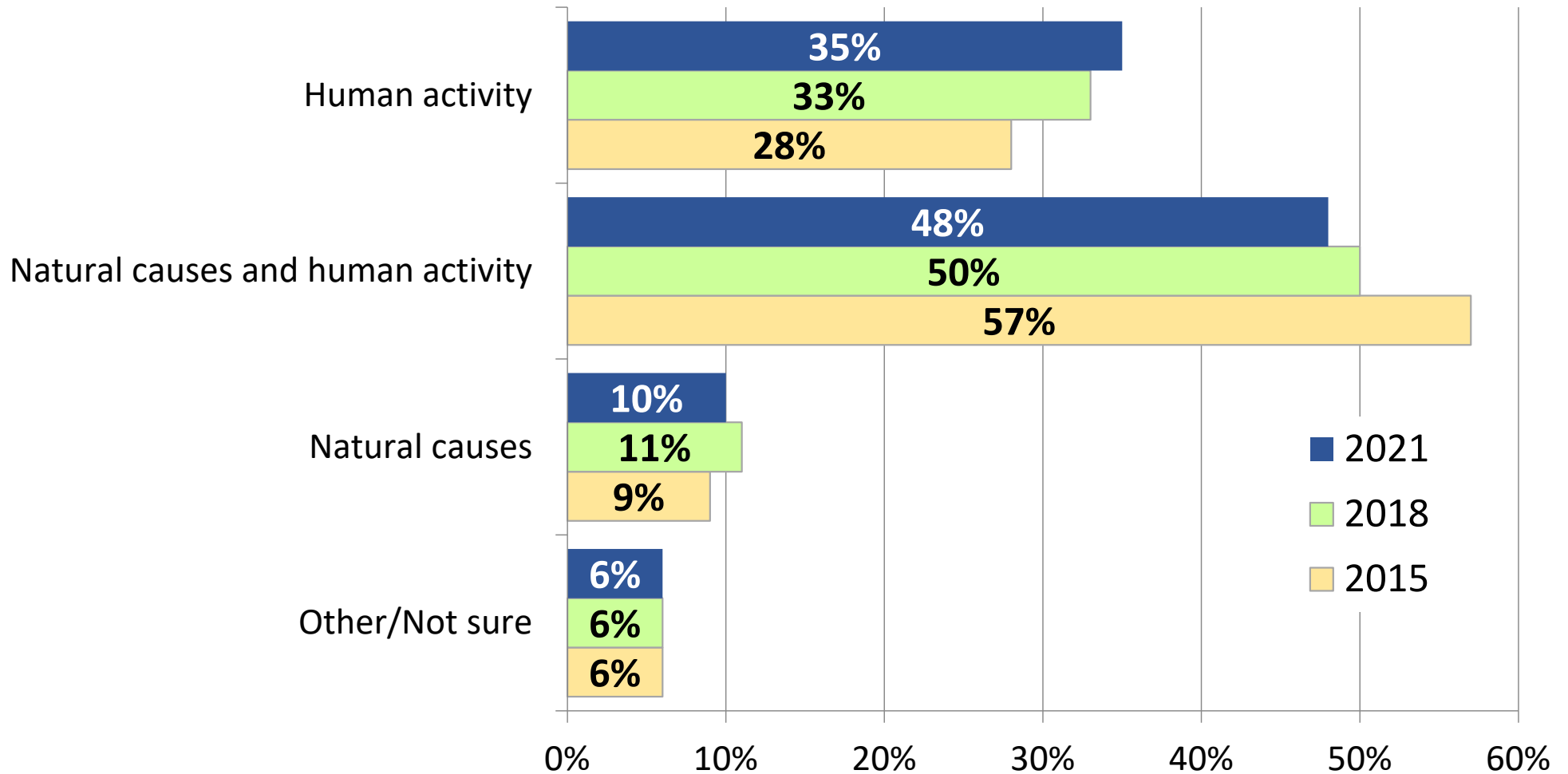


**What has happened with the climate change problem over the last five years?**

**From the In-Depth Interviews:**

“It was just interesting because you would think they might be hand in hand, but how can climate change be getting worse and air quality is getting better?”

# What Causes Climate Change



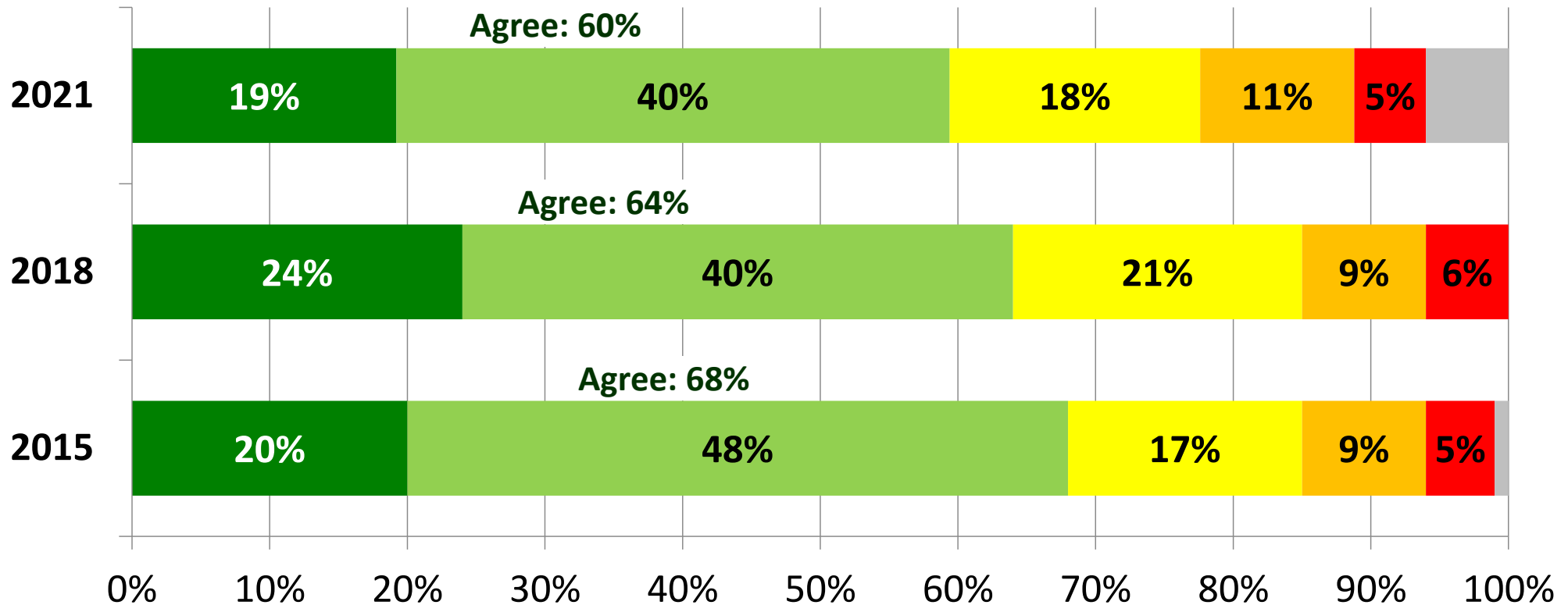
**What do you think causes climate change? Please select just one.**

# Motivating Attitudes and Willingness to Take Action



# I can make a difference in improving air quality.

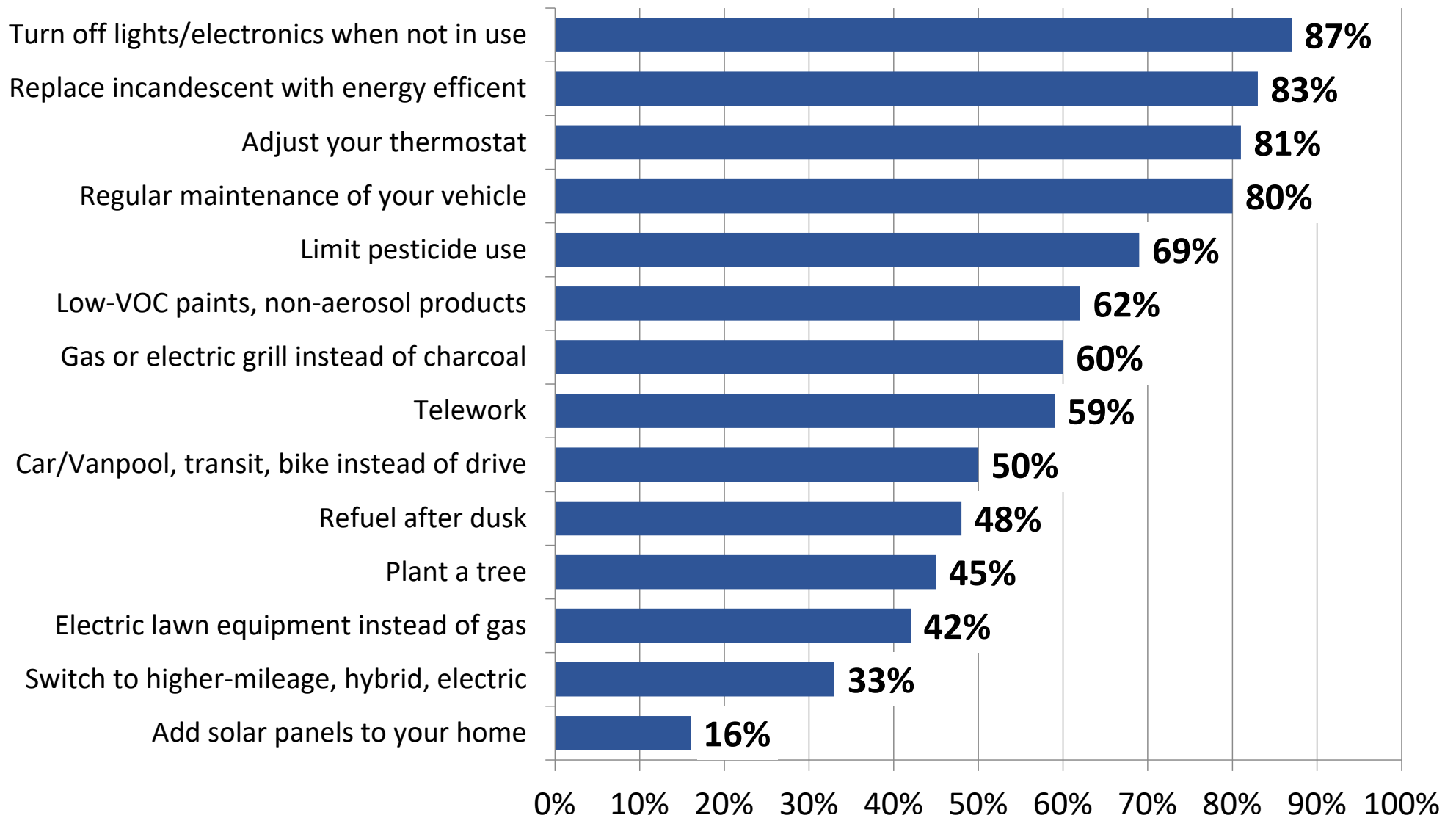
■ Strongly agree ■ Somewhat agree ■ Neither agree or disagree ■ Somewhat disagree ■ Strongly disagree ■ Not sure



How strongly do you agree or disagree with this statement?

**I can make a difference in improving air quality.**

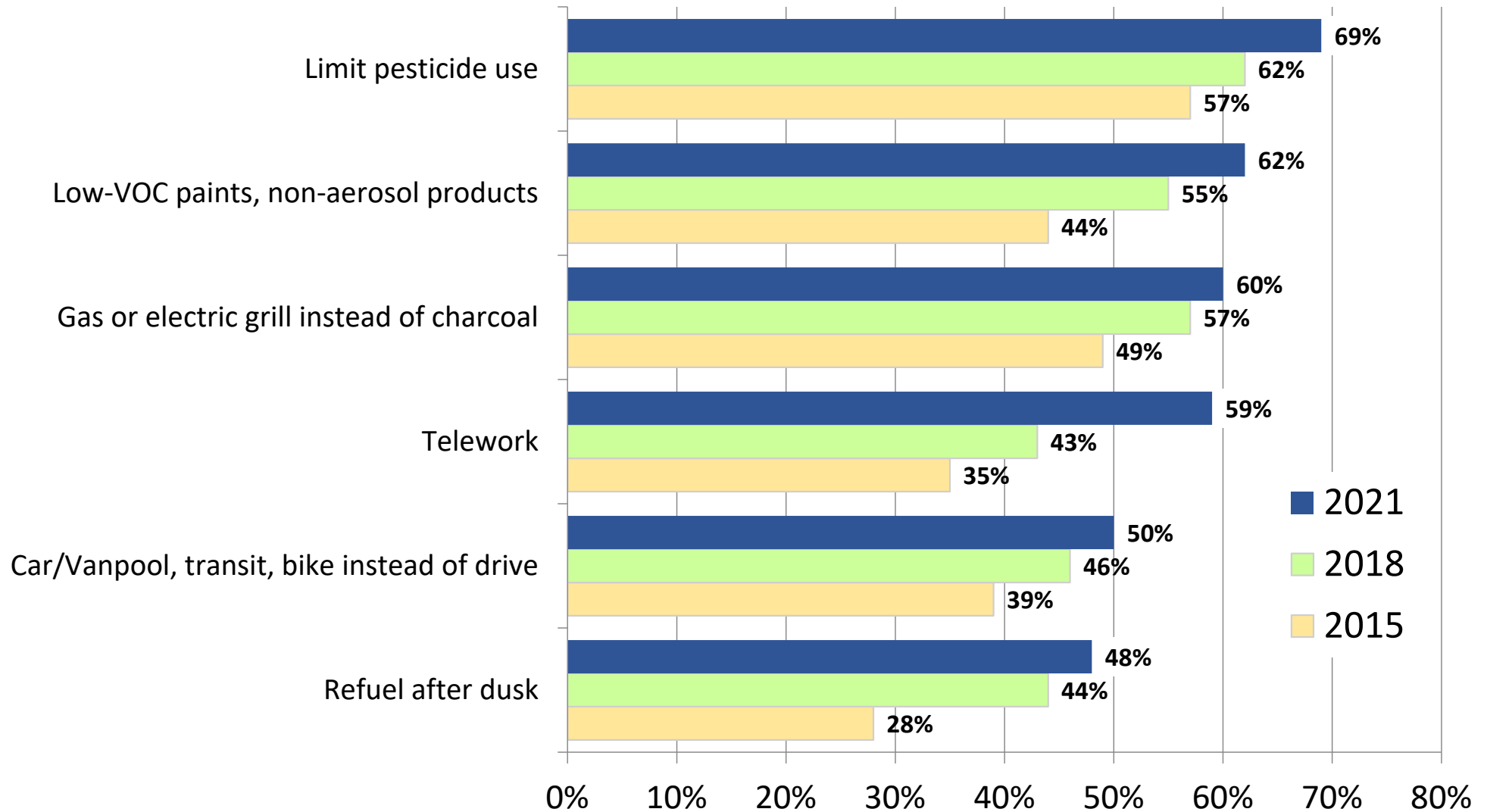
# What People Have Done to Reduce Air Pollution



**Which of the following behaviors are you willing to do to reduce air pollution?  
Please also indicate if you have done it to reduce air pollution.  
(Responses to the second question shows above.)**

# What People Have Done to Reduce Air Pollution

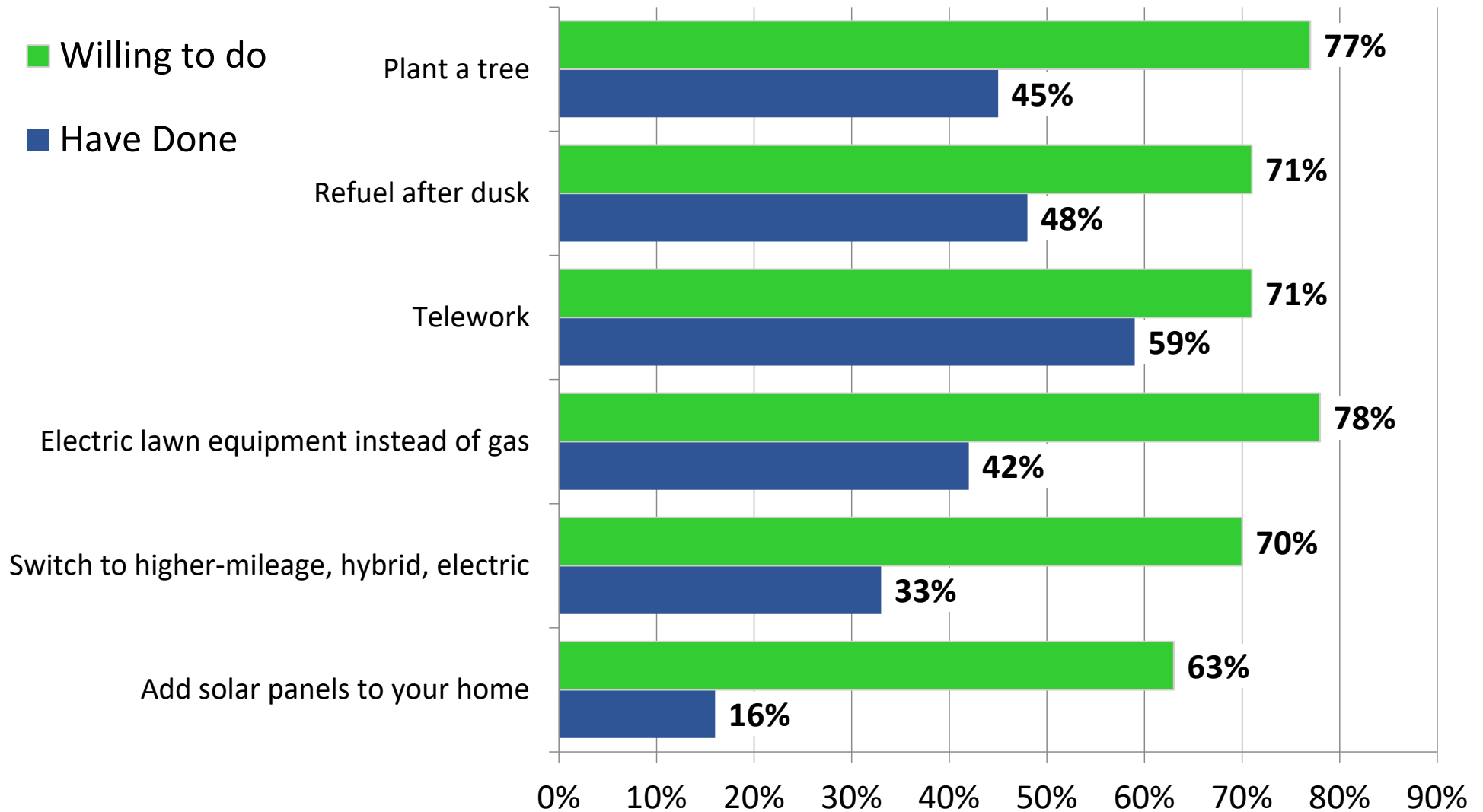
## *Biggest Changes Since 2015*



**Which of the following behaviors are you willing to do to reduce air pollution?  
Please also indicate if you have done it to reduce air pollution.  
(Responses to the second question shows above.)**

# What People are Willing to Do to Reduce Air Pollution

## *Biggest Opportunities for Adoption*



**Which of the following behaviors are you willing to do to reduce air pollution?  
Please also indicate if you have done it to reduce air pollution.**

# What People are Willing to Do to Reduce Air Pollution

## *Biggest Opportunities for Adoption*

### **From the In-Depth Interviews:**

**People are looking for a reason why. Take refueling after dusk, for example:**

“To be honest with you, I have to research it a little bit more because I don't know all the details about it. I have heard it, but I don't feel educated enough to tell people why. I know it's better for the air quality, but I couldn't really explain it in terms of why.”

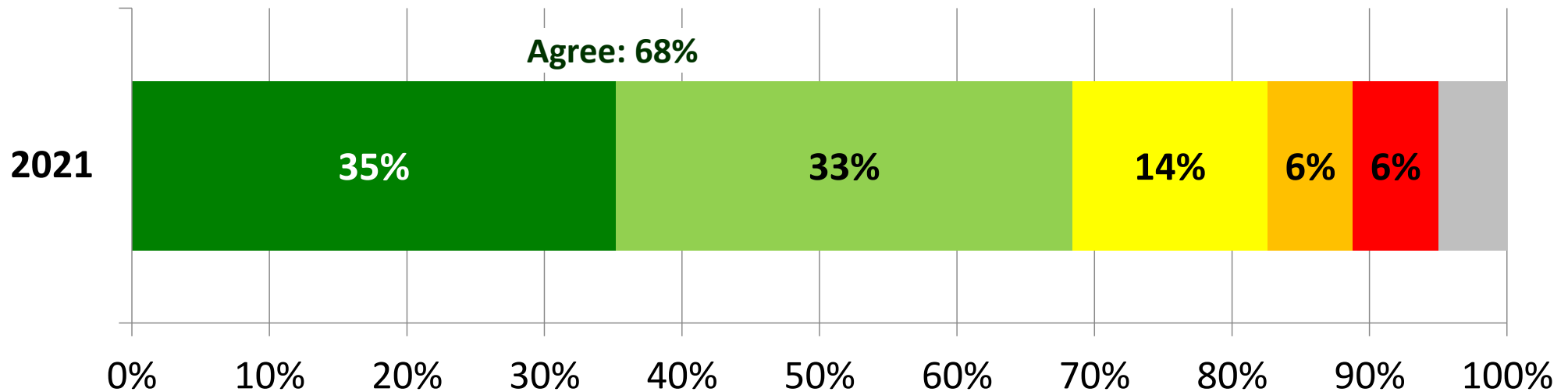
“And maybe you can explain this to me, but I've heard of refueling your motor vehicles after dusk. Excuse my French, but what the hell does that do?”

Equity



# Air pollution impacts some groups of people more than others.

■ Strongly agree ■ Somewhat agree ■ Neither agree or disagree ■ Somewhat disagree ■ Strongly disagree ■ Not sure

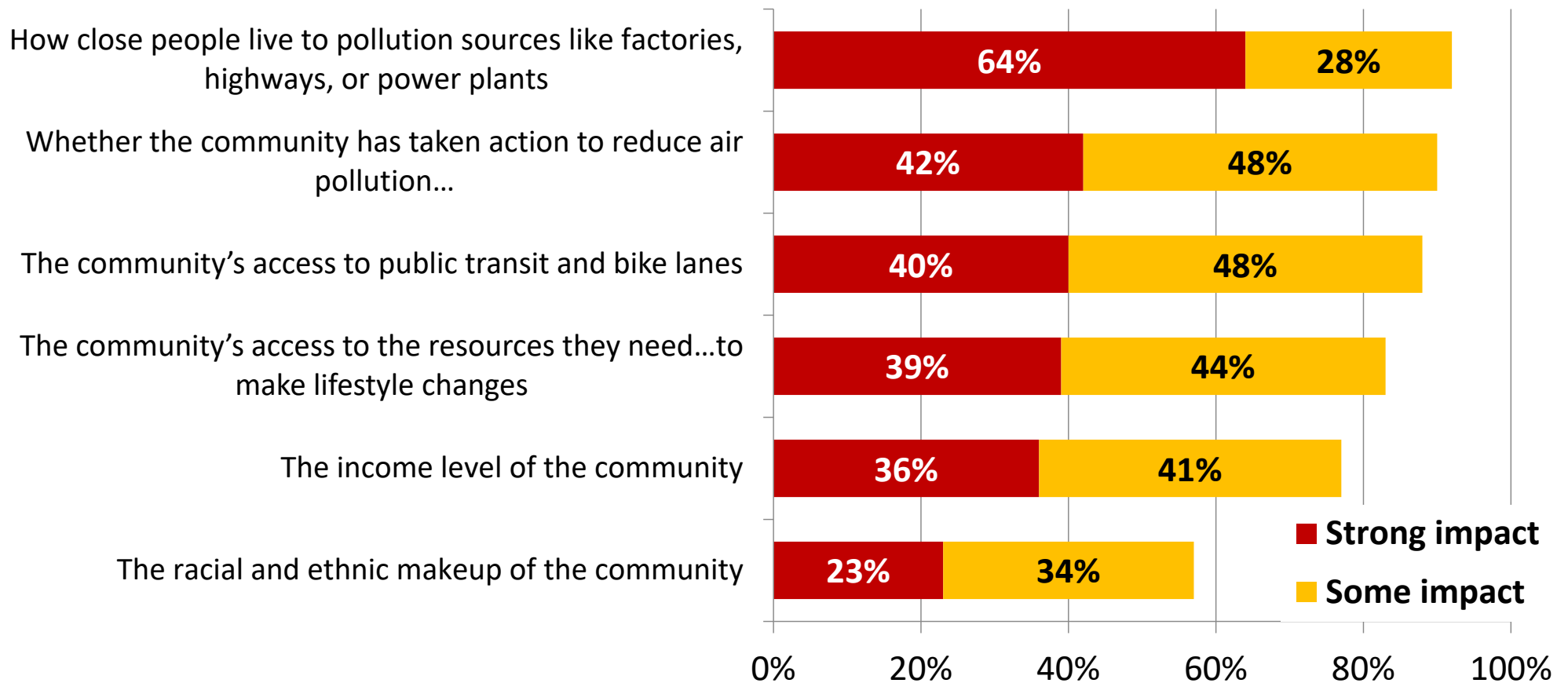


How strongly do you agree or disagree with this statement?

**Air pollution impacts some groups of people more than others.**

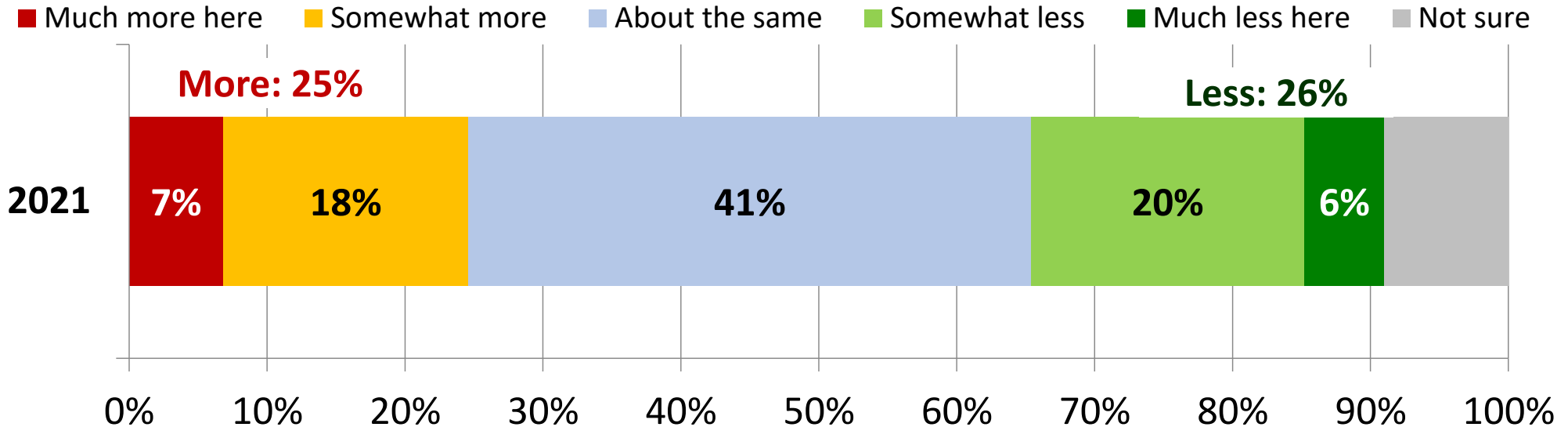
“The people who have lesser incomes have less power to influence where a factory is built, where a garbage dump is built or whatever, and the poorer the segment of the population is the more they're going to have that kind of (stuff) happen to them because they don't have the money, the legislative power and things are just going to get built there that are hazardous to their health.”

# Factors That Might Influence Differences in Air Pollution



**Following are some factors that might influence differences in air pollution across communities. For each one, please say if you think it has a strong impact, some impact, or no impact on differences in air quality.**

# How Much Air Pollution Impacts Your Community Compared to Others

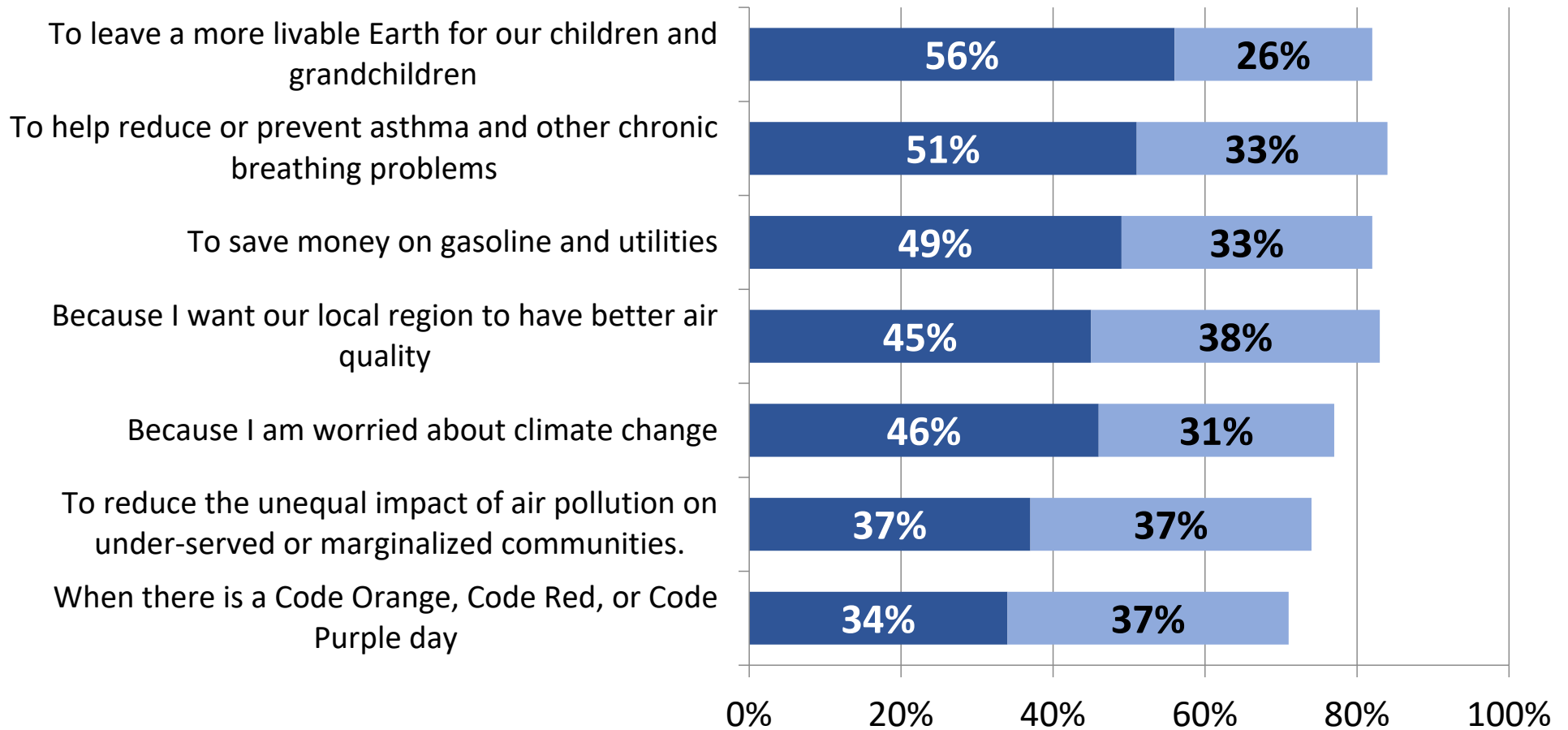


**How much do you think air pollution impacts your community compared to other communities in our region?**

## From the In-Depth Interviews:

“...if you're out in the suburbs or you're out in the outlying areas around DC, well, one, it's usually more trees and it's noticeably cooler. Even different from Uptown, from Northwest to Southeast DC, you'll notice in traveling once you get down here, it's just physically hotter, it is just more uncomfortable, and it is harder to breathe.”

# Motivations to Improve Air Quality



**Please rate how much the following statements would motivate you to do more in your daily life to help reduce air pollution and improve air quality. For each one, please say if it motivates you a lot, some, not much, or not at all.**

A. Because I want our local region to have better air quality.

B. Because I am worried about climate change.

C. When there is a Code Orange (or) Code Red day.

D. To help reduce or prevent asthma and other chronic breathing problems.

E. To leave a more livable Earth for our **children and grandchildren.**

F. To save money on gasoline and utilities.

G. To reduce the unequal impact of air pollution on under-served or marginalized communities.

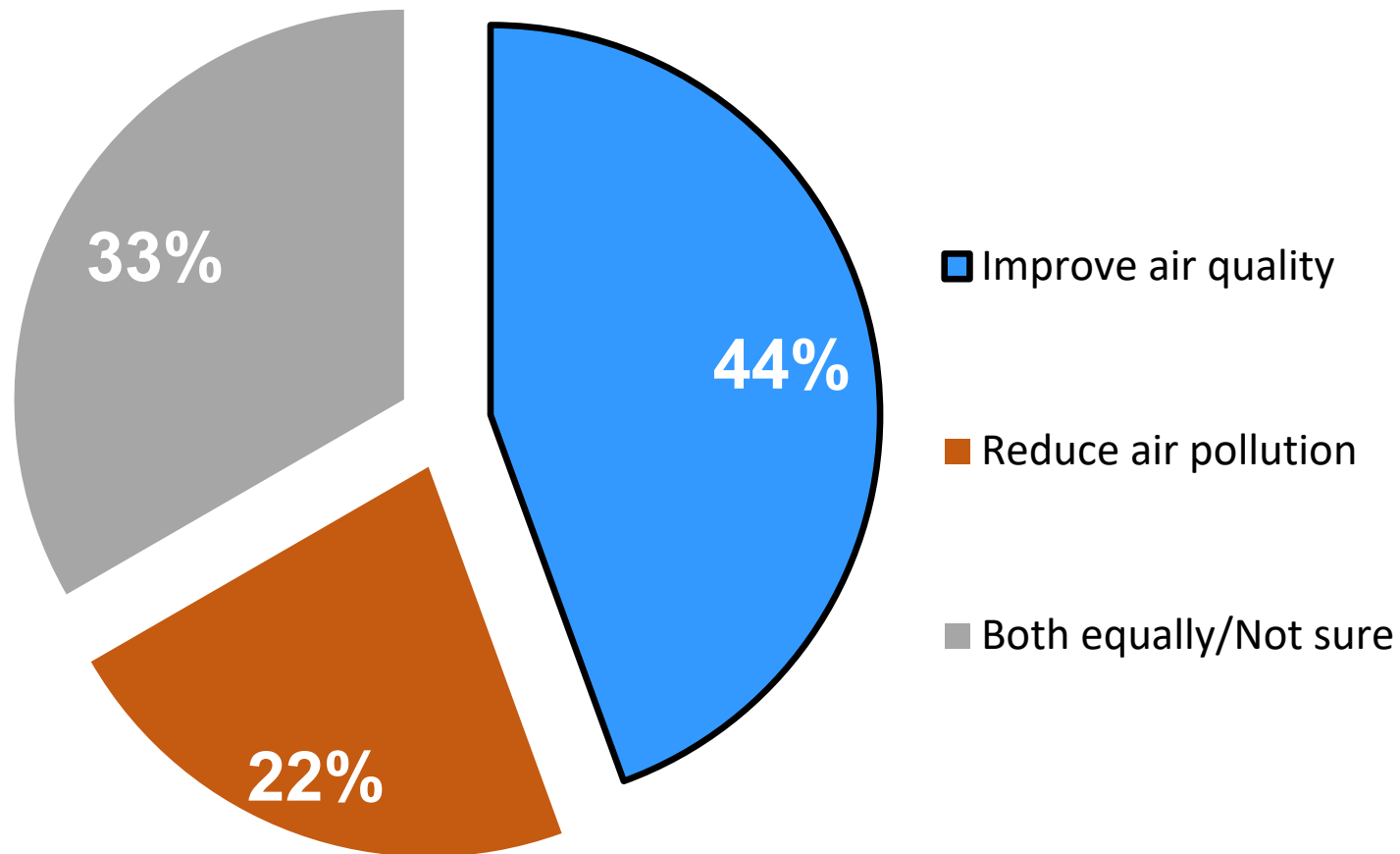
H. According to the American Lung Association, over 700,000 adults and 200,000 kids in our area have asthma.

*“scary”*

*“nervous”*

*“Wow. That’s awful”*

## Most Motivated to...



**Which phrase motivates you more, “reduce air pollution” or “improve air quality?”**

Closing Thought

# Advice From a Participant

**“...make the message about ‘We.’** Not you should, or this is important, but this is a ‘We’ issue. We as residents of the DMV, *we deserve* better air. *We deserve* cleaner water. *We deserve* not to have asthma. I mean, that statement in and of itself, if you put that somewhere, ‘Do you know that there are 200,000 children in our area that have asthma?’ Doesn't have to be that way.

**We can do something about it.”**





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President, OpinionWorks LLC

