



FEMA

RELEVANT TARGETED FLOOD PROTECTIVE ACTIONS FOR THE PUBLIC

Association of State Flood Plain Managers June 2018

FEMA Individual and Community Preparedness

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FLOOD



Key Protective Actions

- Mitigate and buy flood insurance
- Evacuate if advised
- Seek high ground for flash flooding
- Turn Around, Don't Drown®
- Avoid post-event injury

National Household Survey

The National Household Survey (NHS) tracks progress in personal disaster preparedness.

The Survey:

- Measures the public's preparedness actions for hazards they are likely to face
- Looks at the attitudes and experiences that can motivate actions to prepare
- Suggests how and who to reach to support those who are planning to prepare and are preparing



5,019 respondents—including 4,016 from hazard-specific oversamples answered questions about:

- General preparedness
- Hazard-specific questions based on county hazard history



Key Findings

Actions.

The percentage of people taking at least one step to prepare is increasing with considerable variation across the actions.

Motivating Factors include:

- Exposure to information about hazards and how to prepare;
- Belief that preparedness helps, and self-confidence in preparing; and
- Past experiences with disasters

Hazard Factors.

- County-level impacts vary by hazard and may account for differences in motivation and preparedness actions when assessed at the county level.

Socio-demographic Factors.

- There were significant, measureable differences in preparedness actions reported by respondents based on age, education, homeownership, income, and race and ethnicity.



Factors Influencing Hazard-Specific Findings

Extent of hazard impact within a county

- Some hazards are not uniform across a county. Respondents for floods, tornadoes, and wildfires reported lower experience with the hazard and lower hazard risk perception than reported for earthquakes, hurricanes, and winter storms.

Frequency of the hazard and most recent event

- Recency can impact perceptions and other factors such as awareness of hazard events.

Perceptions of experience and relevant risk

- Multiple factors can affect perceptions of experience and risk, including disaster severity, types of personal impact, and individual social context and networks.

Demographics

- Sampling for demographics subgroups was not sufficient at a county level to analyze the differential impacts on some socioeconomic and demographic groups.



TAKING ACTION

A high percentage of people are taking at least one action to prepare.

Over 90% of respondents reported taking at least one of these preparedness actions — 46% took three actions.



Seeking Information



Talking with others about preparation



Attending a meeting or training



Developing a household plan



Stocking Supplies



Taking part in a drill



Measuring Actions: Plans and Supplies

More than 75% of people report that they have supplies; but less than 50% report that they have emergency plans.



Assessing Household Emergency Plans

People's household emergency plans are likely to include communication but less likely to include evacuation plans.

When people have a household plan...

Almost 9 in 10
include plans
for getting in touch



Approximately 6 in 10
include plans to check
on neighbors



In areas with a history of hazards
that require rapid evacuation:



Flood

20% of people have plans that
include evacuation details



Hurricane

43% of people have plans that
include evacuation details



Wildfire

24% of people have plans that
include evacuation details

Household Plan Components

The Hurricane sample area is the only sample where a majority (54%) of respondents reported that they have a household plan.

Hazard	Percent with a Household Plan	Percentage of households with a plan that includes . . .					
		Evacuation details	Percent of Population	Process for getting in touch	Percent of Population	Checking on neighbors	Percent of Population
National Population	45%	48%	24%	87%	39%	65%	31%
Earthquake	44%	44%	22%	87%	40%	62%	30%
Flood	43%	41%	20%	83%	37%	66%	31%
Hurricane	54%	74%	43%	86%	48%	65%	37%
Tornado	45%	53%	23%	86%	41%	71%	33%
Wildfire	43%	53%	24%	80%	40%	63%	28%
Winter Storm	41%	43%	17%	86%	35%	72%	29%

MOTIVATORS

Awareness of Preparedness Information

- The percentage of respondents who reported taking a preparedness action was higher for respondents who reported they had *read, seen, or heard preparedness information* than for those who had not.

Efficacy

- The percentage of respondents who reported taking *some* preparedness actions was higher for those who *believed preparedness helps* and *had confidence in their ability* to prepare than those who did not. Additionally, they were also more likely to have taken four or more preparedness actions.

Experience with a Hazard

- The percentage of respondents who reported taking *some* preparedness actions was higher for respondents who *had experienced a hazard* than those who had not. For the hazard-specific oversamples, there were few relationships between hazard experience and preparedness actions.

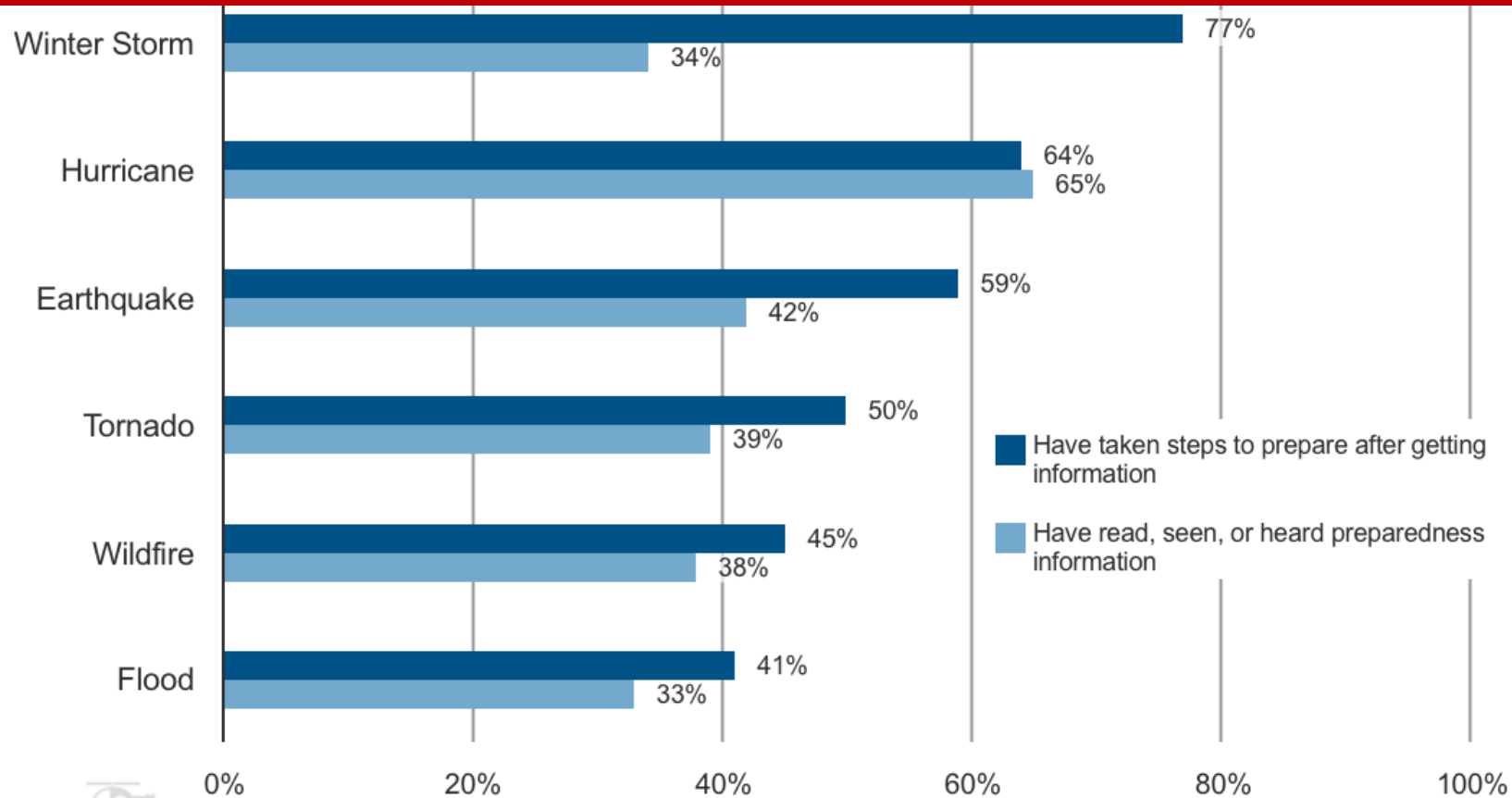
Risk Perception ?

- Respondents' identification of a hazard as relevant did not show a statistically significant relationship to actions.



MOTIVATOR: AWARENESS

Respondents who reported they had read, seen, or heard information about how to prepare were more likely to report taking preparedness action than those who had not.

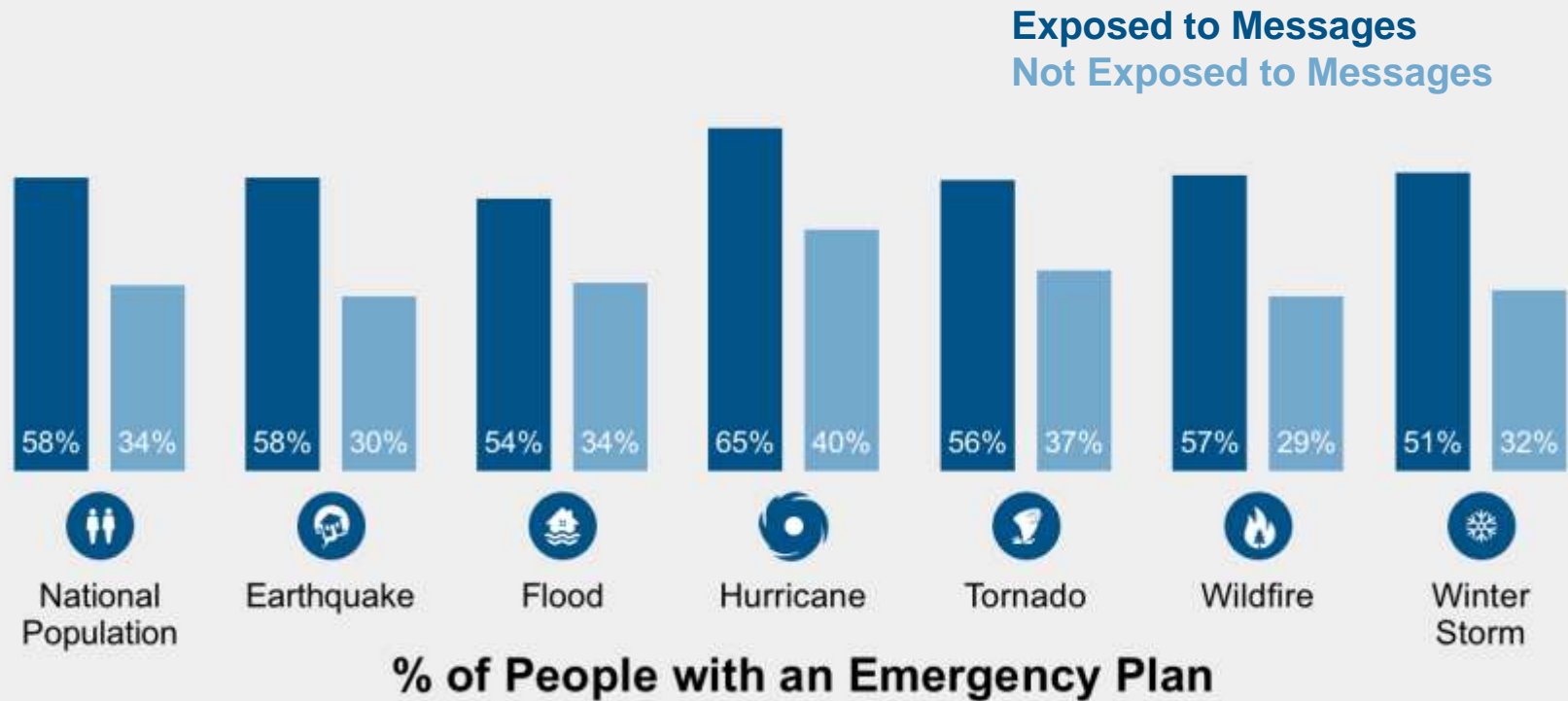


Questions: In the past six months, have you read, seen, or heard any information about how to get better prepared for [hazard]? After receiving the information about how to get better prepared, did you take any steps to prepare for [hazard]?

Awareness and Action Plans

Preparedness messaging influences the development of household plans.

Across all hazards, exposure to preparedness messaging showed a significant relationship to taking preparedness actions



Response Efficacy and Self Efficacy

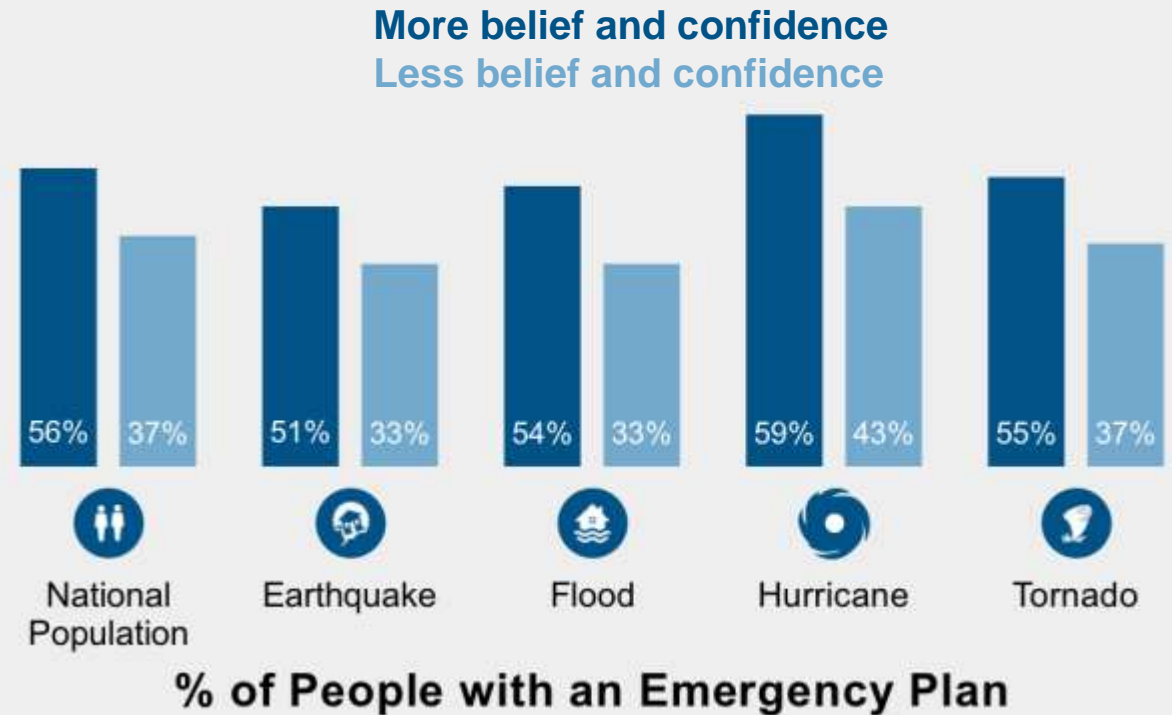
Increasing the population who believe preparedness can help, and are confident in their abilities to prepare can increase motivation for actions.

Hazard	Preparing can help quite a bit or a great deal	<i>Moderately or extremely confident in ability to take steps to prepare</i>	High Response and Self-efficacy
National Population	60%	68%	43%
Earthquake	73%	72%	59%
Flood	57%	71%	46%
Hurricane	78%	88%	71%
Tornado	61%	73%	47%
Wildfire	56%	61%	40%
Winter Storm	67%	86%	60%

MOTIVATOR: EFFICACY

People who develop household emergency plans are more likely to believe that preparedness will help and are confident in their ability to prepare.

People who believed in preparedness and had confidence in their abilities were more likely to plan for emergencies than those who did not.

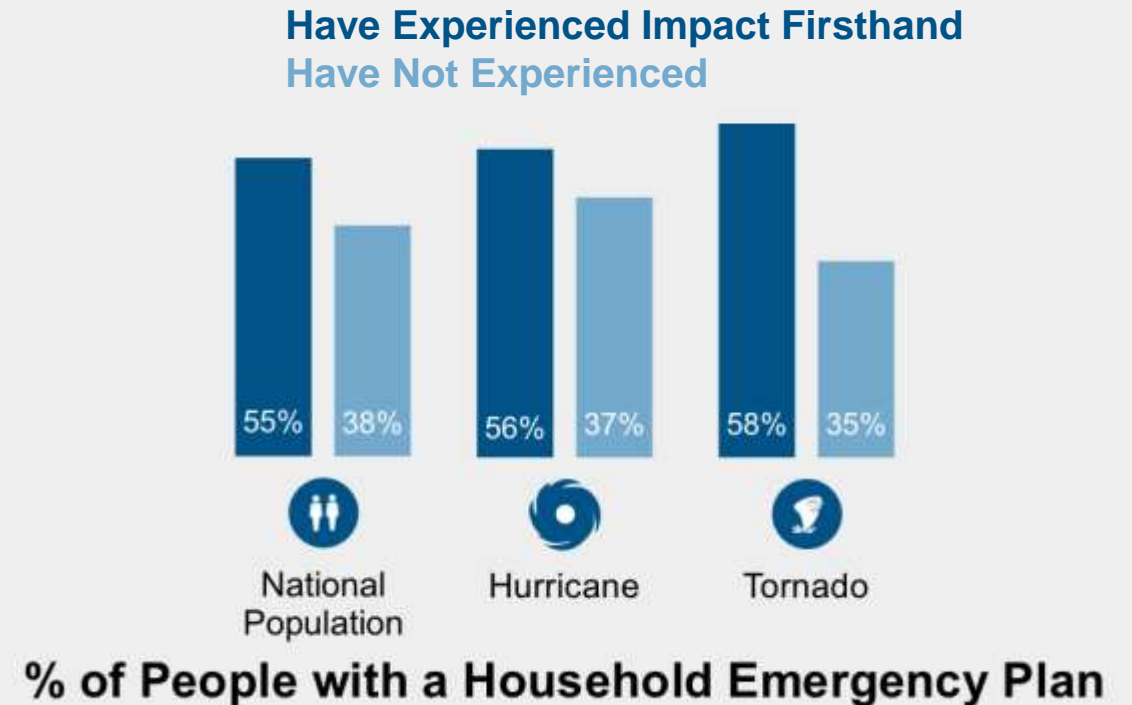


MOTIVATOR: EXPERIENCE

People who have household emergency plans are more likely to have experienced a disaster.

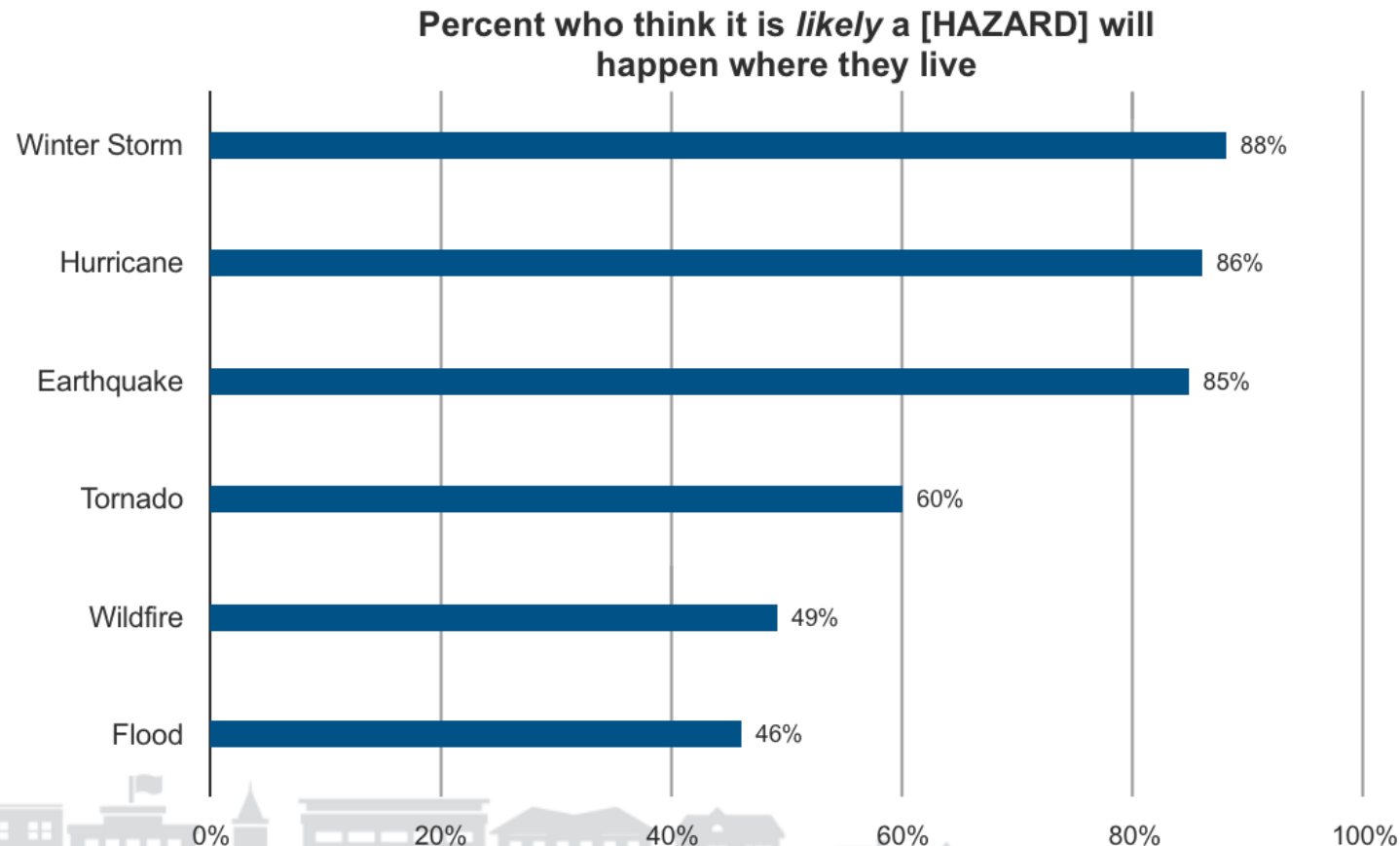
To further improve preparedness:

- Continue with messaging and outreach that is focused on taking action
- Emphasize that taking action *before* a hazard will make a real difference for communities at risk
- Remind people about the real, severe risks these hazards pose



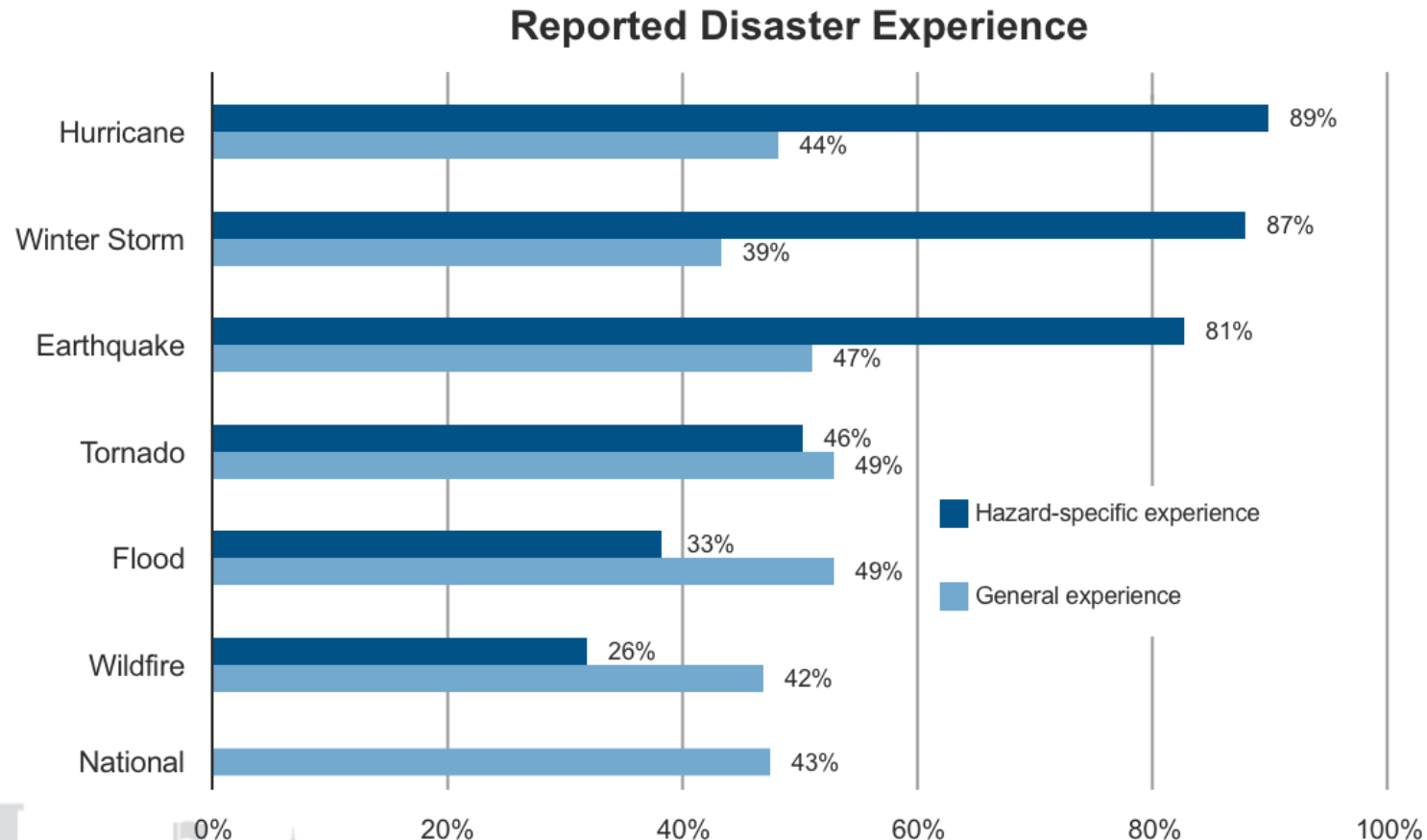
HAZARD RISK PERCEPTION

- Respondents in flood, tornado, or wildfire were less likely to report the hazard was relevant for their area (from 46-60%)
- Respondents in hurricane, earthquake, and winter storm samples were more likely to report the hazard was relevant for their areas (over 85%)



Disaster Experience: All Hazards and by Hazard

- All hazard disaster experience report nationally and by hazard sample ranged from 39% to 49%.
- Experience reported with flood, tornado, wildfire samples was considerably less (26% to 46%) than for hurricane, winter storm, and earthquake samples (81% to 89%).



CHANGING OUTCOMES

Provide messaging and support for:

Hazard Awareness – How to prepare for local hazards and neighborhood level impacts

Household Plans – How to make a household plan for shelter and evacuation

Effective Actions – Survivor stories of how preparedness actions worked to improve safe response and better recovery

Practice – Drills and exercises to practice plans and actions for confident, effective response

Whole Community – Messaging and networks to reach and engage diverse populations and preparedness needs





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