Using Values to Build Public Understanding and Support for Environmental Health Work

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INTRODUCTION

This research was conducted by the FrameWorks Institute and sponsored by the American Public Health Association (APHA) with funding from the Centers for Disease Control's (CDC) National Center for Environmental Health (NCEH). The study described here is part of a larger project that seeks to provide those working in the field of environmental health with communications strategies to help build public understanding of environmental health work and to create new public perspectives on how to improve environmental health outcomes.[1]

In this report, we present the results of an experimental survey of 2,600 respondents. This experiment represents one of the final stages in FrameWorks' Strategic Frame Analysis™ — a research process that analyzes public opinion and develops and tests new framing strategies. The experiment investigates the effects of *values* — beliefs and goals that orient people's thinking and attitudes on social issues — on the public's support for a comprehensive set of ideas and attitudes that environmental health experts from a wide range of disciplines believe will improve environmental health outcomes. In this way, the experiment sought to identify values that could bridge gaps between expert and public understandings and create wider and productive public conversations about environmental health.[2]

EXECUTIVE SUMMARY

The experiment tested the ability of five candidate values to influence attitudes on five environmental health outcome measures. Four of the candidate values were chosen because of their effectiveness in past experiments on issues related to environmental health (climate change and social determinants of health, for example); the final value (*Health Individualism*) was included in the experiment because of its prevalence in the media's coverage of environmental health issues.[3] The values tested were as follows:

- **Fairness Between Places**, which emphasizes the importance of giving everyone equal access to environmental conditions that foster positive human health.

- **Prevention**, which highlights the importance of doing things now to prevent problems in the future.

- **Protection**, which underscores government's role in protecting its citizens from risk and danger.

- **Pragmatic Preparation for the Future**, which underscores the importance of taking care of social problems in a sensible way in order to prepare for the future.

- **Health Individualism**, which concentrates on the idea that individuals are responsible for their own health.

The following five groups of questions — what we refer to as "scales" — were used to measure the effect of each of the values on respondents' attitudes toward environmental health issues:

1. **Government/Public Funding,** which measures respondent attitudes about the importance of having a strong role for government in environmental health work and robust government funding for this work.

2. **Support for the Environmental Health Discipline**, which measures attitudes about the importance of developing the profession of environmental health.

3. **Upstream Thinking**, which measures respondent beliefs about the need for proactive and preventive environmental health approaches.

4. **Built Environment**, which gauges the degree to which people think it is important to create infrastructure that supports human health.

5. **Salience of Environmental Health Issues**, which measures prioritization of environmental health concerns relative to other social issues.

Results and Recommendations

1. **A clear winner:** Of the five values tested, *Fairness Between Places* was most effective in orienting public thinking towards an expert view of environmental health.[4] This value was successful in increasing support for all the outcomes tested. It was particularly good at increasing support for the discipline of environmental health and for devoting additional public funds to support this work.

    FrameWorks' qualitative research (reported separately) suggests that this value's success in reframing environmental health lies in its ability to pull systems-level thinking and collective concerns to the cognitive forefront, while pushing more individualistic ways of thinking about health (that health is the responsibility of the individual) into the background of consideration. The value's success is also due to its ability to replace zero-sum notions that helping some people comes at the expense of the well-being of others with the idea that everyone, regardless of where they live, deserves to live in a healthy environment.

    RECOMMENDATION: Environmental health communicators should employ the value of *Fairness Between Places* in their messaging. Below is an example of the value, but communicators should use their judgment, skill and creativity in crafting and deploying the value, given their particular communication goals and audiences.

    > *Americans, regardless of where they live, deserve to live in environments that support positive health. Taking steps to promote fairness between places is part of making sure that all Americans have the opportunity to enjoy health and meet their potential. We need to improve the systems that support healthy environmental conditions and put in place systems that reduce and respond to environmental threats so that all of our communities are healthy. This requires devoting more resources to the places that face the greatest threat to make sure that all Americans have the opportunity to live in healthy communities.*

2. **Some aspects of environmental health are harder to elevate with values than others:** Increasing support for more nuanced aspects of environmental health — such as measures designed to improve built environments, or shift attention from immediate to more "upstream" environmental factors that affect human health — was difficult. In other words, *Fairness Between Places* is more effective at moving attitudes related to broader issues like government intervention and general support for environmental health work than in changing perspectives on more particular ideas that require robust understandings of *how* environments affect human health.

RECOMMENDATION: The ability of values to achieve some but not all of the work necessary to reframe environmental health points to the need for a communications strategy that includes other frame elements to accompany the value of *Fairness Between Places*. Research on Explanatory Metaphors (analogies that map a complicated topic onto something familiar in order to translate concepts and information) will produce communication tools that address the areas where the value of *Fairness Between Places* proved less effective.

BACKGROUND

Why Values?

Research by the FrameWorks Institute and others strongly suggests that the best route toward changing the way that people think about complex social issues lies in improving issue understanding via framing.[5] Values are a critical part of framing. Research has shown that, absent a value at the top of a communication, people struggle to see the point of engaging with an issue and are left to their own devices when it comes to understanding why an issue matters.[6] In addition to providing the motivation for issue engagement, values also provide people with goals around which they organize their beliefs.[7] In this way, *values serve as fundamental organizing principles that people use to evaluate social issues and reach decisions*.

As a practical matter, the values contained within alternative frames compete for use in thinking.[8] The frame, with its integrated value, that "wins" this competition guides subsequent thinking and responses. Thus, how social issues are aligned with specific values has a significant impact on how the public reasons about and evaluates both the causes of, and solutions to, social problems. In short, *values are a potent tool in allowing people to appreciate new perspectives, consider new information and make more informed decisions about social issues*.

We define an effective value as one that is "sticky," easily communicable, and that helps people reach productive understandings and decisions on the issues in question. FrameWorks has a potent advantage in this search for effective values: we do not start from scratch. Instead, FrameWorks' existing research has found a set of values that have been effective in domains related to environmental health or in domains that share similar conceptual challenges (shifting from individual to systemic ways of thinking about health for example). For this reason, the current study builds on previous efforts by exploring the relationship between values and public attitudes about a set of outcomes that capture the goals of environmental health experts and practitioners.

EXPERIMENTAL DESIGN

This survey experiment used a sample that statistically represents the population of registered voters in United States to answer the following research question:

- What value should environmental health communicators use to expand public understanding of and support for the issue of environmental health?

To answer this question, the values listed below were presented to five randomly assigned groups of respondents. Each of these groups read a different candidate value with each group seeing only one value. After seeing this value, respondents answered the 25 outcome questions (for a list of these questions, see the Appendix). One additional randomly constituted group functioned as an experimental control: Here, respondents were not exposed to a value but still answered all the outcomes questions.

The sample was taken from an online panel of over three million adults who have volunteered to participate in social science and consumer research. Among these panelists, the 2,600 participating in this study were selected according to two criteria: first, their willingness to participate in the study; and, second the match between their demographic characteristics, including age, gender, race, education and political partisanship, and population statistics for the United States, as a whole.[9]

Candidate Values

Respondents were exposed to one of the following five values; each was presented in the guise of a media editorial, the exact wordings of which appear in the Appendix. Four of the five values tested in the experiment were selected because of their effectiveness in past reframing experiments, where they were found to be effective at addressing conceptual challenges similar to those that exist in the area of environmental health. A fifth value, *Health Individualism*, was included because of its prominence in public, media and expert discourse.[10]

1. *Fairness Between Places*
   This value emphasizes the importance of giving everyone an equal chance to access the resources and opportunities that the country has to offer — in this case, the chance to live in healthy environmental conditions. In so doing, the value seeks to cultivate population-level thinking about environmental health conditions and collective senses of responsibility for creating, improving or remediating those conditions. This value has performed successfully in past FrameWorks research, especially with regard to racial issues,[11] rural policy[12] and immigration.[13]

2. *Prevention*
This value highlights the importance of doing things now to prevent problems in the future. It was included here because it dovetails with the experts' emphasis on the importance of proactive measures in environmental health work. In previous FrameWorks research, this value has proven effective in domains including budgets and taxes[14] and health care reform.[15]

3. *Protection*
This value emphasizes the government's role as the protector of the nation. This value was included because of its prominence in expert interviews, as well as its alignment with a positive and productive way that public has of thinking about the government's role in and responsibility for environmental health work.[16] This value has also proven to be successful more generally in helping people think more productively about the role of government in society.[17]

4. *Pragmatic Preparation for the Future*
This value underscores the importance of taking care of problems in a sensible way in order to prepare for a collective future. It was included here for its potential to trigger constructive thinking about proactive solutions and collective responsibility. This particular articulation of the value is a hybrid of values that have been effective in previous FrameWorks research on health care and education reforms.[18]

5. *Health Individualism*
This value concentrates on the idea that individuals are responsible for their health. FrameWorks' analysis of media coverage of environmental health issues showed that this value has a prominent place in public discourse.[19] This value was included as a way to assess current practice and to provide a baseline against which to judge the other values.

Outcome Measures

The outcome measures used in the experiment were assembled from the analysis of a set of interviews conducted with environmental health experts, through participant observation at several meetings of environmental health organizations, and through consultations with our research partners at the APHA. These outcome measures were organized into five scales. Each scale is a set of related questions that tap into key areas of understanding related to environmental health. Again, the research question guiding the experiment was whether and to what extent the values tested influenced people's attitudes about these five areas of environmental health.

1. *Government/Public Funding*
   This set of questions measured respondents' support for both government involvement in environmental health issues and for greater funding for government work to address these issues. An example of a question from this scale is: "We need to put more public money towards strengthening and enforcing regulations and standards to ensure that the food people buy and eat is safe."

2. *Support for the Environmental Health Discipline*
   This scale measures support for the environmental health profession and the field's work. A sample question from this scale reads: "We should develop a national network of experts who collect, analyze and share information about ways that the environment affects our health."

3. *Upstream Thinking*
   This scale measures understanding of the need for proactive, preventative action that addresses fundamental conditions and root causes of environmental health issues. An example of a question from this scale is: "Everyone has the right to live in an environment that has been set up to be safe and healthy."

4. *Built Environment*
   This scale measures respondent perception of the need to and importance of making infrastructural changes that would improve human health. This scale assess respondents' willingness to endorse measures such as: "Building urban spaces where it is easy and safe to walk, bicycle and exercise outdoors should be a public priority."

5. *Salience of Environmental Health Issues*
   This scale measures respondents' general perceptions of the importance of environmental health issues. Ideally, an effective value would elevate the importance and priority of environmental health issues in the public agenda. The following is a sample question from this scale: "Doing more to ensure that people live in healthy environments should be a priority."

DATA

The survey took place between January 7, 2013, and January 28, 2013.[20] The sample included 2,600 registered U.S. voters, weighted on the basis of age, gender, education level and party identification to statistically represent all adult registered voters in the United States. Six hundred respondents were randomly assigned to the control group, which saw no values treatment but answered all outcomes questions, while the remaining 2,000 respondents were randomly assigned to one of the experimental conditions, in which case they read one of the five value treatments before answering the outcome questions.

Analysis

A value's effectiveness is assessed by determining the effect that exposure to that value has on the outcome measures. Multiple regression was used to compute these estimates. This statistical technique fits a straight line to the pattern of data made up of all the variables in that estimation. This line is fitted simultaneously across all dimensions of the data (one for each variable) in a way that maximizes its "fit." We report the slopes of this line as regression coefficients. These numbers chart the magnitude of each variable's effect, so the larger the coefficient, the greater the effect of the value on the outcome measure. Because each of the treatment variables is scaled to 100 points, the coefficients can be interpreted *as the percentage increase or decrease that the value has on respondents' support for a given outcome measure*.

Multiple regression offers two specific advantages in analyzing the data collected in this experiment. First, in all the results reported below, the regressions include measures for political party, gender, education and race as control variables; this means that the effects of these demographic control variables have been statistically removed from the results obtained for the values treatments — meaning that the effects reported hold across demographic variables, and that the results characterize the entire sample rather than being pushed or driven by any one value's performance in any demographic category. Second, the coefficients are accompanied by a measure of statistical significance that represents the strength of the result (the chance that the estimate is actually equal to zero). For example, the coefficient for the *Fairness Between Places* value, on the *Government/Public Funding* scale, is 3.4, indicating that exposure to that value moved respondents' support for those measures by an average of roughly three and a half percent and a significance level of less than 0.05, meaning that there is a less than 1-in-20 chance that the 3.4 estimate is actually zero. Low significance levels — ones that indicate a lower likelihood that an estimate is due to chance — increase our confidence in the results.
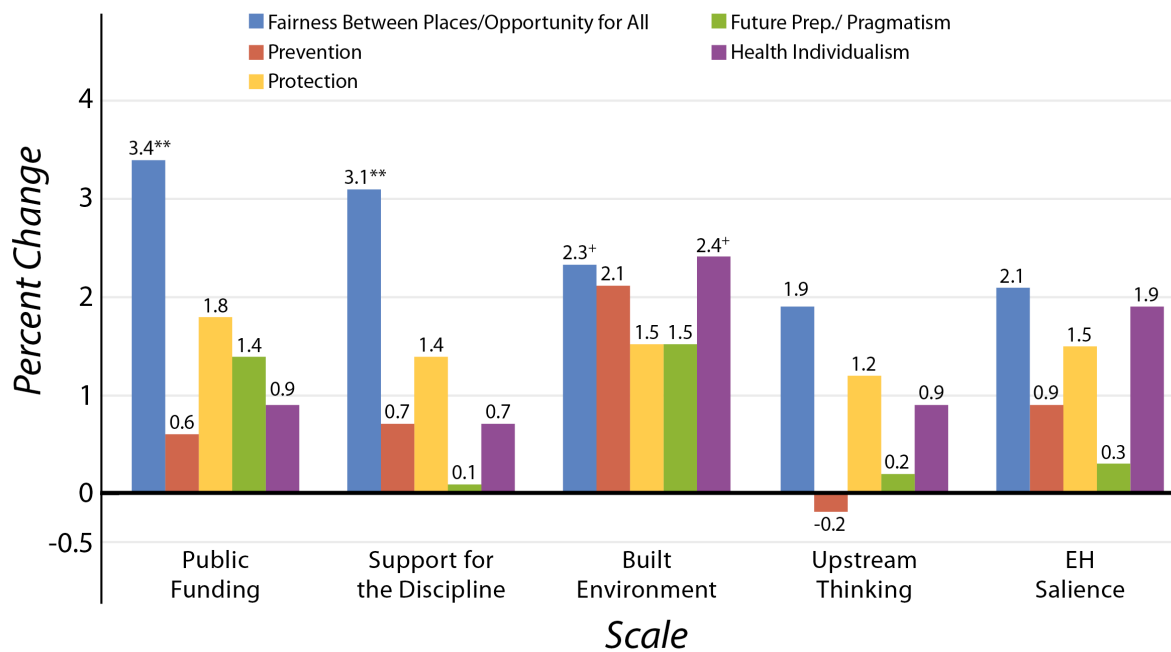
RESULTS

Here, we examine the values' performance on the outcome measures. In the next section, we conclude with a discussion of the findings and their implications for communicators.

Values Effects

Figure 1 presents the estimates obtained in the five regressions (one for each scale).

Figure 1:
Estimated Effects of the Values on the Policy Outcome Scales

"**" indicates the statistically significant effect of the *Fairness Between Places/Opportunity For All* value at the 0.05 level.

"+" indicates the statistically significant effects of the *Fairness Between Places/Opportunity For All* value, the *Prevention* value and the *Health Individualism* value at the 0.15 level.

As Figure 1 indicates, the *Fairness Between Places* value elevates support for the *Government/Public Funding* scale as well as the *Support for the Environmental Health Discipline* scale. In these two cases, *Fairness Between Places* decisively outperforms the

other four values, causing an almost three and a half percentage-point increase in support, with high statistical significance levels. These results indicate that we can confidently say that this value increases the willingness of the public to endorse measures to fund public solutions to environmental health problems and support the environmental health discipline.

The *Fairness Between Places*, *Prevention* and *Health Individualism* values boost support on the *Built Environment* scale by roughly two percentage points. While productive, this gain is only marginally statistically significant.

None of the values reach statistical significance on the *Upstream Thinking* or *Environmental Health Salience* scales. However, *Fairness Between Places* is the strongest performer on these scales — producing a gain of 2 percent. Put another way, *Fairness Between Places* marginally increases respondents' ability to consider more upstream factors that can affect the quality of people's lives, and the importance that they accord to environmental health issues.

CONCLUSIONS

Summary

1. ***Fairness Between Places* is a highly effective value for reframing aspects of the environmental health field and its work.** *Fairness Between Places* provides the best results of the five values tested—providing positive and significant increases to people's support on two key areas of the environmental health agenda. With the exception of the *Built Environment* scale, none of the other values had statistically significant effects on the outcome scales.

2. **Support for some areas of the environmental health agenda is hard to move with values.** It was easier for values to move attitudes on general policies, like increasing government intervention and providing public funding for environmental health work, than on more nuanced aspects of environmental health, like building infrastructure or adopting a more preventative approach to environmental health efforts.

Discussion

Why did Fairness Between Places perform so well?
The effectiveness of this value lies in the way it cultivates population-level thinking about environmental health impacts and public responsibility for addressing those impacts. Across a wide scope of research FrameWorks finds that Americans tend to see themselves first as individuals, and only secondarily — many times distantly — as members of a collective. That is, they have perspectives that make individual aspects (like decision-making and will power) of complex phenomena easy to see, but population and systems level influences and outcomes difficult to appreciate. Values can work against this tendency by reorienting people to think of themselves as part of something larger, moving them to think about problems at the collective and societal levels rather than through an individualist orientation. When seen from this perspective, the solutions to problems are not only or narrowly the responsibility of a single individual, but rather of the community or collective as a whole. The *Fairness Between Places* value creates this reorientation and opens people up to seeing the importance and appropriateness of collective responsibility and action.

The *Fairness Between Places* value is also effective because it contains an implicit call to action. By juxtaposing communities that have healthy environments with communities that do not, the value compels people to think about the need for public programs and actions to redress this imbalance. That fact that everyone has the right to live in a healthy environment — a statement that our research shows Americans believe in —

and some communities are being deprived of this right motivates people to support actions to remediate this state of affairs. The collective "us" is prompted to action by two strong beliefs. On the one hand, there is the powerful belief that health is good, which is heavily reinforced in the media.[21] By explaining that some communities bear the brunt of environmental health problems in ways that negatively affect their health, the *Fairness Between Places* value leverages this deep belief. Notice, also, that this is not a heavy-handed message; it does not point to specific episodes affecting specific (minority) communities; instead, the value's general gesture in the collective direction is enough to bring constructive thinking to the fore and realign attitudes with a host of key expert recommendations.

Finally, it should be underlined that the *Fairness Between Places* value discourages zero-sum thinking. Zero-sum thinking refers to the way in which Americans are apt to think of issues of public resources through the assumption that the more "they" have, the less "we" have. The *Fairness Between Places* value channels thinking away from this way of understanding public resources, suggesting that preventing or addressing environmental health issues in any one location does not negatively impact the rest of society, but, rather, strengthens it — replacing zero-sum thinking with an "all for all" perspective.

For all these reasons, FrameWorks strongly recommends using the *Fairness Between Places* value at the top of messages about designed to increase public understanding and support of environmental health work.

Why didn't Fairness Between Places lift all the outcome scales?
It should not be surprising that a single value did not increase understanding and support across *all* the outcomes of interest. FrameWorks has found that it is rare that one frame element can address all the communications challenges inherent in a complex issue like environmental health. For this reason, we counsel communicators to integrate values into communication in concert with *other frame elements*. We expect Explanatory Metaphors to be particularly important and powerful in addressing some of the outcome areas that values failed to significantly affect (upstream thinking, for example). Explanatory Metaphors — currently being developed and tested — will translate core precepts of the environmental health discipline into "sticky" metaphors that will expand public understandings of environmental health. In so doing, we believe these metaphors will address areas where the successful value proved least effective — particularly the role that built environments and upstream factors play in human health. Using these metaphors along with the *Fairness Between Places* value will allow communicators to address a fuller set of the field's goals and priorities.

Why does the Health Individualism value only positively effect one outcome area?
As a value, *Health Individualism* produced no positive change, with the exception of the *Built Environment* scale. The reason for general ineffectiveness of this value seems

relatively straightforward. On the one hand, people are willing to admit that everyone has a right to be healthy, as evidenced in FrameWorks' Cultural Models interviews on environmental health.[22] However, this admission quickly activates the Cultural Model of *Health Individualism*, which holds that health is largely a matter of *individual* rather than public responsibility. Once this perspective is guiding the way people think, it is difficult for proposals that focus on systems-level solutions to be productively considered.

There is one exception to the value's poor performance in the experiment. People who were exposed to the *Health Individualism* value responded positively to the *Built Environment* scale. This is likely because thinking about individual health and responsibility created a perspective from which respondents could see the importance of having the infrastructure required for individuals to engage in healthy behaviors and choices. Put differently, from the perspective that health is an individual responsibility and lifestyle choice, it follows that individuals *should* have the spaces in which to exercise these individual rights and obligations — creating support for ideas such as "Building urban spaces where it is easy and safe to walk, bicycle and exercise outdoors should be a public priority."

As FrameWorks' media content analysis revealed, 80 percent of news pieces mentioned health exclusively as the value motivating the story's coverage of an environmental health issue.[23] This media focus presents both an opportunity and a challenge. The widespread use of values in this coverage may be an opening into which to substitute *Fairness Between Places* in the place of the less productive, but dominant, *Health Individualism* value. On the other hand, if the *dominance* of the *Health Individualism* value in the media makes it hard to shift toward more productive values, media coverage is likely to continue to create unproductive ways for the public to think about environmental health work.

TAKEAWAY RECOMMENDATIONS FOR
ENVIRONMENTAL HEALTH COMMUNICATORS

- Environmental health communicators should employ the value of *Fairness Between Places* in their messaging. Communicators should use their judgment and creativity in crafting and deploying the value given their particular communication goals and audiences.

- The fact that a single frame element cannot achieve all of the field's communications goals is consistent with FrameWorks' research on other complicated social issues.[24] This points to the need for other frame elements to accompany the effective value as part of a broader reframing strategy. Ongoing research on the role of Explanatory Metaphors in communicating about environmental health work is yielding tools that address the areas in which values struggled in this experiment.

APPENDIX: EXACT WORDING OF VALUE TREATMENTS, CULTURAL MODEL QUESTIONS AND OUTCOME MEASURES

Value Treatments

(Inserted in all) The following passage was taken from an editorial that appeared in a major newspaper. Please read carefully and answer the questions that follow.

1. **Fairness Between Places/Opportunity For All**

   Header: Americans deserve healthy environments no matter where they live.
   Lately there has been a lot of talk about how important it is to make sure that all Americans, no matter where they live, have the opportunity to live in healthy environmental conditions. To do this we need to be fair to all communities by improving systems and programs that will give everyone the opportunity to live free from environmental threats. This means we need to devote more resources to places that are facing the greatest threats. Put simply, it is only fair that every American has the opportunity to live in a healthy community.

   Pullout: We need to devote resources to places that are facing greater threats.

2. **Prevention**

   Header: We need to take steps now to prevent environmental health problems.
   Lately there has been a lot of talk about how important it is to take action now to make sure that all Americans continue to live in healthy environmental conditions in the future. To do this we need to anticipate our needs and start setting up systems and programs to prevent people from being harmed by environmental threats. This means we need to devote more resources to these problems today, instead of waiting and letting them get worse. Put simply, doing things now will allow us to be healthier in the future.

   Pullout: We need to act now instead of waiting until problems get worse.

3. **Protection**

   Header: Americans need to be protected from environmental health threats.
   Lately there has been a lot of talk about how important it is for federal, state and local governments to take action to protect Americans and make sure that we all live in healthy environmental conditions. To do this they need to improve the systems

and programs that will keep Americans from being harmed by environmental threats. This means we need to devote more resources to this issue so that the government can protect us from these problems. Put simply, encouraging the government to take protective action will safeguard our health.

Pullout: When the government can protect us from threats, we are all safer.

4. Future Preparation/Pragmatism/Promotion

Header: We need to get ready for the future by promoting environmental health.
Lately there has been a lot of talk about how important it is to take responsible action to prepare for a future where Americans will live in healthy environmental conditions. To do this we should be proactive in improving systems and programs that will get all of us ready to deal with the challenge of environmental threats. This means we need to devote more resources to preparing us to face difficulties. Put simply, doing these things will prepare us to have a healthier future.

Pullout: We can act responsibly to ensure a healthy future.

5. Health Individualism

Header: Our health is our responsibility
Lately there has been a lot of talk about how important it is for individuals to make good choices about their environmental conditions and take responsibility for their own health. To do this we should make sure that each person is making the best decisions for themselves and their family. This means people need access to good information about the consequences of their health and lifestyle choices. Put simply, people should take control of their health and the environments they live in.

Pullout: Individuals need to take control of their lives and the environments they live in.

Outcome Measures

(Inserted in all) The following are a number of statements about education and learning. Please indicate whether you agree strongly, agree, disagree or disagree strongly with these proposals:

Attitude and Policy Questions

A. Government/Public Funding

1. We should provide more federal resources to states and localities for disaster preparedness and response than we do now.

2. We need to put more public money towards strengthening and enforcing regulations and standards to ensure that the food people buy and eat is safe.

3. To ensure our safety, government agencies should control harmful environmental agents and assess new and emerging environmental hazards.

4. We should have stricter regulation and monitoring of lead and other toxins in paints and other products.

5. We should devote more public funds to making sure that tap water is safe to drink.

B. Funding Public Expertise/Support for Environmental Health Discipline

1. We should provide more support for research that investigates how the chemicals in our food, our air, and the products we buy affect our health.

2. We should support programs that help to keep us safe as we go about our daily lives, like eating in restaurants, swimming in pools and drinking tap water.

3. We should develop a national network of experts who collect, analyze and share information about ways that the environment affects our health.

4. We should build a system to improve the way that scientists and researchers across the country share information about environmental health threats.

5. We should support research to determine the best way of dealing with environmental threats to communities' safety.

C. Built Environment

1. Town and city planners should always consider the effects of their zoning and infrastructure decisions on people's health.

2. Building urban spaces where it is easy and safe to walk, to bicycle and to exercise outdoors should be a public priority.

3. No matter where they are located, all houses and buildings should be examined by certified inspectors to ensure their safety.

4. Communities, neighborhoods and schools should not be located close to highways, ports bus depots or other sources of air pollution.

5. Government investments in public transportation benefit communities by helping to decrease congestion, improve air quality and increase physical activity.

D. *Upstream Thinking*

1. Everyone has the right to live in an environment that has been set up to be safe and healthy.

2. It should be a public priority to make high-quality and healthy food easy to get and affordable.

3. We should require that all major government legislation be carefully assessed for its impacts on human health before it is passed.

4. More public resources should be devoted to research on climate change and its effects on human health.

5. We should take steps to avoid exposures to things that cause harm and illness. This will save lives and money.

E. *Salience of Environmental Health Issues*

1. There are many important threats to people's health in the environment today.

2. I am concerned about the effect of pollution on me and my family.

3. Doing more to ensure that people live in healthy environments should be a priority.

4. The amount of pollution in the air we breathe, food we eat, and water we drink makes me anxious.

5. I wish regulators would to do more to protect people from environmental threats to their health.

1 For more information on the project, go to: http://www.frameworksinstitute.org/ environmental_health.html

2 For more information on these gaps, see: Lindland, E.H., & Kendall-Taylor, N. (2011).*People, polar bears, and the potato salad: Mapping the gaps between expert and public understandings of environmental health.* Washington, DC: FrameWorks Institute.

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ABOUT THE FRAMEWORKS INSTITUTE

The FrameWorks Institute is an independent nonprofit organization founded in 1999 to advance science-based communications research and practice. The Institute conducts original, multi-method research to identify the communications strategies that will advance public understanding of social problems and improve public support for remedial policies. The Institute's work also includes teaching the nonprofit sector how to apply these science-based communications strategies in their work for social change. The Institute publishes its research and recommendations, as well as toolkits and other products for the nonprofit sector, at www.frameworksinstitute.org.

Please follow standard APA rules for citation, with FrameWorks Institute as publisher.

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