

Shifting the Narrative about Child Obesity

Methods Supplement

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Appendix A: Research Methods and Samples

Stakeholder Interviews

To understand what the field wanted to communicate about child health and obesity, FrameWorks conducted 15 interviews over Zoom from February to March 2023 with experts and advocates working on child health and obesity. In each interview, the stakeholder was asked a series of prompts and given hypothetical scenarios to 1) explain their work, experience, and perspective; 2) break down complicated relationships; and 3) simplify concepts relating to children's health and obesity. Interviews were semi-structured in that FrameWorks asked preset questions but also repeatedly asked for elaboration and clarification and encouraged members of the field to expand on concepts they identified as particularly important.

A draft of the core ideas emerging from these interviews was shared and discussed in a 90-minute webinar with the project advisory council in June 2023. The advisory council included some of the stakeholders who had participated in the interviews, as well as others working in the field of child health and childhood obesity. The core ideas formed the basis for the project's communications tasks, which were elaborated further on in the process (see Frame Design below).

Exploratory Peer-Discourse Sessions

FrameWorks conducted exploratory peer-discourse sessions, a type of focus group, with 36 participants over Zoom in July 2023. Participants were selected based on their self-identification with key demographics, including age, gender, race/ethnicity, household income, education level, political party identification, and lived experience of weight stigma.

A primary goal of these focus groups was to identify prevailing mindsets about children's health, childhood obesity, and related topics, then compare those with previous FrameWorks findings about these mindsets. We were looking to identify how people think rather than what they think. Studying cultural mindsets is different from studying public opinion, which documents people's surface-level responses to questions. By understanding the deep, often tacit assumptions that structure how people think about children's health and obesity, we were able to identify the obstacles that prevent people from understanding health inequities and their connection to childhood obesity as well as the existing ways of thinking that can help people arrive at a fuller understanding of these issues.

Frame Design

To identify effective ways of communicating about the systemic factors affecting children's health and childhood obesity, FrameWorks developed a set of communications tasks the frames needed to address:

- **Task #1:** Build public understanding of the environmental factors that influence poor health and obesity in childhood.
- **Task #2:** Overcome harmful narratives about obesity and offer restorative models for understanding child health.
- **Task #3:** Build public support for policies to address inequities in health access and obesity risk.
- **Task #4:** Build a sense of collective efficacy that improving child health and reducing obesity through systemic change is possible.
- **Task #5:** Expand public understanding of child health and obesity (as incorporating mental health and overall wellness).
- **Task #6:** Build a sense of collective efficacy around addressing weight stigma faced by children.

FrameWorks researchers then brainstormed potential reframing strategies that might accomplish one or more of these tasks (for example, metaphors, values, and issue frames). After generating a list of candidate framing ideas to test, FrameWorks solicited feedback on these ideas from the advisory council to ensure the frames were both apt and potentially usable for the field. Based on this feedback, FrameWorks refined a set of frames and brought them into empirical testing.

Experimental Surveys

FrameWorks researchers refined the frames to bring forward for testing in the survey experiment. Two experimental surveys involving a total sample of 6,754 adults in the US were conducted in January and May 2024. The experiments were designed to test the effectiveness of frames on shifting public understanding, attitudes, and support for programs and policies that prevent childhood obesity and promote better understanding of children's health issues. Target quotas were set according to national benchmarks for age, sex, race/ethnicity, household income, education level, and political party affiliation. See Table 1 for more information about the sample composition for each experiment. Data was not weighted.

Table 1: Survey Experiments—Participant Demographic Information¹

Variable	Level	Wave 1 %	Wave 2 %
Gender	Male	49	49
	Female	51	50
	Non-binary/Other	< 1	< 1
Age	Under 18	0	0
	18–34	25	20
	35–49	27	29
	50–64	25	26
	65+	23	25
Income	0–24,999	19	18
	25,000–49,999	23	24
	50,000–99,999	32	33
	100,000–149,999	16	15
	150,000 or more	11	9
Education	High school diploma or less	32	29
	Some college or associate's degree	30	31
	Bachelor's degree	23	25
	Graduate degree	15	15
Marital Status	Single	36	35
	Married	45	45
	Married but separated	2	2
	Divorced	12	12
	Other	6	5

¹Percentages listed may not equal exactly 100% when added due to rounding.

Table 1: Survey Experiments—Participant Demographic Information, continued¹

Variable	Level	Wave 1 %	Wave 2 %
Race/Ethnicity	Caucasian/white (non-Hispanic/Latino)	58	56
	Hispanic or Latino	16	17
	Black/African American	15	16
	Asian	6	6
	American Indian/Alaska Native	1	2
	Hawaiian/Pacific Islander	< 1	< 1
	Other/bi-racial or multi-racial	3	4
Political Party	Democrat	41	43
	Republican	35	33
	Independent	21	19
	Other	4	5
Political Ideology	Extremely left-wing	5	6
	Left-wing	17	17
	Center	51	51
	Right-wing	21	19
	Extremely right-wing	6	7
Party Leaning ²	Closer to Democratic Party	25	25
	Closer to Republican Party	22	26
	Neither	53	49
Are you currently the parent or guardian of a child who is under 18 years of age?	Yes	31	29
	No	69	71

²For participants who chose “Other” for their political party.

³For participants who responded “yes” to *Have you ever personally experienced weight stigma or anti-fat bias?*

Table 1: Survey Experiments—Participant Demographic Information, continued¹

Variable	Level	Wave 1 %	Wave 2 %
Have you ever personally experienced weight stigma or anti-fat bias?	Yes	26	32
	No	71	67
	Prefer not to answer	2	2
Did you experience weight stigma or anti-fat bias as a child? ³	Yes	64	67
	No	36	32
	Prefer not to answer	1	1
Have you ever experienced weight stigma or anti-fat bias in a medical setting? ³	Yes	40	38
	No	59	61
	Prefer not to answer	1	1
Have you ever experienced weight stigma or anti-fat bias in a transportation setting, like on an airplane? ³	Yes	18	15
	No	82	84
	Prefer not to answer	1	1
Have you ever personally experienced disordered eating?	Yes	18	20
	No	81	79
	Prefer not to answer	1	1
Did you experience disordered eating as a child? ⁴	Yes	57	55
	No	42	44
	Prefer not to answer	1	1

Participant recruitment and survey hosting were completed by Dynata. Participants were recruited from some combination of the following sources: proprietary loyalty panels, open invitation, or integrated channels that recruit from partnerships with external sources, such as publishers or social networks. All participants opted in to complete the survey. Participants with Dynata earn points for completing surveys, which they can then exchange for various rewards. These rewards vary by panel and recruitment method but may include things such as airline miles or gift cards.

⁴For participants who responded “yes” to *Have you ever personally experienced disordered eating?*

Participants with Dynata are required to verify their identity at multiple points during survey enrollment and routing. Dynata uses various methods, such as third-party validation and digital fingerprinting, to detect fraud, identify bots, and monitor and detect suspicious activity from participants.

Participants were not allowed to complete the survey more than once. Participants who did not fully complete the survey were removed from the data and were not paid. In addition, participant data was removed if they completed the survey within 1/3 of the median survey time, if they straightlined, or provided nonsensical responses to the open-ended questions included in the survey.

After providing consent to participate, participants were randomly assigned to one of several experimental conditions. All tested frames can be found in Appendix B.

Participants assigned to an experimental condition were asked to read a short message, which they were required to view for at least 30 seconds, before answering a series of survey questions. These questions were designed to measure specific outcomes of interest. Each battery consisted of multiple questions and were primarily measured using Likert-type items with five- or seven-point response scales. Open-ended questions requiring free-text answers were also included in the survey, but were not analyzed.

Prior to any inferential analysis, we conducted a series of randomization checks. Chi-square analyses indicated that all target demographics were evenly distributed across conditions. We also conducted a series of exploratory factor analyses to determine the psychometric qualities of our outcome scales. Items with rotated factor loadings below $|.50|$ were dropped from each battery. Once finalized, Cronbach's alpha (α) was used to assess internal consistency among the items in each battery. Given that there are various heuristics for determining acceptable internal consistency, we determined that batteries with internal consistency scores approaching $.60$ or above would be considered acceptable. After assessing internal consistency, items within each battery were combined into composite scores that indicated participants' average ratings of the attitudes or stereotypes measured by each battery. The table below provides more information on these composite scores. Final survey items from the experiments can be found in Appendix B.

Table 2: Psychometric Properties of Survey Batteries

Wave 1 Batteries	# of items ⁵	Internal Consistency (α)	Composite Mean ⁶
Government Responsibility	4	.90	77.21
Parent Responsibility	3	.87	65.63
Collective Efficacy to Reduce Weight Stigma	3	.87	68.85
Collective Efficacy to Reduce Child Obesity	3	.87	73.88
Collective Efficacy to Improve Child Health	3	.89	79.12
Health Individualism and Race	3	.86	58.01
Health Systems and Race	3	.85	61.09
Reducing Child Weight Stigma	4	.73	41.85
Reducing Weight Stigma—Parent Blame	3	.89	49.38
Pathologizing Black Culture	3	.81	47.89
Policy Support—Anti-Discrimination/Bullying	3	.81	58.11
Policy Support—Food Affordability/Accessibility	3	.74	67.81
Policy Support—Corporate Responsibility	4	.85	57.14
Policy Support—Community Design	3	.89	68.92

⁵ Indicates number of items remaining in the scale after item reduction.

⁶ Composite means are shown for control condition only.

Table 2: Psychometric Properties of Survey Batteries, continued

Wave 2 Batteries	# of items ⁷	Internal Consistency (α)	Composite Mean ⁸
Government Responsibility	4	.90	63.31
Parent Responsibility	3	.89	66.13
Collective Efficacy to Reduce Weight Stigma	3	.88	61.96
Collective Efficacy to Reduce Child Obesity ⁹	2	.72 ⁹	68.82
Collective Efficacy to Improve Child Health	4	.89	76.96
Health Individualism and Race	3	.86	54.10
Health Systems and Race	3	.85	60.88
Reducing Child Weight Stigma	9	.86	37.47
Reducing Weight Stigma—Parent Blame	3	.88	41.12
Reducing Weight Stigma—Mother Blame	3	.84	42.40
Pathologizing Black Culture	3	.82	45.03
Understanding Harms of Weight Stigma	3	.87	77.62
Understanding Children’s Health	3	.61	77.88
Policy Support—Anti-Discrimination/Bullying	3	.82	63.69
Policy Support—Food Affordability/Accessibility	3	.82	58.83
Policy Support—Corporate Responsibility	4	.85	55.97
Policy Support—Community Design	3	.91	70.43

After conducting the preliminary analyses described above, we used multiple regression analysis to determine whether there were significant differences in the outcomes between each of the experimental frame conditions and the control condition. A threshold of $p < .05$ was used to determine whether the experimental frame conditions had any significant effects.

As with all research, it is important to remember that results are based on a sample of the population, not the entire population. As such, all results are subject to margins of error.

⁷ Indicates number of items remaining in the scale after item reduction.

⁸ Composite means are shown for control condition only.

⁹ Spearman’s Rho was used to calculate internal consistency because this battery had fewer than 3 items.

Appendix B: Tested Framing Strategies

Survey Experiment

WAVE 1

Metaphors

Mosaic

We can think of children’s health like a mosaic. Many different pieces are required to complete the picture of kids’ health. But when there are pieces missing, the mosaic of children’s health isn’t whole.

There are many different components that affect children’s health—safe and stable housing, access to green spaces, and affordable, healthy food. But our society prevents some communities from accessing these pieces, which means that many families and children don’t have what they need for a complete picture of good child health. Critical pieces of the mosaic are most often denied to communities of color, which means that children of color often face more health issues, including childhood obesity.

To prevent health issues like child obesity, families and children need access to good housing, green spaces, and healthy food. By making sure that our society doesn’t keep any communities from accessing these resources, we can make sure that all communities have the pieces they need for a complete mosaic of children’s health.

Building Blocks

Good children’s health requires a set of sturdy building blocks. These building blocks give kids a stable structure to support their health. But when blocks are missing, the base for children’s health becomes unstable.

There are many blocks that build the structure supporting children’s health—safe and stable housing, access to green spaces, and affordable, healthy food. But our society prevents some communities from accessing these blocks, which means that many families and children don’t have what they need to build the base for good child health. Critical blocks are denied most often to communities of color, which means that children of color often face more health issues, including childhood obesity.

To prevent health issues like child obesity, families and children need access to good housing, green spaces, and healthy food. By making sure that our society doesn't keep any communities from accessing these resources, we can make sure that all communities have the blocks they need to build a stable structure for children's health.

Jigsaw Puzzle (general)

We can think of children's health like a jigsaw puzzle. Many different pieces are required to fit together and complete the puzzle of kids' health. But when pieces are missing, the picture of children's health isn't whole.

There are many different pieces that affect children's health—safe and stable housing, access to green spaces, and affordable, healthy food. But our society prevents some communities from accessing these puzzle pieces, which means that many families and children don't have what they need to complete the puzzle of good child health. These critical puzzle pieces are denied most often to communities of color, which means that children of color often face more health issues, including childhood obesity.

To prevent health issues like child obesity, families and children need access to good housing, green spaces, and healthy food. By making sure that our society doesn't keep any communities from accessing these resources, we must make sure that all communities have the pieces they need to complete the puzzle of children's health.

Jigsaw Puzzle (corners & edges)

We can think of children's health like a jigsaw puzzle. All puzzles have different kinds of pieces, but every puzzle needs corner and edge pieces. When these pieces are missing, the picture of children's health can't be completed.

These corner and edge pieces allow the picture of children's health to come together—safe and stable housing, access to green spaces, and affordable, healthy food. But our society prevents some communities from accessing these puzzle pieces, which means that many families and children don't have what they need to complete the puzzle of good child health. These critical corner and edge pieces are denied most often for communities of color, which means that children of color often face more health issues, including childhood obesity.

To prevent health issues like child obesity, families and children need access to good housing, green spaces, and healthy food. By making sure that our society doesn't keep any communities from accessing these resources, we must make sure that all communities have the key corner and edge pieces they need to complete the puzzle of children's health.

Values

Opportunities for All, across Places

As a society, we believe that all children should have access to opportunities for good health, no matter where they live. But right now, our zip code determines the opportunities we have access to, which means that too many children don't have what they need for good health.

Opportunities for access to safe and stable housing, green spaces, and affordable, healthy food ensure that kids have what they need for good health. But our society denies some neighborhoods these opportunities—most often neighborhoods of color. This means that children of color face more health issues, including higher rates of childhood obesity.

Zip code shouldn't determine the opportunities kids have for good health. To prevent health issues like child obesity, we need to prioritize policies that support all kids' health. By offering free, healthy school meals, making better housing more available, and investing in more public green spaces, we can make sure that all children—no matter where they live—have access to opportunities for good health.

Resources for All, across Places

As a society, we believe that all children should have access to the resources they need for good health, no matter where they live. But right now, our zip code determines the resources we get, which means that too many children don't have what they need for good health.

Resources like safe and stable housing, access to green spaces, and affordable, healthy food ensure that kids have what they need for good health. But our society denies some neighborhoods these resources—most often neighborhoods of color. This means that children of color face more health issues, including higher rates of childhood obesity.

Zip code shouldn't determine the resources kids have for good health. To prevent health issues like child obesity, we need to prioritize policies that support all kids' health. By offering free, healthy school meals, making better housing more available, and investing in more public green spaces, we can make sure that all children—no matter where they live—have access to the resources they need for good health.

Opportunities for All

As a society, we believe that all children should have access to opportunities for good health. But right now, too many children don't have what they need for good health.

Opportunities for access to safe and stable housing, green spaces, and affordable, healthy food ensure that kids have what they need for good health. But our society denies these opportunities to some communities—most often communities of color. This means that children of color face more health issues, including higher rates of childhood obesity.

If we truly believe that all children should have access to the opportunities they need for good health, then we need to prioritize policies that support the health of all kids. By offering free, healthy school meals, making better housing more available, and investing in more public green spaces, we can prevent health issues like child obesity, and make sure that all children have access to opportunities for good health.

Resources for All

As a society, we believe that all children should have access to the resources they need for good health. But right now, too many children don't have what they need for good health.

Resources like safe and stable housing, access to green spaces, and affordable, healthy food ensure that kids have what they need for good health. But our society denies these resources to some communities—most often communities of color. This means that children of color face more health issues, including higher rates of childhood obesity.

If we truly believe that all children should have the resources they need for good health, then we need to prioritize policies that support the health of all kids. By offering free, healthy school meals, making better housing more available, and investing in more public green spaces, we can prevent health issues like child obesity, and make sure that all children have access to the resources they need for good health.

Targeted Justice

Health justice means making sure that children have access to the specific resources they need for good health. But right now, too many kids don't have what they need for good health. This is unjust.

Resources like safe and stable housing, access to green spaces, and affordable, healthy food ensure that kids have what they need for good health. But our society denies these resources to some communities—most often communities of color. This means that children of color unfairly face more health issues, including higher rates of childhood obesity.

If we truly believe in justice, then we need to prioritize policies that support the health of all kids, but especially those who need it most. By offering free, healthy school meals, making better housing more available, and investing in more public green spaces, we can prevent health issues like child obesity, and make sure that all children have fair access to the resources they need for good health.

Collective Responsibility

As a society, we have a collective responsibility to ensure that all children have what they need for good health. But right now, too many children don't have what they need, and it means we are not living up to our responsibility to support children's health.

We have a responsibility to ensure that kids have the resources they need for good health—like safe and stable housing, access to green spaces, and affordable, healthy food. But right now, these resources are being denied to some communities—most often communities of color. This means that children of color face more health issues, including higher rates of childhood obesity.

We have a collective obligation to prioritize policies that support the health of all kids. By offering free, healthy school meals, making better housing more available, and investing in more public green spaces, we can prevent health issues like child obesity, and live up to our responsibility to support the health of all children.

Health Legacy

As a society, we believe in passing on a healthier world to our children. But right now, too many children don't have what they need for good health. We must do more now to ensure a healthier future for our kids.

Resources like safe and stable housing, access to green spaces, and affordable, healthy food help build healthy communities. But right now, these resources are being denied to some communities—most often communities of color. This means that we are leaving children of color behind to face more health issues, including higher rates of childhood obesity.

We can create a healthier world for our children if we prioritize policies that support the health of all kids, now. By offering free, healthy school meals, making better housing more available, and investing in more public green spaces, we can build healthier communities for all children, and leave a healthy legacy for future generations.

Explanations

Food Systems

Our food systems—the way we make, sell, and market food—are designed to make a profit. Unhealthy food is cheaper to produce, and it is often advertised toward children. This advertising influences their food attitudes and preferences and steers them away from healthy food. All of this means that our food systems were designed to make money at the expense of children's health.

Since unhealthy food is cheaper to produce and sell, it's more widely available. And since fresh foods are expensive and don't have a long shelf life, unhealthy food is the only option available in many communities. This is particularly true for neighborhoods of color, where healthy, affordable foods have historically been unavailable. When unhealthy food is the only option, kids face more health issues, including higher rates of childhood obesity.

We can redesign how we make, sell, and market food so that we support children's health. By requiring lower levels of sugar, salt, and fat in foods, and restricting advertising unhealthy foods towards children, we can redesign our food systems so that kids in all communities have access to better health.

Food Systems + Role of Corporations

Corporations design our food systems—the way we make, sell, and market food—to make a profit. Unhealthy food is cheaper to produce, and it is often advertised towards children. This advertising influences kids' food attitudes and preferences and steers them away from healthy food. All of this means that big food companies have designed our food systems to make money at the expense of children's health.

Since unhealthy food is cheaper to produce and sell, food corporations can sell more of it to make a higher profit. And food companies aren't motivated to sell fresh foods because they are more expensive and don't have a long shelf life. This means that unhealthy food is more widely available, and is the only option available in many communities. This is particularly true for neighborhoods of color, where healthy, affordable foods have historically been unavailable. When unhealthy food is the only option, kids face more health issues, including higher rates of childhood obesity.

We can redesign how food corporations make, sell, and market food to support children's health. By requiring food companies to lower levels of sugar, salt, and fat in their foods, and restricting advertising unhealthy foods towards children, we can redesign our food systems so that kids in all communities have access to better health.

Places as Designed

Our communities are designed to cater to the wealthy and leave poorer areas without needed resources. This means that kids and families are left without things like community parks, sidewalks and bike paths, and supermarkets, and it takes a toll on community health.

The way we design our communities means that access to healthy food and green spaces is limited by where you live and how much money you have. This means that many communities don't have access to the necessary resources for good health. This is particularly true for neighborhoods of color, where these resources have historically been unavailable. When kids don't have good places to be physically active, and when they don't have access to healthy food, they face more health issues including higher rates of childhood obesity.

We can redesign our communities to support children's health. By encouraging development in historically underfunded neighborhoods and creating requirements for parks and green spaces in all neighborhoods, we can redesign our communities so that kids have access to better health.

Places as Designed + Role of Policymakers and Developers

Developers benefit from zoning laws that encourage the building and growth in areas that will make the most money, catering to the wealthy and leaving poorer areas without needed resources. This means that kids and families are left without things like community parks, sidewalks and bike paths, and supermarkets, and it takes a toll on community health.

Because developers are so focused on making money, access to healthy food and places for physical activity is limited by where you live and how much money you have. This means that many communities don't have access to the necessary resources for good health. This is particularly true for neighborhoods of color, where these resources have historically been unavailable. When kids don't have good places to be physically active, and when they don't have access to healthy food, they face more health issues including higher rates of childhood obesity.

We can redesign how community investments are made so they better support children's health. By encouraging development in historically underfunded neighborhoods and creating requirements for parks and green spaces in all neighborhoods, we can redesign our communities so that kids have access to better health.

WAVE 2

Explanatory Chains

Explanatory Chain—Stigma

Children living with obesity often face negative beliefs and unfair treatment from others because of their weight. This stigma causes major stress, harming kids' health and development. Kids who are bullied for their weight have higher rates of anxiety, depression, and loneliness than kids who aren't. And weight-based stigma can contribute to health issues like higher blood pressure, headaches, or difficulty sleeping.

When kids are treated differently because of their weight, it increases stress and harms their overall wellbeing. To make sure that all kids—no matter their weight—can be healthy and develop well, we must limit weight stigma towards kids at every level. We can do this in part by implementing policies that restrict advertisements for diet pills and supplements towards kids, encourage a more diverse range of body sizes in advertisements and media, and formally ban weight-based bullying in schools and medical settings.

Explaining the Cycle of Disrupted Development—Stigma

Children living with obesity often face negative beliefs and unfair treatment from others because of their weight. This stigma causes major stress for kids, leading to a cycle of disrupted health and development. Kids who are bullied for their weight have higher rates of anxiety, depression, and loneliness than kids who aren't. And weight-based stigma can contribute to

health issues like higher blood pressure, headaches, or difficulty sleeping. The stress caused by weight-based bullying worsens kids' mental and physical health and can worsen obesity. This leads to even more stigma, creating a vicious cycle that hurts kids.

When kids are treated differently because of their weight, it increases stress, harms their wellbeing, and contributes to a cycle of disrupted development that hurts kids' health. To make sure that all kids—no matter their weight—can develop well, we must break the cycle of disrupted health at every level. We can do this in part by implementing policies that restrict advertisements for diet pills and supplements towards kids, encourage a more diverse range of body sizes in advertisements and media, and formally ban weight-based bullying in schools and medical settings.

Racialized Narratives about Obesity

Historical Assertion + Food Systems Are Designed (Food Apartheid)

Our food systems—the way we make, sell, and market food—were designed to benefit wealthy neighborhoods with mostly white families. For decades, our food systems have benefited mostly white communities, providing easy access to things like grocery stores and a wide range of healthy food options. But the focus on mostly white neighborhoods meant that neighborhoods with mostly Black families were denied the resources they needed for good health.

Even today, mostly white neighborhoods have more grocery stores than neighborhoods with mostly Black families, regardless of income. And food companies disproportionately aim ads for unhealthy foods towards Black and Latino children, which means they are profiting at the expense of kids' health.

The design of our food systems has led to higher rates of child obesity and related diseases in many communities of color. If we come together to redesign the laws and policies that have historically governed our food systems, we can create a better world where all children, no matter the color of their skin, have what they need for good health.

Historical Example/Food Systems Are Designed + How It Contributes to Stigma

Our food systems—the way we make, sell, and market food—were designed to benefit neighborhoods with mostly white families. For decades, our food systems have benefited mostly white communities, providing easy access to things like grocery stores and a wide range of healthy food options. But the focus on mostly white neighborhoods meant that neighborhoods with mostly Black families were denied the resources they needed for good health.

Even today, mostly white neighborhoods have more grocery stores than neighborhoods with mostly Black families, regardless of income. And food companies disproportionately aim ads for unhealthy foods towards Black and Latino children, which means they are profiting at the expense of kids' health.

This racism in our food systems has directly contributed to higher rates of child obesity and related diseases in communities of color. But instead of acknowledging our problematic laws and policies, too many people believe that “bad food choices” cause child obesity. And too often, the media depicts thin white people as “healthy” and larger people of color as “unhealthy.” All of this contributes to untrue and harmful stereotypes about children’s health.

Food System Is Rigged

Our food systems—the way we make, sell, and market food—are rigged to benefit mostly white neighborhoods at the expense of communities of color. For decades, our food systems have benefited mostly white communities, providing easy access to things like grocery stores and a wide range of healthy food options. But the focus on mostly white neighborhoods meant that neighborhoods with mostly Black families were denied the resources they needed for good health.

Our food systems have been rigged so that neighborhoods with mostly Black families are denied access to grocery stores and healthy, affordable foods. At the same time, food companies disproportionately aim ads for unhealthy foods towards Black and Latino children, which means they profit at the expense of kids' health. Food companies then use these profits to buy influence in our government and lobby against policies that would require our food systems to change for the better.

Our food systems are rigged, and it has led to higher rates of child obesity and related diseases in many communities of color. If we work together, we can unrig our food systems so that all children, no matter the color of their skin, have what they need for good health.

Food System Is Rigged + How It Contributes to Stigma

Our food systems—the way we make, sell, and market food—are rigged to benefit mostly white neighborhoods at the expense of communities of color. For decades, our food systems have benefited mostly white communities, providing easy access to things like grocery stores and a wide range of healthy food options. But the focus on mostly white neighborhoods meant that neighborhoods with mostly Black families were denied the resources they needed for good health.

Our food systems have been rigged so that neighborhoods with mostly Black families are denied access to grocery stores and healthy, affordable foods. At the same time, food companies disproportionately aim ads for unhealthy foods towards Black and Latino children, which means they profit at the expense of kids' health. Food companies then use these profits to buy influence in our government and lobby against policies that would require our food systems to change for the better.

The racism embedded in our food system has directly contributed to higher rates of child obesity and related diseases in communities of color. But instead of acknowledging our rigged food system, too many people believe that “bad food choices” cause child obesity. And too often, the media depicts thin white people as “healthy” and larger people of color as “unhealthy.” All of this contributes to untrue and harmful stereotypes about children’s health.

Our food system is rigged, and it harms children’s health. If we work together, we can unrig our food system so that all children, no matter the color of their skin, have what they need for good health.

Vision

Vision 1 (kid-specific, all bodies are celebrated and respected)

Imagine a world where all bodies—no matter their shape or size—are celebrated and respected. In this world, kids aren’t treated differently because of their weight, and all children have the support they need to grow and develop well. In this world, having a larger body doesn’t make kids more likely to be bullied. In this world, children’s body size doesn’t affect whether they get respectful physical and mental health services. And in this world we understand that kids’ health is separate from their body size. By working together now to ensure that all bodies are celebrated and respected, we can create a better world for our kids.

Vision 2 (general, all bodies are celebrated and respected)

Imagine a world where all bodies—no matter their shape or size—are celebrated and respected. In this world, nobody is treated differently because of their weight, and everyone has what they need to thrive in life. In this world, having a larger body doesn’t make people more likely to be bullied, or less likely to get hired for a job. In this world, body size doesn’t affect whether people get respectful physical and mental health services. And in this world we understand that all bodies are different and that people can be healthy at any size. By working together now to ensure that all bodies are celebrated and respected, we can create a better world for everyone.

Vision 3 (kid-specific, reducing stigma)

Imagine a world where kids living with obesity aren’t treated differently because of their weight. In this world, having a larger body doesn’t make kids more likely to get bullied, which means that kids of all shapes and sizes have strong and supportive relationships. In this world, kids’ body size doesn’t affect the quality of health care they receive, meaning that all kids get respectful medical care to help them grow and develop well. And in this world weight-based stigma and stereotypes are no longer barriers to kids’ health and wellbeing. By working together now to reduce stigma and bullying towards children in larger bodies, we can support kids’ health and create a better world for our children.

Vision 4 (kid-specific, access to resources)

Imagine a world where kids living with obesity have what they need to grow and develop well. In this world, every community has a grocery store that stocks healthy, affordable food, and all families have the resources to buy healthy food for their kids. In this world, every neighborhood has well-kept parks, paths, and green spaces where children can safely play outdoors with their friends. And in this world high-quality, respectful health care is available in all communities so that kids living with obesity have the support they need for healthy development. By working together now to increase access to the resources that children need to develop well, we can support kids' health and create a better world for our children.

Inequality across Places

As a society, we believe that all children should have access to opportunities for good health, no matter where they live. But right now, there is too much inequality in our society, causing too many children to have poor health and face issues like child obesity.

When inequalities are too high in a society, children are more likely to face health problems. This is especially true for neighborhoods of color, where opportunities for good health have historically been denied. If we want all children in our country to have good health, no matter where they live or the color of their skin, we need to address these inequalities. By making sure that all kids have access to safe and stable housing, green spaces, and affordable healthy food, we can address inequalities and help kids everywhere avoid health issues like child obesity.

To address inequalities that cause poor health, we need to prioritize policies that support all kids' health, no matter where they live or the color of their skin. By offering free, healthy school meals, making better housing more available, and investing in more public green spaces, we can reduce the inequalities that cause poor health and obesity in children.

Stories

Story 1—Community-Based Assets and Advocacy

The community of Franklin has high rates of childhood obesity. There are very few grocery stores, and they stock very little fresh, affordable food. There are very few parks or safe places for kids to gather and play, and there are too many ads for unhealthy food near the schools.

Residents in the community have begun to organize to demand change. They want grocery stores that stock affordable, nutritious food, more parks and green spaces for kids to play, and limits on the types of advertisements that are allowed near the schools. By working together, the residents of Franklin, local community organizations, and elected officials build understanding of the kinds of policies they need to support their kids' health.

Over time, the community creates positive change. Schools start providing free, healthy school meals for all kids, and the government creates incentives for healthy grocery stores to open

nearby. The city council secures funding to update parks and playgrounds, and there are plans to build a new community center to host social and sports events. Laws are passed that restrict the types of ads allowed near schools, and food assistance programs are expanded.

Because the residents of Franklin came together and demanded change, they were able to build a community that better supported kids' health and reduced rates of childhood obesity.

Story 2—Comparing Two Communities

The community of Franklin has high rates of childhood obesity. There are very few grocery stores, and they stock very little fresh, affordable food. There are very few parks or safe places for kids to gather and play, and there are too many ads for unhealthy food near the schools.

The neighboring community of Springfield, however, does not have high rates of childhood obesity. It has several grocery stores, all stocked with fresh, nutritious food. Food assistance programs are readily available to help families. Every neighborhood has a park and playground, and there aren't any advertisements for unhealthy foods within two miles of each school. The community center hosts many social and sports events, and all schools provide free healthy meals to all students.

All kids, no matter where they live, should have opportunities for good health. By supporting policies and programs like those in Springfield, we can prioritize kids' health and reduce rates of child obesity in all our communities.

FRAME-TESTING PEER-DISCOURSE SESSIONS

Explanatory Frames

Food Systems + Role of Corporations

Corporations design our food systems—the way we make, sell, and market food—to make a profit. Unhealthy food is cheaper to produce, and it is often advertised towards children. This means that big food companies have designed our food systems to make money at the expense of children's health. This is particularly true for neighborhoods of color, where healthy, affordable foods have historically been unavailable. When unhealthy food is the only option, kids face more health issues, including higher rates of childhood obesity. That's why we've banned food companies from advertising near our local schools. This is one way we can redesign our food systems so that kids in all communities have access to better health.

Food Systems Are Designed

Our food systems—the way we make, sell, and market food—were designed to benefit wealthy, mostly white neighborhoods, providing easy access to grocery stores and a wide range of healthy food options. But this focus has meant that neighborhoods with people on low incomes and neighborhoods of color have been denied the resources they needed for

good health. The design of our food systems has led to higher rates of child obesity and related diseases in many communities of color. That's why we've worked with the community to open a healthy grocery store downtown. This is one way we can redesign our food systems so that kids in all communities have access to better health.

Stories

Story 1: Neighboring Communities Have Different Approaches to Kids' Health

The community of Springfield has high rates of childhood obesity. There are few grocery stores and they don't stock fresh, affordable food. There aren't many parks or safe places for kids to gather and play, and there are too many ads for unhealthy food near the schools.

The neighboring community of Franklin, however, does not have high rates of childhood obesity. It has several healthy grocery stores. Food assistance programs are readily available to help families. Every neighborhood has a park and playground, and there aren't any advertisements for unhealthy foods within two miles of each school. The community center hosts many social and sports events, and all schools provide free healthy meals to all students.

All kids, no matter where they live, should have opportunities for good health. By supporting policies and programs like those in Franklin, we can prioritize kids' health and reduce rates of child obesity in all our communities.

Story 2: Local Community Comes Together to Improve Kids' Health

The community of Franklin used to have high rates of childhood obesity. There were few grocery stores and they didn't stock fresh, affordable food. There weren't many parks or safe places for kids to gather and play, and there were too many ads for unhealthy food near the schools.

Residents in the community have begun to organize to demand change. By working together, the residents of Franklin, local community organizations, and the city council, including a task force, started creating the kinds of policies they needed to support their kids' health.

Because of their work, schools have started providing free, healthy school meals for all kids, and the city council has created incentives for healthy grocery stores to open nearby. The city council is funding updates to parks and playgrounds, and is building a new community center to host social and sports events. They've also passed laws that restrict the types of ads allowed near schools, and have expanded food assistance programs.

Because the residents of Franklin came together and demanded change, they were able to build a community that better supports kids' health and can reduce rates of childhood obesity.

Appendix C: Sample Survey Items

Responsibility

Government Responsibility to Regulate Corporations

Please rate how much you agree or disagree with the statements below:

[7-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither disagree nor agree, 5 = somewhat agree, 6 = agree, 7 = strongly agree]:

1. It is our government's responsibility to regulate the way that companies produce and distribute food.
2. Our government has an obligation to make sure that food corporations are supporting children's health.
3. Our government is responsible for regulating how foods are marketed to children.
4. Our government is obligated to hold food companies accountable for harming children's health.

Parent Responsibility

Please rate how much you agree or disagree with the statements below:

[7-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither disagree nor agree, 5 = somewhat agree, 6 = agree, 7 = strongly agree]:

5. Parents and caregivers are fully responsible for ensuring that their kids are a healthy weight. (reverse coded)
6. It's entirely up to parents and caregivers to prevent child obesity. (reverse coded)
7. No matter what policies are in place, it is ultimately parents and caregivers who are responsible for their kids' weight. (reverse coded)

Collective Efficacy

Please rate how much you agree or disagree with the statements below:

[7-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither disagree nor agree, 5 = somewhat agree, 6 = agree, 7 = strongly agree]:

Collective Efficacy—weight stigma

1. I am confident that we, as a society, can end bullying of people who are overweight.
2. It is realistic to believe that we, as a society, can put an end to weight stigma.
3. We, as a society, can prevent unfair treatment based on someone's body size.

Collective Efficacy—reducing child obesity

4. I am optimistic that we, as a society, can reduce childhood obesity.
5. It is realistic to believe that we, as a society, can significantly reduce rates of child obesity.

Collective Efficacy—improving child health

6. I am confident that we, as a society, can make big improvements to children's physical health.
7. We, as a society, can take steps to drastically improve children's mental health.
8. It is realistic to believe that we, as a society, can significantly improve children's mental and physical health.
9. I am optimistic that our society can help kids be more physically and mentally healthy.

Health Individualism and Race

Please rate how much you agree or disagree with the statements below:

[7-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither disagree nor agree, 5 = somewhat agree, 6 = agree, 7 = strongly agree]:

1. The reason some racial or ethnic groups tend to be healthier than others is because some groups have cultures that value healthy behavior and others don't.
2. If some racial or ethnic groups have higher rates of poor health than others, it is because of differences in these groups' lifestyle choices.
3. The reason some racial groups tend to be less healthy is that they just don't prioritize their health.

Health Systems and Race

Please rate how much you agree or disagree with the statements below:

[7-point Likert scale: 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither disagree nor agree, 5 = somewhat agree, 6 = agree, 7 = strongly agree]:

1. The reason some racial or ethnic groups tend to be healthier than others is because some groups have the resources they need to be healthy and others don't.
2. The reason some racial or ethnic groups are healthier than others is that some people live in places that provide the resources to be healthy and others don't.
3. If there are higher rates of poor health in a particular racial or ethnic group, it's because society is set up in a way that exposes these groups to more risk.

Reducing Weight Stigma

Please rate to what extent you agree or disagree with the following statements:

[7-point Likert scale: 1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = neither disagree nor agree; 5 = somewhat agree; 6 = agree; 7 = strongly agree]

Reducing Weight Stigma—children

1. Obese children are lazy.
2. Fat children are a burden on society.
3. Kids wouldn't be obese/overweight if they just got outside and played more.
4. Overweight kids can't function as well as kids with a normal weight.
5. Fat kids are always unhealthy.
6. Obese children could lose weight if they really wanted to.
7. Overweight kids are not very smart.
8. Fat children wouldn't be bullied if they lost some weight.
9. Obese children could lose weight if they just ate less food.

Reducing Weight Stigma—parent blame

10. If a child is overweight, it's because their parents have failed.
11. If a child is obese, it's because their parents make poor choices.
12. If a child is fat, it's because their parents give them whatever they want.

Reducing Weight Stigma—mother blame¹⁰

13. It's a mother's job to keep her children from getting fat.
14. When a child is obese, the mother is usually to blame.
15. If a child is overweight, it's usually because their mom gives in too easily.

Understanding Children's Health and Harmful Effects of Obesity Stigma¹⁰

Please rate to what extent you agree or disagree with the following statements:

[7-point Likert scale: 1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = neither disagree nor agree; 5 = somewhat agree; 6 = agree; 7 = strongly agree]

Harmful Effects of Obesity Stigma

1. Stigma causes high amounts of stress for kids with obesity.
2. Weight stigma can contribute to health issues for kids with obesity.
3. Negative stereotypes harm the development of children with obesity.

Understanding Children's Health

4. You can't determine a child's health by how much they weigh.
5. Factors other than weight contribute to children's health and wellbeing.
6. A kid's health is more than just their weight.

Pathologizing Black Culture

Please rate to what extent you agree or disagree with the following statements:

[7-point Likert scale: 1 = strongly disagree; 2 = disagree; 3 = somewhat disagree; 4 = neither disagree nor agree; 5 = somewhat agree; 6 = agree; 7 = strongly agree]

1. Black inner city communities would do better if they took responsibility for their lives rather than relying on welfare.
2. The reason why poor urban communities are poor is because they don't value hard work.
3. If poor families want to do better, they should stop having children that they cannot afford.

¹⁰Subscale added in wave 2.

Policy Support

Please rate how much you support or oppose the following policies. In doing so, please consider that implementing some of these policies would require an increase in state or federal taxes:

[7-point Likert scale: 1 = strongly oppose; 2 = oppose; 3 = somewhat oppose; 4 = neither oppose nor support; 5 = somewhat support; 6 = support; 7 = strongly support]

Anti-Discrimination/Bullying

1. Create a federal law making it illegal to discriminate against a person based on their weight.
2. Cut federal funding for states that do not have laws against weight-based discrimination in employment, housing, and other public services.
3. Require all public school districts to adopt a code of conduct that prohibits weight-based bullying.
4. Require all doctors and nurses to complete a course on preventing weight-based stigma before they can be licensed.

Food Affordability/Accessibility

5. Raise taxes to increase funding for state supplemental nutrition and assistance programs (SNAP, often known as “food stamps”).
6. Make it easier for people to get food stamps.
7. Offer free, healthy school meals to all K-12 school children, regardless of their family’s income level.
8. Create a federal universal basic income program that pays all Americans \$1000 per month.

Corporate Responsibility

9. Require food companies that sell mostly unhealthy food to pay an additional 20% tax on all profits.
10. Create tax incentives for food manufacturers to reduce levels of fat, sugar, or salt in their products.
11. Ban advertisements for junk food from schools and surrounding local areas.
12. Ban food manufacturers from advertising unhealthy foods online.

Community Design

13. Create funding programs that help residents of historically Black neighborhoods renovate parks and green spaces in their communities.
14. Prioritize state and local funding for improvements to public transportation in historically underfunded communities.
15. Create a federal grants program for underfunded neighborhoods to design and build new community spaces.

Additional Demographics

AD1 Have you ever experienced weight stigma or anti-fat bias?

1. Yes
2. No
3. Prefer not to answer

AD1a [Only ask if AD1 = yes] Did you experience weight stigma or anti-fat bias as a child?

- a. Yes
- b. No
- c. Prefer not to answer

AD1b [only ask if AD1 = yes] Have you ever experienced weight stigma or anti-fat bias in a medical setting?

- a. Yes
- b. No
- c. Prefer not to answer

AD1c [Only ask if AD1 = yes] Have you ever experienced weight stigma or anti-fat bias in a transportation setting, like on an airplane?

- a. Yes
- b. No
- c. Prefer not to answer

AD2 Have you ever experienced disordered eating?

1. Yes
2. No
3. Prefer not to answer

AD2a [Only ask if AD2 = yes] Did you experience disordered eating as a child?

- a. Yes
- b. No
- c. Prefer not to answer

AD3 Are you currently the parent or guardian of a child who is under 18 years of age?

- 1. Yes
- 2. No

AD4 Overall, were the questions in this survey upsetting to you?

- 1. Yes
- 2. No

Appendix D: Quantitative Data Supporting Recommendations

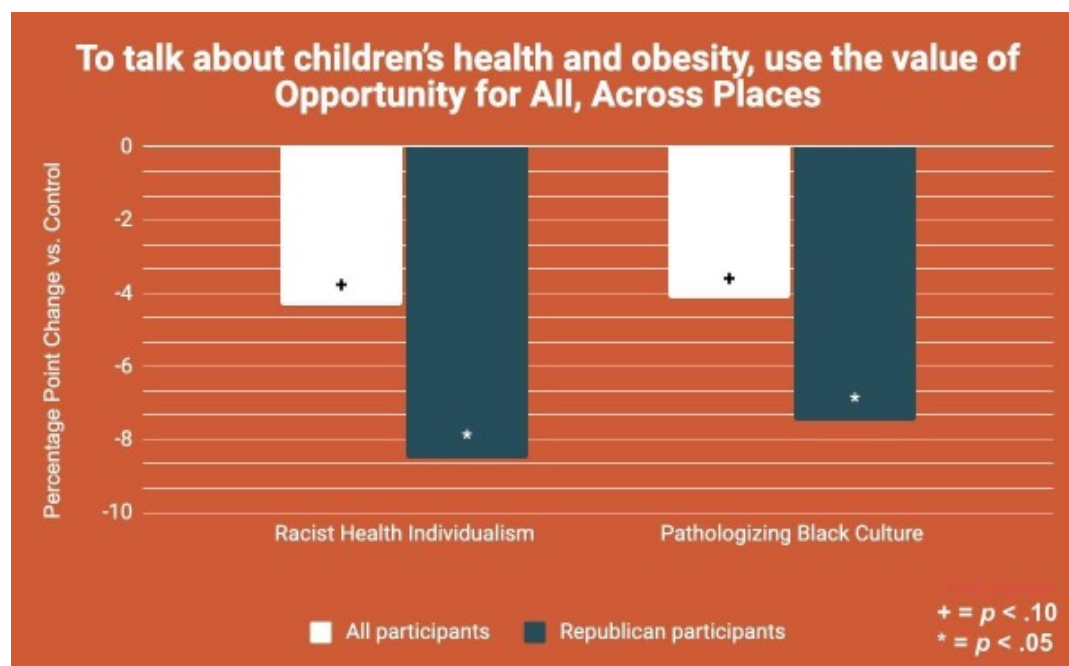
Core Theme 1: Ensuring Equitable Opportunities for Children’s Health Across Communities

RECOMMENDATION #1:

To talk about children’s health and obesity, use the value of Opportunity for All, across Places.

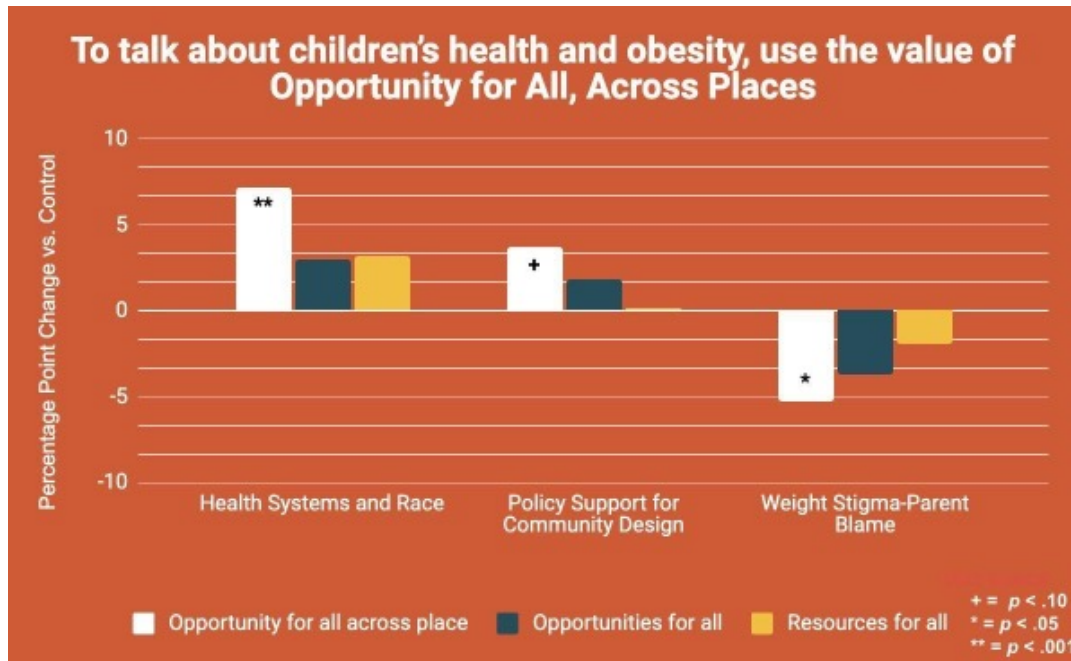
In the experiment, we found that “Opportunity for All, across Places” helps shift thinking among the American public in particularly useful ways. This value helps people to reduce racist thinking about why some people are healthier than others, shifting thinking away from the understanding that some cultures value health and others do not. In quantitative testing, this reduction in racist thinking was observed across all participants, and this was the only frame that was tested that specifically reduced racist thinking among participants who identified as Republicans.

Graph 1



Importantly, this value increased agreement with systemic understandings of health and race, helping members of the public see that some groups of people are healthier than others because they have the resources they need and others don't. It also shifts the focus away from blaming parents for children's health and builds support for investing in systemic solutions like community design. Quantitative testing showed that incorporating a sense of place alongside the idea of opportunities for all is more effective than focusing solely on the values of opportunity or resources for all.

Graph 2



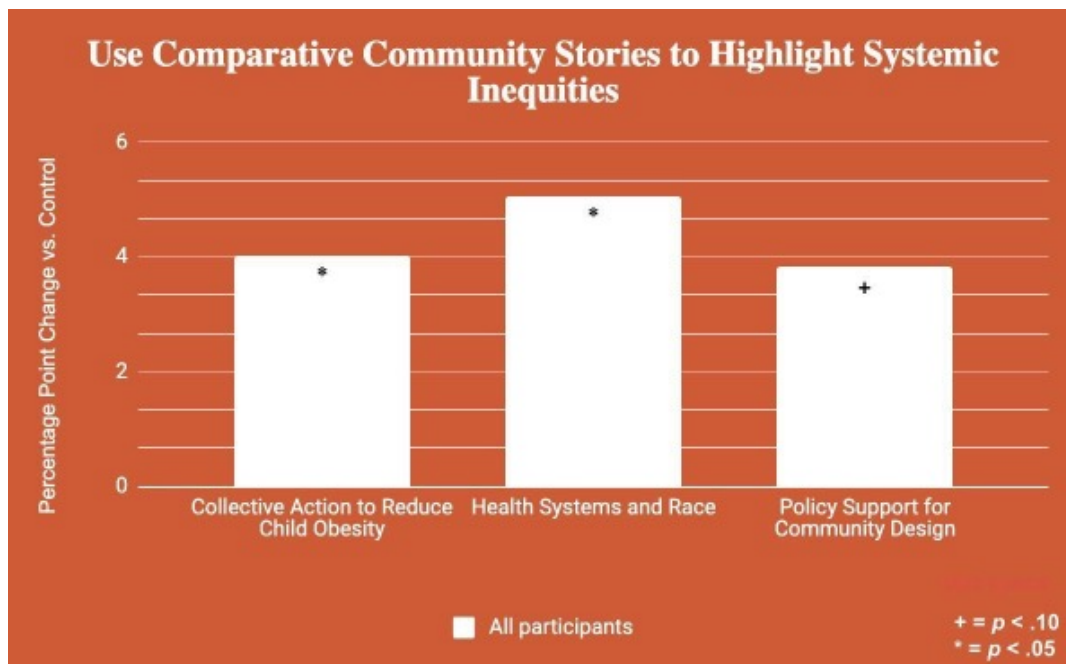
RECOMMENDATION #2:

Use comparative community stories to highlight systemic inequities.

Research shows that stories comparing two places are particularly effective in helping the public grasp the realities of systemic inequities. Drawing a clear contrast between two otherwise similar communities helped people grasp the reality of racial and income-related health inequalities and helped make it clear why some communities face greater challenges.

In the experiment, we tested a frame that drew a clear contrast between two communities, i.e., Comparative Community Story, and we found that this frame inspired a sense of urgency for collective action. People respond strongly to comparisons between communities because it encourages them to think critically about how policy choices create environments that either support or undermine children's health. When these contrasts are made clear, audiences are more likely to support solutions that address systemic barriers rather than focusing solely on solutions that involve individuals changing their behavior.

Graph 3



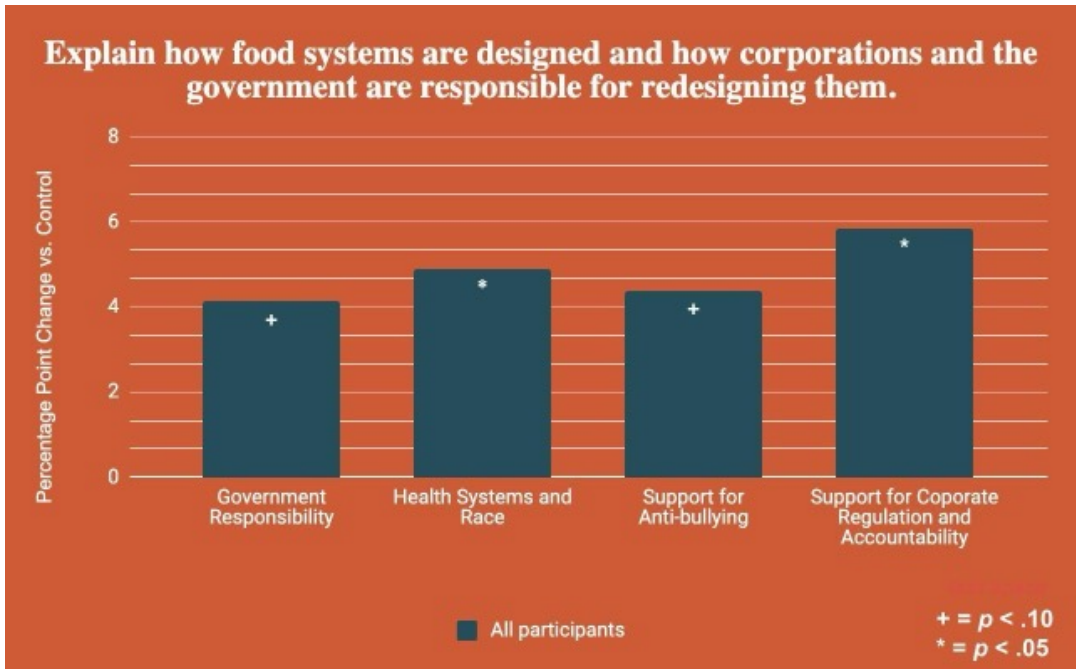
Core Theme 2: Holding Corporations and Government Accountable for Shaping Food Systems

RECOMMENDATION #3:

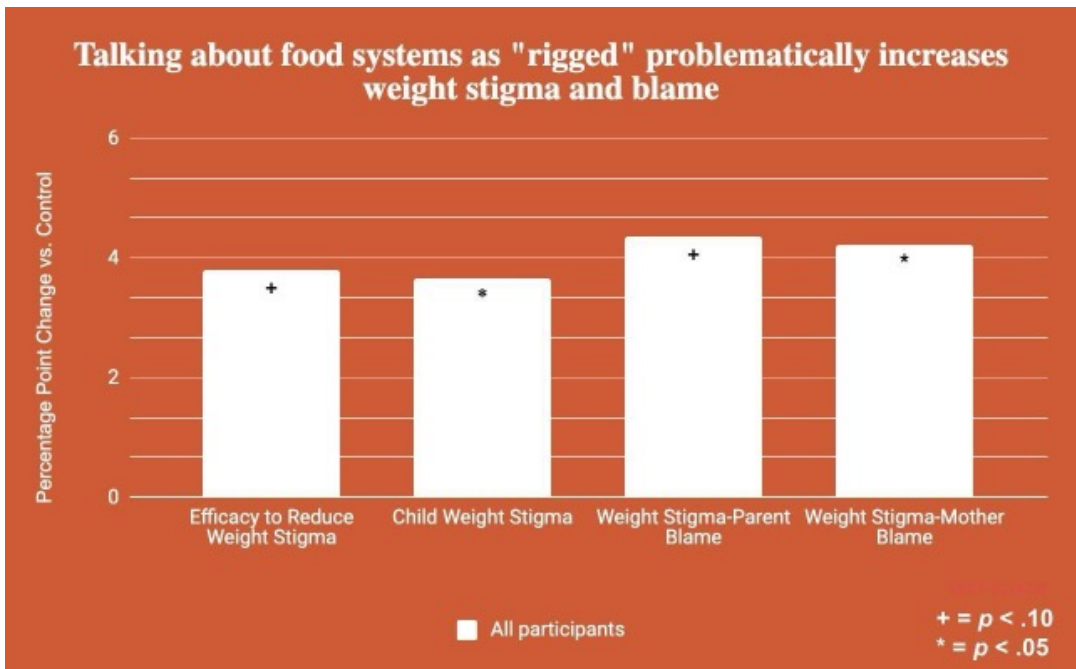
Explain how food systems are designed and how corporations and the government are responsible for redesigning them.

Quantitative and qualitative testing revealed that it is more effective to describe food systems as “designed,” “shaped,” or “influenced” as opposed to describing food systems as “rigged.” We tested this because we’ve found in other work on public thinking that “system is rigged” thinking is a common mindset people use to make sense of why systems do not work. In this research, emphasizing the intentionality with which our food systems are designed shifted public thinking, whereas talking about food systems as rigged often moved thinking in unhelpful ways. Problematically, talking about food systems as “rigged” led to increased weight stigma toward children, with blame directed at parents, particularly mothers, for childhood obesity. Labeling food systems as “rigged” might be evoking a sense of fatalism, making people feel that nothing can be done and causing them to disengage from the issue. Additionally, when we say the system is “rigged” without specifying who is responsible, it may be leading people to default to blaming parents or the children themselves for their choices, perpetuating stigma and misunderstanding.

Graph 4



Graph 5



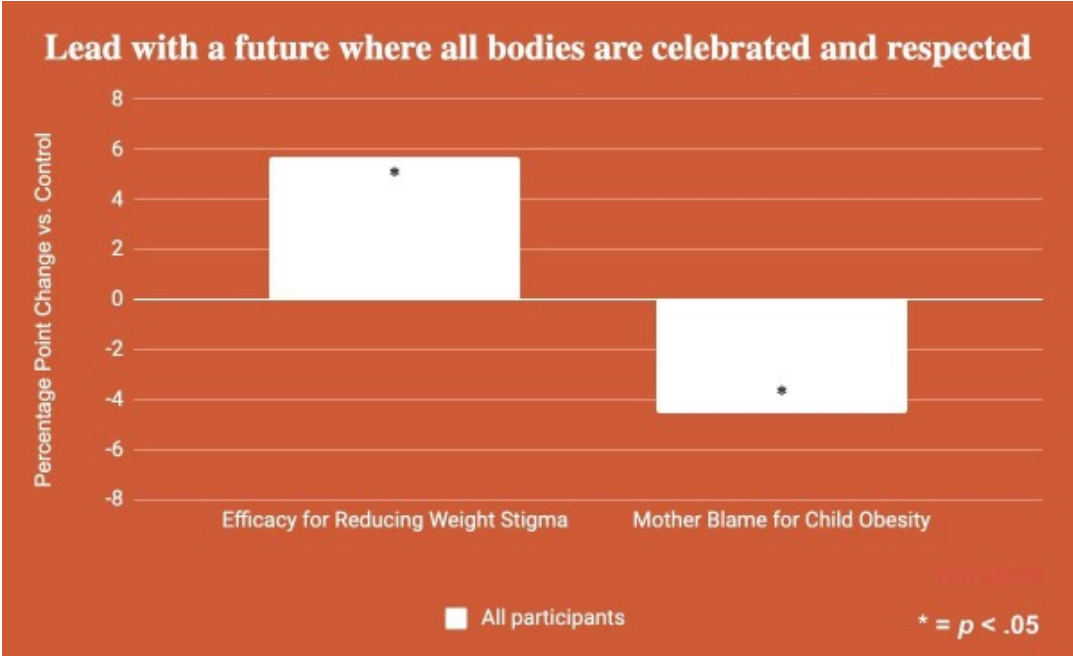
Core Theme 3: Celebrating All Bodies

RECOMMENDATION #4:

Lead with a future where all bodies are celebrated and respected.

Quantitative testing showed that this vision frame boosted public confidence in our collective ability to improve child health and address obesity-related issues, like diabetes and heart disease, through systemic change. It also strengthened belief in our power as a society to work together to combat the weight stigma children face. Crucially, testing showed that this approach shifts the focus away from blaming mothers for child health, opening the door for advocates to highlight the role of systems, environments, and policies. For participants with lived experience of weight stigma, this vision frame was especially impactful, increasing their belief in our collective ability to reduce stigma, lower childhood obesity rates, and improve overall child health.

Graph 6



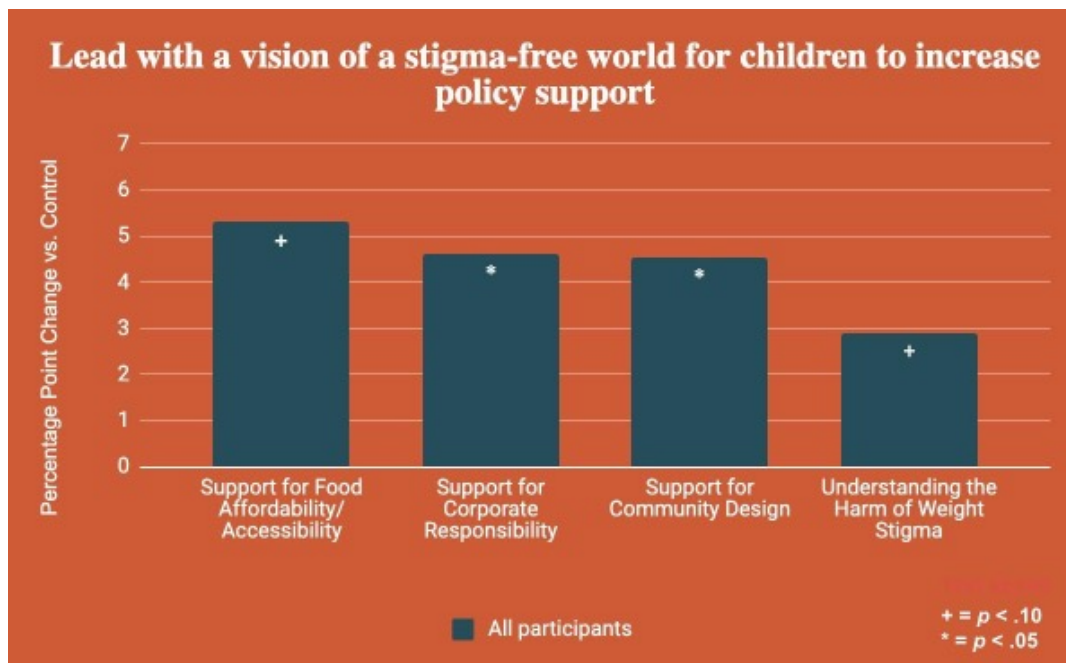
Core Theme 4: Addressing Weight Stigma Directly

RECOMMENDATION 5:

Point to a stigma-free future for kids.

In quantitative testing, a vision frame that focused on a stigma-free world for children increased people's sense that working together to improve child health, address weight stigma, and reduce obesity through systemic change was possible. This stigma-free world vision also increased support for a broad range of child health policies, including food accessibility, corporate accountability and regulation, and investments in community design.

Graph 7

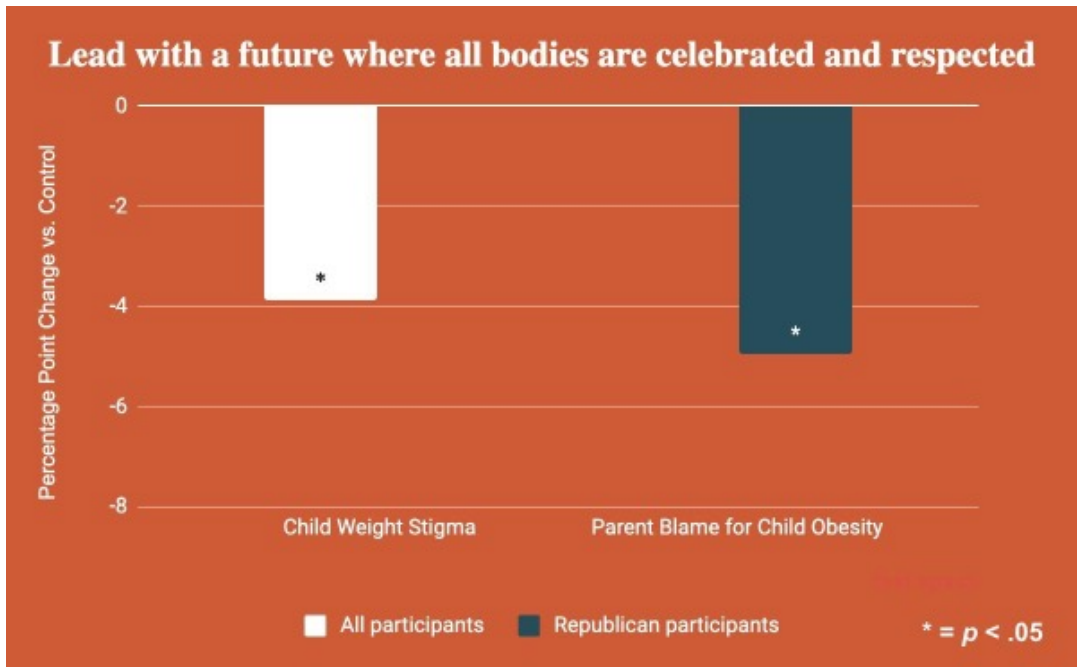


RECOMMENDATION 6:

Explain how stigma can lead to health and development problems for kids.

Our research shows that this approach not only broadens understanding of child health to include mental wellness but also fosters a sense of collective efficacy in tackling weight stigma. Moreover, in quantitative testing, this type of explanation reduced weight stigma among all research participants and lessened the blame placed on parents for their children's health among Republicans.

Graph 8



About FrameWorks

The FrameWorks Institute is a nonprofit think tank that advances the mission-driven sector's capacity to frame the public discourse about social and scientific issues. The organization's signature approach, Strategic Frame Analysis[®], offers empirical guidance on what to say, how to say it, and what to leave unsaid. FrameWorks designs, conducts, and publishes multi-method, multidisciplinary framing research to prepare experts and advocates to expand their constituencies, to build public will, and to further public understanding. To make sure this research drives social change, FrameWorks supports partners in reframing, through strategic consultation, campaign design, FrameChecks, toolkits, online courses, and in-depth learning engagements known as FrameLabs. In 2015, FrameWorks was named one of nine organizations worldwide to receive the MacArthur Award for Creative and Effective Institutions.

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Shifting the Narrative about Child Obesity

Methods Supplement

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