

# An Action Kit for Prevention: Prioritizing Cost-Effective and Equitable Healthy Eating and Physical Activity Strategies

CHOICES Community of Practice  
Coffee Chat



November 16, 2023


*Welcome!*

*Please share your name, title, & organization in the chat.*

# Disclaimer & Funding

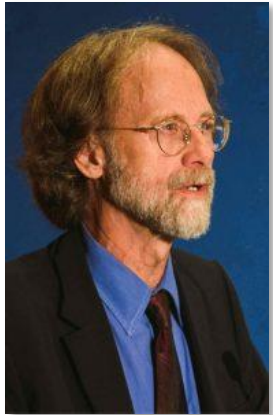
- The CHOICES Project engages in research and education. The information presented in this discussion today is for educational purposes only and does not necessarily represent the position of any CHOICES Project funders.
- This event is intended to provide information, tools, and resources to inform and educate the audience, and is not an attempt to influence any specific legislation.

*This work is supported by The JPB Foundation and the Centers for Disease Control and Prevention (U48DP006376). The findings and conclusions are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention or other funders.*

The background features a collage of images. On the left, there's a vertical strip with a green arrow pointing upwards and faint text including 'question', 'policy', 'member', 'statement', and 'government'. On the right, there's a photo of four people in a meeting. At the bottom, there's a photo of five diverse children sitting at a table with fruit.

**The CHOICES Community of Practice includes people whose work focuses on advancing obesity prevention, healthy eating, and active living and want to learn more about how cost-effectiveness analysis can advance their efforts and address health equity.**

# An Action Kit for Prevention: Prioritizing Cost-Effective and Equitable Healthy Eating and Physical Activity Strategies



## Steve Gortmaker, PhD

Professor of the Practice of Health Sociology  
Director, Prevention Research Center on Nutrition and Physical Activity  
Department of Social and Behavioral Sciences  
Harvard T.H. Chan School of Public Health

# What is CHOICES Doing?



Policies and programs improving nutrition and physical activity environments



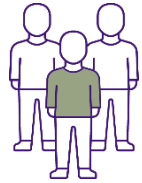
Best results for dollars invested



We want to improve population health and health equity

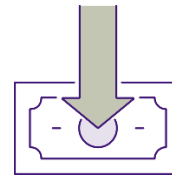
# CHOICES Outcome Metrics

- CHOICES generates a variety of metrics to describe the reach, health impact, cost, and impact on health equity of intervention strategies.



## Reach

*Number of people who directly benefit*



## Cost-effectiveness ratios

*Healthcare costs saved per \$1 invested  
Cost per QALY gained*



## Effect

*Change in behavior (e.g., increase in PA minutes)  
Number of QALYS gained or obesity cases prevented*



## Health Equity Impact

*Impact on obesity-related health equity*



## Cost

*Cost per person  
Cost by payer*

# Four Key Settings

School

Early Care and  
Education &  
Out-of-School  
Time

Communities &  
Government

Clinical

# What Has CHOICES Found?

- Strategies across sectors improve population health
- Some strategies are cost-saving
- Include adults for shorter-term health care cost savings
- Many strategies reaching only children require investment
- Some strategies are projected to both improve overall population health and improve health equity



# **CHOICES National Action**

## **Kit 2.0**

# CHOICES National Action Kit 2.0

- Relaunch of the tool, originally released in 2019
- Projections on the national population reach, health impact, and cost-effectiveness of strategies to improve child health across four settings
- New detailed cost information and data on the impacts on health equity

## CHOICES NATIONAL ACTION KIT 2.0

The CHOICES team has projected the national population reach, impact on health, implementation costs, health care cost savings, and health equity (where relevant data are available) for effective policies and programs that can be used in schools, early care and education and out-of-school settings, communities, and clinics. The kit allows you to compare up to four strategies at a time to help inform your organization's decision-making around promoting healthy weights. [Explore our user guide for more information and contact us with any questions.](#)

Please select up to 4 strategies to compare.

BUILD COMPARISON

### SCHOOL

Active physical education	<input type="checkbox"/> SELECT
Active recess	<input type="checkbox"/> SELECT
Active school day	<input type="checkbox"/> SELECT
Movement breaks in the classroom	<input type="checkbox"/> SELECT
Promoting water consumption in schools	<input type="checkbox"/> STRATEGY REPORT <input type="checkbox"/> SELECT

### EARLY CARE AND EDUCATION & OUT-OF-SCHOOL TIME

Creating healthier early care and education environments	<input type="checkbox"/> SELECT
More movement in early care and education settings	<input type="checkbox"/> SELECT
Policy to reduce TV time in early care and education settings	<input type="checkbox"/> SELECT
Program in early care and education settings to reduce TV viewing	<input type="checkbox"/> SELECT
Creating healthier afterschool environments	<input type="checkbox"/> SELECT
New opportunities for healthy afterschool programs	<input type="checkbox"/> SELECT

### COMMUNITIES & GOVERNMENT

Counseling in WIC visits to reduce TV viewing	<input type="checkbox"/> STRATEGY REPORT <input type="checkbox"/> SELECT
Fast-food restaurant calorie labeling	<input type="checkbox"/> SELECT
Reducing exposure to unhealthy food and beverage advertising	<input type="checkbox"/> SELECT
Sugary drink excise tax	<input type="checkbox"/> STRATEGY REPORT <input type="checkbox"/> SELECT

### CLINICAL

Electronic decision support for pediatric medical providers	<input type="checkbox"/> SELECT
Home visits to reduce TV time	<input type="checkbox"/> SELECT

# Build a comparison of up to four strategies

## CHOICES NATIONAL ACTION KIT 2.0

The [CHOICES team](#) has projected the national population reach, impact on health, implementation costs, health care cost savings, and health equity (when relevant data are available) for effective policies and programs that can be used in schools, early care and education and out-of-school settings, communities, and clinics. The kit allows you to compare up to four strategies at a time to help inform your organization's decision-making around promoting healthy weight. *Explore our [user guide](#) for more information and [contact us](#) with any questions.*

Please select up to 4 strategies to compare.

BUILD COMPARISON

### SCHOOL

Active physical education

+ SELECT



Active recess

+ SELECT





# Comparison table

- Generates a variety of metrics to describe the reach, health impact, cost, and impact on equity of strategies →

NATIONAL RESULTS

■ SCHOOL
 ■ CLINICAL
 ■ EARLY CARE AND EDUCATION & OUT-OF-SCHOOL TIME
 ■ COMMUNITIES & GOVERNMENT

95% UNCERTAINTY INTERVALS
 [Methods](#)
[Glossary](#)

	Promoting water consumption in schools	Program in early care and education settings to reduce TV viewing	Counseling in WIC visits to reduce TV viewing	Home visits to reduce TV time
	 STRATEGY REPORT		 STRATEGY REPORT	
<b>BEHAVIORAL CHANGE PER PERSON</b> <i>Change in health behavior per person in the first year</i>	<b>44 more servings of water</b> <i>12-oz servings, per year</i>	<b>2,100 fewer minutes of television viewed</b> <i>Per year</i>	<b>1,470 fewer minutes of television viewed</b> <i>Per year</i>	<b>5,070 fewer minutes of television viewed</b> <i>Per year</i>
<b>COST PER PERSON</b> <i>Average annualized cost per person to implement the strategy over the model period</i>	<b>\$2.18</b> <i>See Cost Results</i>	<b>\$3.31</b> <i>Cost Results coming soon!</i>	<b>\$0.02</b> <i>See Cost Results</i>	<b>\$78.60</b> <i>Cost Results coming soon!</i>
<b>POPULATION REACH</b> <i>Reach over the model period</i>	<b>58,000,000</b>	<b>6,420,000</b>	<b>10,300,000</b>	<b>154,000</b>
<b>OBESITY PREVENTED</b> <i>Cases of obesity prevented in the final year</i>	<b>109,000</b>	<b>6,640</b>	<b>7,550</b>	<b>402</b>
<b>CHILD OBESITY PREVENTED</b> <i>Cases of child obesity prevented in the final year</i>	<b>92,800</b>	<b>6,640</b>	<b>7,550</b>	<b>402</b>
<b>HEALTH EQUITY IMPACT</b> <i>Impact on obesity-related health equity in the final year</i>	<b>Likely to improve health equity by race, ethnicity, &amp; income</b> <i>See Health Equity Indicators</i>	<b>Likely to improve health equity by race, ethnicity, &amp; income</b> <i>Health Equity Indicators coming soon!</i>	<b>Likely to improve health equity by race, ethnicity, &amp; income</b> <i>See Health Equity Indicators</i>	<b>Likely to improve health equity by race, ethnicity, &amp; income</b> <i>Health Equity Indicators coming soon!</i>
<b>QUALITY-ADJUSTED LIFE YEARS (QALYS) GAINED</b> <i>Quality-adjusted life years (QALYs) gained (totals over the model period)</i>	<b>33,800</b>	<b>2,080</b>	<b>2,130</b>	<b>106</b>

# Strategy Reports

Downloadable PDF for each strategy that includes:

- Strategy profile
- National results
- Cost results
- Health equity indicators
- Strategy details & modeling methods
- Modeled outcomes glossary
- References

## CHOICES NATIONAL ACTION KIT: Sugary Drink Excise Tax Strategy Report



*This strategy report describes the projected national population reach, impact on health and health equity, implementation costs, and health care cost savings for an effective strategy to improve child health. This information can help inform decision-making around promoting healthy weight. To explore and compare additional strategies, visit the CHOICES National Action Kit at [www.choicesproject.org/actionkit](http://www.choicesproject.org/actionkit).*



### TABLE OF CONTENTS

[Page 2](#) **Strategy Profile** | Describes the estimated benefits, activities, resources, and leadership needed to implement the strategy.

[Page 4](#) **National Results** | Displays the projected national population reach, impact on health, implementation costs, and health care cost savings of the strategy.

[Page 5](#) **Cost Results** | Describes the estimated costs by activity and payer needed to implement the strategy.

[Page 7](#) **Health Equity Indicators** | Describes the projected impact of implementing the strategy nationally on select health equity indicators related to excess weight.

[Page 9](#) **Strategy Details & Modeling Methods** | Describes the reach, effect, and cost assumptions used to make national projections for the strategy, and provides links to additional resources related to the strategy.

[Page 11](#) **CHOICES National Action Kit: Modeled Outcomes Glossary** | Provides definitions for each modeled output displayed in the National Results table.

[Page 12](#) **References**



# Application Use Cases



# How Can Cost-Effectiveness Analysis Inform Planning and Prioritization?

- Identify cost-effective & efficient implementation strategies
- Explain the impact on the population
- Provide evidence for action
- Guide resource investment
- Cultivate alliances & support
- Integrate health equity considerations



# Identify cost-effective & efficient strategies

- Compare **impact metrics** (e.g., “QALYs gained”, “Obesity Prevented”) to see which might have the biggest impact
- Compare “**Health Care Costs Saved per \$1 Invested**” to see which might be cost-saving.
- Compare “**Intervention Cost per Person**” to see which might be the least expensive to implement per person in your area



# Guiding resource investment

- Cost results
  - Outlines the activities and resources needed to implement
  - Assigns payers
- What is the likely implementation of the strategy?
- What activities and resources are needed to implement the strategy, and who will benefit?

Average Annual Strategy Implementation Cost by Activity and Payer*				
Activity	Resources	Cost per Person†	Payer	Percent of Total Cost
Purchase and install chilled water dispensers	<ul style="list-style-type: none"><li>• Staffing resources necessary for installing water dispensers</li><li>• Costs associated with purchasing water dispensers</li></ul>	\$0.35	School district	16%
Deliver training to school food service directors in cleaning and maintaining the chilled water dispensers	<ul style="list-style-type: none"><li>• Time to develop online training and materials</li><li>• Time for food service directors to access and attend online training</li></ul>	\$0.002	Federal government; School district	<1%
Maintain and clean water dispensers	<ul style="list-style-type: none"><li>• Time for food service staff to clean water dispensers</li><li>• Cost of water dispenser filter replacement</li><li>• Time for food service staff to replace filters</li></ul>	\$1.14	School	52%

See *Strategy Report: Cost Results* for more information

# Integrating health equity considerations

- Evaluate impact on health equity by race/ethnicity and/or income levels, if data available
- Who is this strategy expected to reach?
- What is the known effectiveness of the strategy?
- What variations do you see in social, demographic, and other weight-related risks?

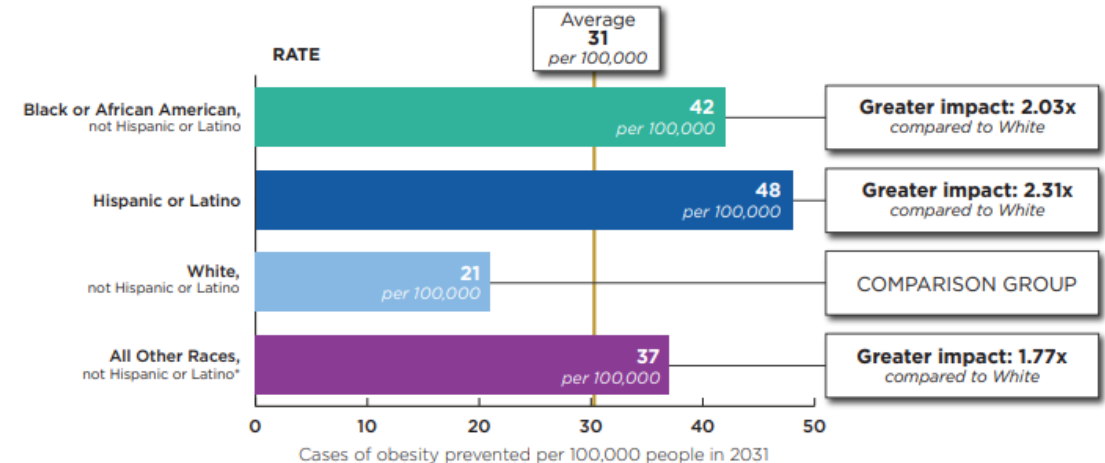
## KEY TAKEAWAYS

If implemented over 10 years (2022-2031), this strategy is projected to:

- ✓ Prevent 109,000 cases of obesity in 2031
- ✓ Prevent cases of obesity in all race, ethnicity, and income groups
- ✓ Improve health equity by race, ethnicity, and income

Learn more about CHOICES methods for projecting health equity impacts at [choicesproject.org/methods/healthequity](https://choicesproject.org/methods/healthequity)

## Comparative projected impact of the strategy by race and ethnicity

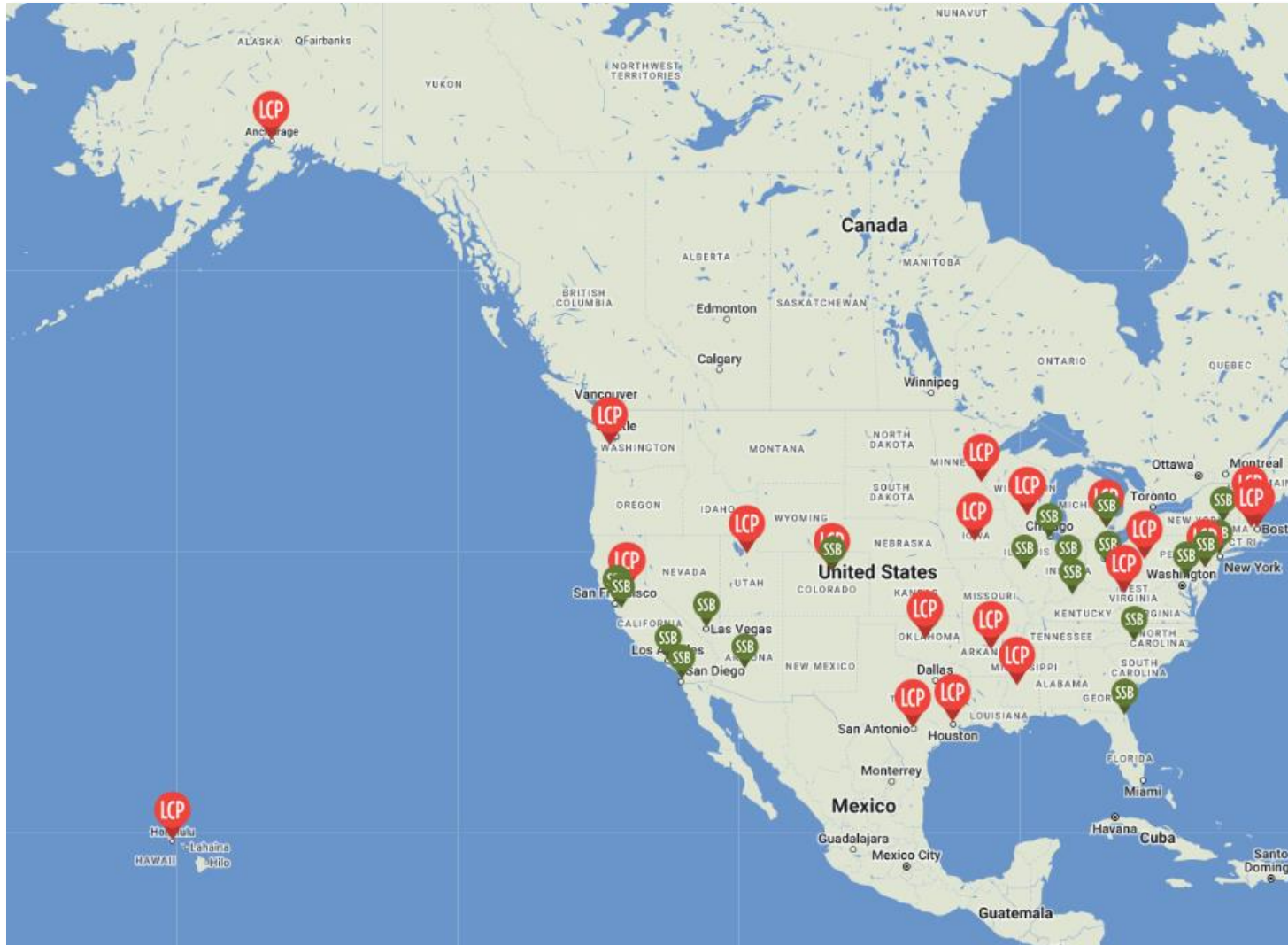


\*All Other Races includes people who identify as American Indian/Alaska Native, Asian, Native Hawaiian or Pacific Islander, Multi-racial, or another race or ethnicity not represented in the categories shown. While each of these groups represent distinct populations with differences in health opportunities, risk, and outcomes, they are summarized together due to limited data in national- and state-level surveillance systems.

See *Strategy Report: Equity Results* for more information

**Questions?**

# CHOICES Map of State & Local Efforts



# THANK

# YOU

Join our next coffee chat on  
Thursday, January 25<sup>th</sup> at 1:00pm ET



## CONTACT US

For more information contact  
[choicesproject@hsph.harvard.edu](mailto:choicesproject@hsph.harvard.edu)

Register to join at  
[choicesproject.org/comm-of-practice](https://choicesproject.org/comm-of-practice)