CHOICES

Childhood Obesity Intervention
Cost Effectiveness Study

CHOICES Project: Leveraging Opportunities to Address Winnable Battles

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June 21, 2016
Denver, Colorado

HARVARD T.H. CHAN
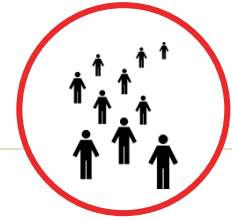**SCHOOL OF PUBLIC HEALTH**

CHOICES- Why are we doing this?

Childhood obesity prevention policies and programs
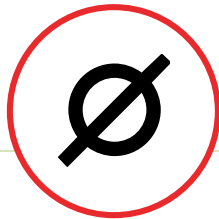
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Best results for dollars invested

→

Public policy, public health, general public

Cost Effectiveness Analysis

Cost Effectiveness Analysis
compares the costs and outcomes of:
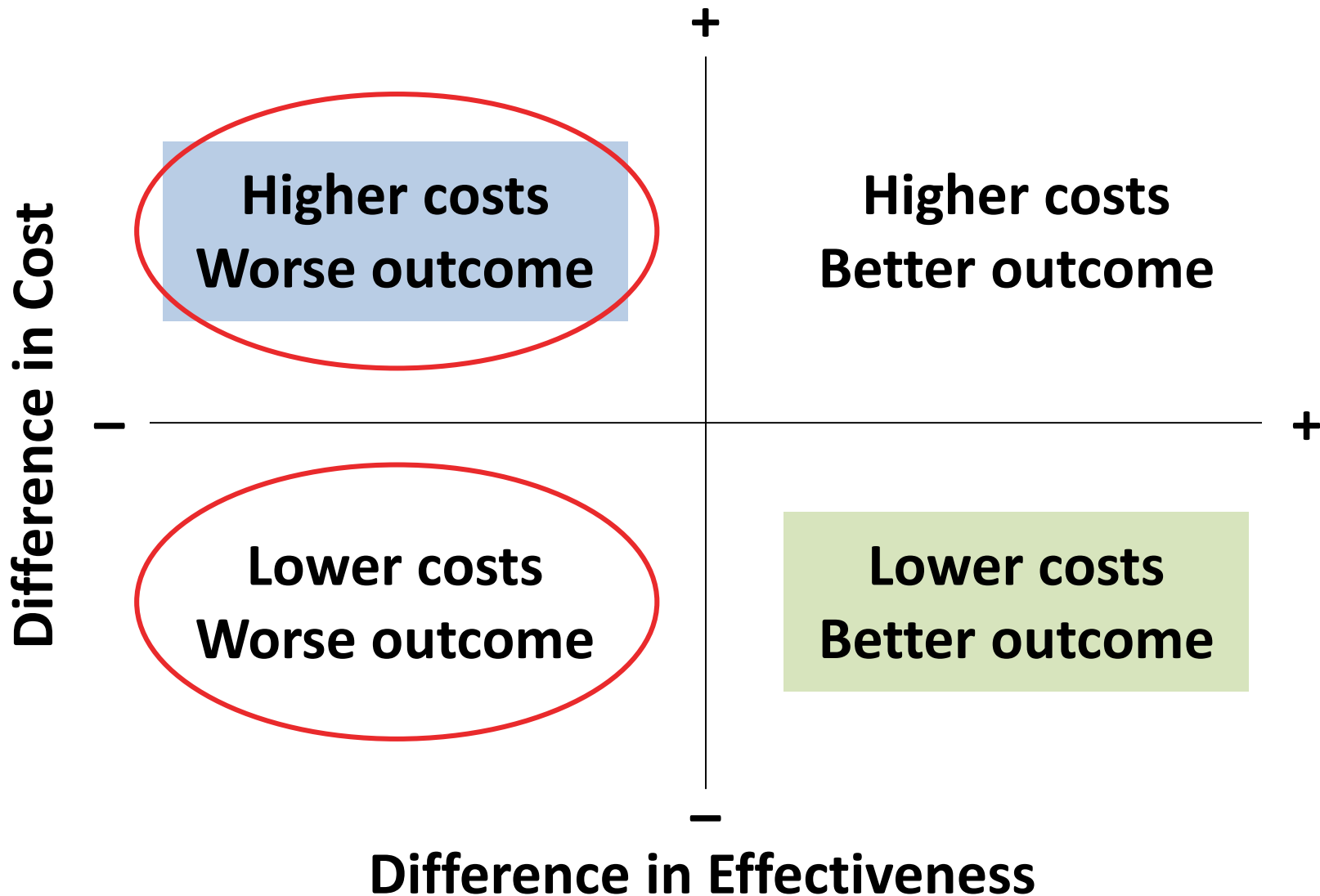
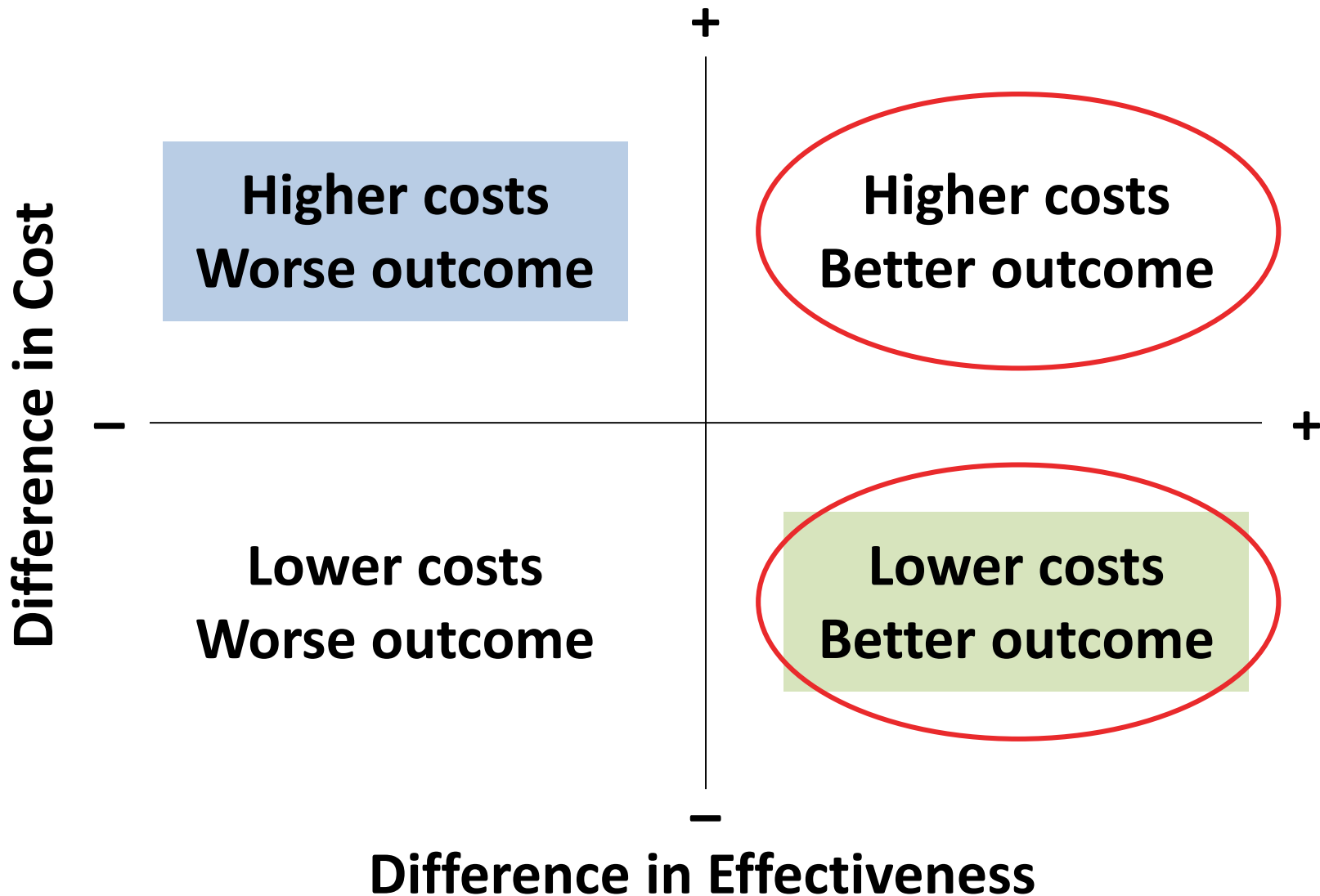One policy or program intervention with no intervention

OR

Two policy or program interventions

Costs & Outcomes

Difference in Cost

Difference in Effectiveness

$+$

$-$

$+$

$-$

Higher costs Worse outcome

Higher costs Better outcome

Lower costs Worse outcome

Lower costs Better outcome

Costs & Outcomes

Difference in Cost

+

**Higher costs
Worse outcome**

**Higher costs
Better outcome**

−   **+**

**Lower costs
Worse outcome**

**Lower costs
Better outcome**

−

Difference in Effectiveness

How Can CHOICES Methods/Results Help You?

✓ Provide evidence for action

✓ Explain impact on population

✓ Uncover effective implementation strategies

✓ Guide resource investment

✓ Cultivate alliances and support

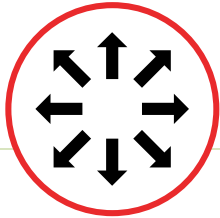**CHOICES partnership work in year 2**

States

Large cities

Large counties

Overview of CHOICES

CHOICES Model Outcomes

Reach

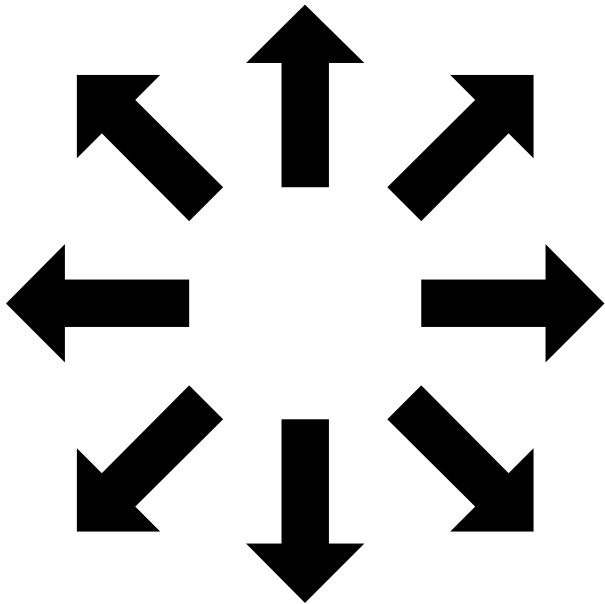Who will benefit?

Effect

How much will they benefit?

Cost

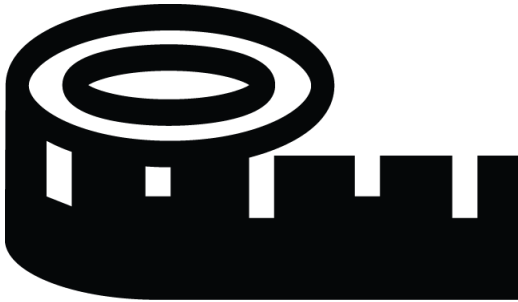How much will a program/policy change cost and will healthcare savings be more than implementation costs?

Focus on obesity-related initiatives

o Who?

o How many?

o Criteria to narrow description and number?
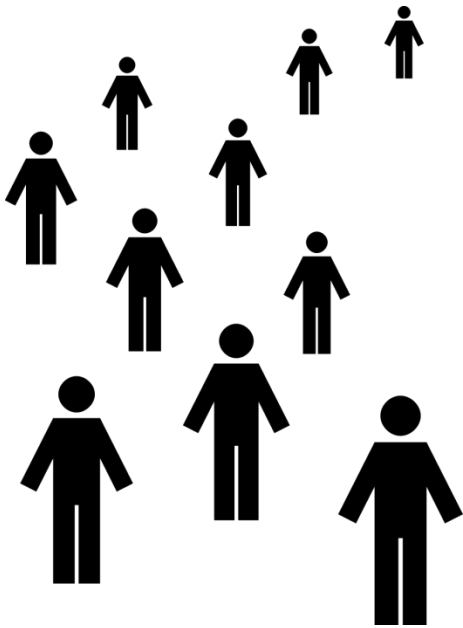
How much will they benefit?

- How much will the intervention reduce BMI?

- Peer-reviewed articles/evidence

Cost to make change?

$

- o Activities and resources to achieve effect

- o All costs regardless of payer

- o Value for all necessary resources

- o Not intervention participants' time
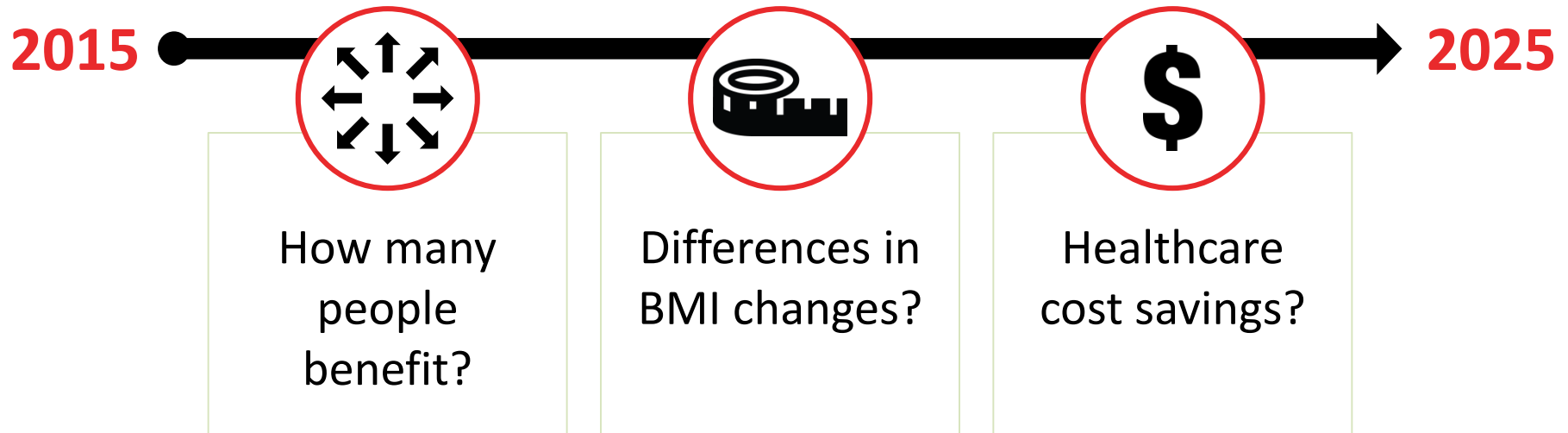
Population - CHOICES Model

Virtual population = 1 million people

o   Matches state population

o   Accounts for personal characteristics like dietary intake, body growth, and behaviors like smoking

Ten-Year Trends - CHOICES Model
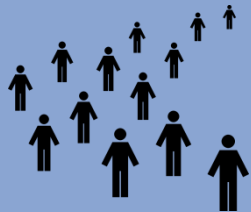
From 2015-2025, no intervention vs. intervention:

2015 ———————————————————————→ 2025

| How many people benefit? | Differences in BMI changes? | Healthcare cost savings? |

How the Model Works

Start: 2015

Simulate to: 2025

VIRTUAL POPULATION

From 2010 U.S. Census Data

POPULATION FACTORS

Population Growth

BMI Trends

INDIVIDUAL FACTORS

Body Growth

Personal Characteristics
(e.g. dietary intake)

Smoking

HEALTH STATUS
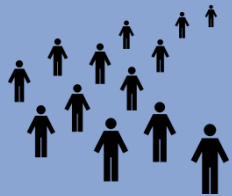
Obesity

OUTCOMES

Obesity

Healthcare Costs

Mortality

How the Model Works

Start: 2015

Simulate to: 2025

VIRTUAL POPULATION

From 2010 U.S. Census Data

POPULATION FACTORS

Population Growth

BMI Trends

INDIVIDUAL FACTORS

Body Growth

Personal Characteristics *(e.g. dietary intake)*

Smoking

INTERVENTION
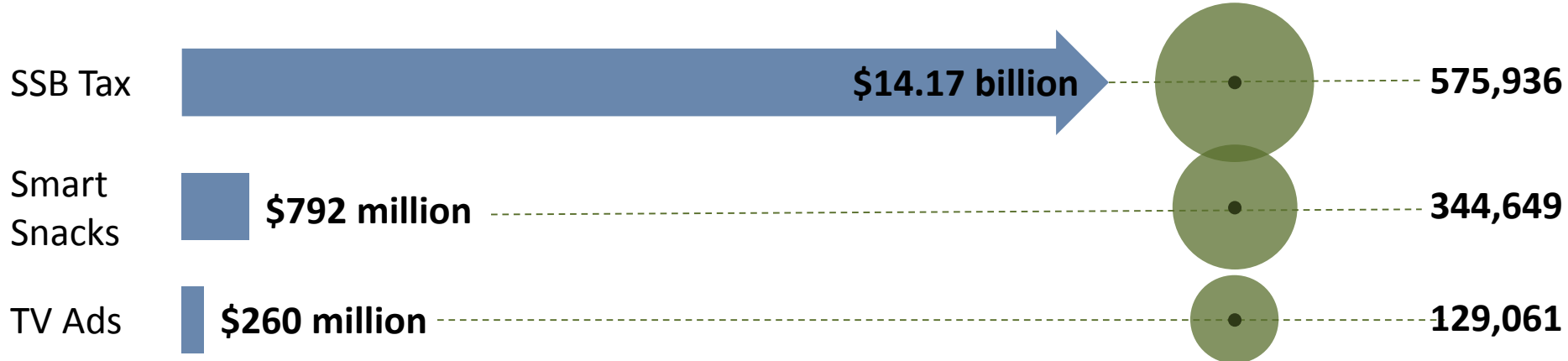Dietary Intake/Physical Activity

HEALTH STATUS
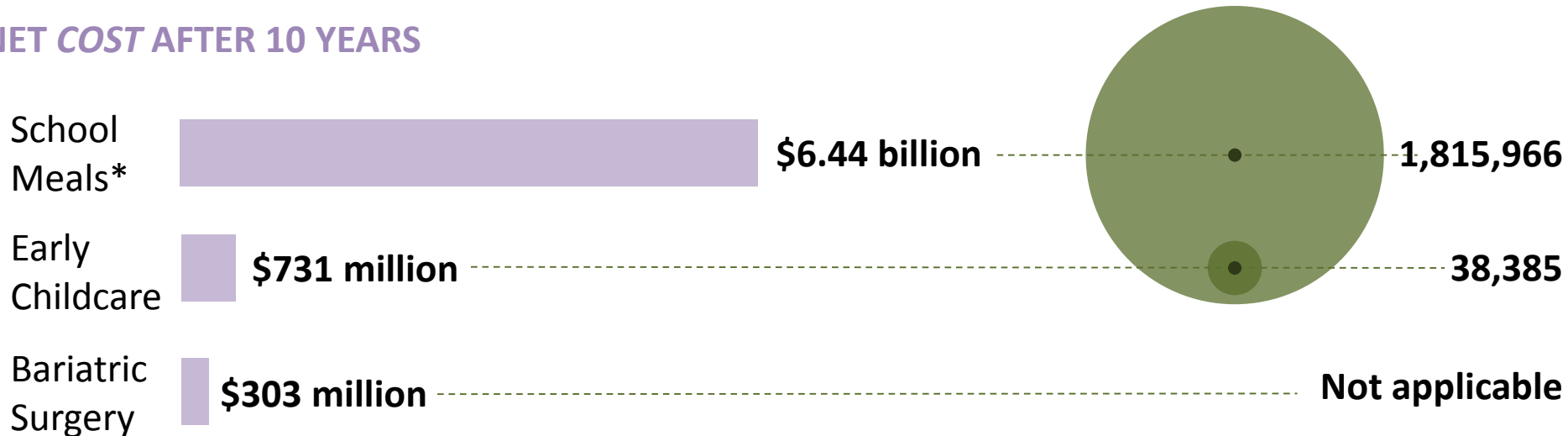
Obesity

OUTCOMES

Obesity

Healthcare Costs

Mortality

Interventions That Reduce Childhood Obesity

CASES OF CHILDHOOD OBESITY PREVENTED IN 2025

NET *COST SAVINGS* AFTER 10 YEARS

Intervention		
SSB Tax	$14.17 billion	575,936
Smart Snacks	$792 million	344,649
TV Ads	$260 million	129,061

NET *COST* AFTER 10 YEARS

Intervention		
School Meals*	$6.44 billion	1,815,966
Early Childcare	$731 million	38,385
Bariatric Surgery	$303 million	Not applicable

*The 95% uncertainty interval for the estimate includes zero (Gortmaker et al., *Health Affairs,* Nov. 2015.)

o ASTHO connects states and other partner organizations to work with CHOICES team

o ASTHO advised on framework and logistics for the state learning community partnership

CHOICES State Partnership

Partner w/ state health agencies to:

✓ Identify and assess 2-3 interventions

✓ Apply state-specific implementation scenarios
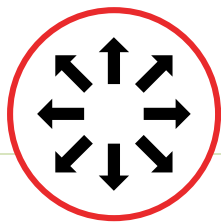
✓ Communicate results to inform decision making

State Models

Input state-specific data for cost-effective analysis

↓

State-specific intervention profiles
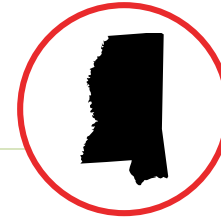
Who will benefit?

How much will they benefit?

How much does it cost to make a program change?

Washington

Example: Active Recess Program

Mississippi

Example: Early Care and Education Screen Time Policy and Programs

More Info on Year 2 Partnerships

Application process:

o Application materials on http://choicesproject.org/work-with-us/

o FAQ webinar July 14th 12 pm EST

o Proposals due Aug 5th

o Awardees notified Aug 31st

Project year: Oct 1, 2016 - Sept 30, 2017

Includes financial assistance to health agencies to complete work

For additional information:
www.choicesproject.org, cgiles@hsph.harvard.edu