

From Social Determinants to Interventions to Promote Health Equity: The Community Guide Health Equity Project

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Disclaimer

- The findings and conclusions in this presentation do not necessarily represent the official position of the Centers for Disease Control and Prevention.
- The Community Preventive Services Task Force's evidence-based recommendations are not mandates for compliance or spending. Instead, they provide information and options for decision makers and stakeholders to consider when determining which programs, services, and policies best meet the needs, preferences, available resources, and constraints of their constituents.
- The Centers for Disease Control and Prevention "provides administrative, research, and technical support for the Community Preventive Services Task Force."
- [PHS Act §399U[c]

Agenda

- Societal formation of race and ethnicity
- Social determinants of health
- The Community Guide
- Health equity interventions at the Community Guide
- Education as a social determinant
- First health equity education reviews at the Community Guide

The birth of race

“...race is the child of racism, not the father”

Coates, Between the World and Me, 2015

- In the age of exploration, many European progenitors of Western social thought believed themselves superior to other, “savage” populations they encountered.
- They divided the populations of the world into “races” based on crude, easily observable, phenotypic features.
- They ascribed behavioral and psychological features to races.
- They justified their imperial project and conquests in terms of the inferiority of the other races.

Omi and Winant 2015 (3rd Edition)

Saperstein et al. 2013

Social determinants of health

- We often think of disease and injury as the physiological consequences of environmental and biological agents. This is not untrue, but it is a limited view.
- Humans live in societies, and it is societal organization that determines how societal members interact with environmental and biological agents.
- Components of social organization include: education, housing, transportation, justice, labor, recreation, religion.
- These components are **SOCIAL DETERMINANTS OF HEALTH.**

The Creation of Health Equity and Inequity

Underlying Social Forces

Societal Distribution of Health Determinants

Social Determinants of Health

Health-related Equity Outcome

Political/ Economic Structure and Process

Forms of Inequitable Determinant Distribution

- Racism:
 - Institutional
 - Interpersonal
 - Internalized
- Sexism
- Classism
- Multiple forms of inequitable distribution based on age, disability, immigration status, etc.

Physical environment and its regulation

HABITAT: Neighborhood Living Conditions

Opportunities for Learning & Developing Capacity

Community Development & Employment Opportunities

Public finance, taxation

System of justice

Public services (e.g., transportation, sanitation, recreation, social services)

Health Promotion, Disease/ Injury Prevention/ Healthcare

Health Inequity/ Equity

Societal Divisions / Organization/ Structure-Hierarchy/ Process

The Guide to Community Preventive Services-- “The Community Guide”

- Systematic reviews
 - Evaluate and analyze all available evidence on the effectiveness of community-based programs, services, and policies in selected topics in public health
 - Assess the economic benefit of effective programs, services, policies
 - Highlight evidence gaps
- Evidence-based findings and recommendations
 - Developed by the Community Preventive Services Task Force (Task Force)
 - Help inform decision-making



Community Preventive Services Task Force

- A non-federal, independent panel
- Renowned experts in public health research, practice, and policy
- Appointed by CDC Director
- Serve without compensation for this work
- CDC provides scientific, technical, and administrative support for the Task Force



In General, a Conclusion on Effectiveness Requires:

A Body of Evidence

+

A Demonstration of Effectiveness

More than one study

Fewer if high quality

More if lower quality

Consistency of Effect

+

Sufficient Magnitude of Effect

“Most” studies demonstrate an effect favoring the intervention

The effect demonstrated across the body of evidence is “meaningful”

Health Equity and the Guide to Community Preventive Services

- Community Guide has conducted systematic reviews of public health interventions since the late 1990s.
- Community Guide Health Equity Reviews launched in 2009
- Complement to initiatives sponsored by WHO, Healthy People 2020, Robert Wood Johnson Foundation, and Cochrane/Campbell collaboratives

www.thecommunityguide.org

Health Equity Review Coordination Team

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Definitions and Goals

Equity in health is **widespread, achievable, equality in health AND in the major social determinants of health** among all **principal social divisions of a population**.

While equity in health is the ultimate objective of the Community Guide health equity reviews, the intermediate goal is the improvement of the health of economically-challenged and minority populations.

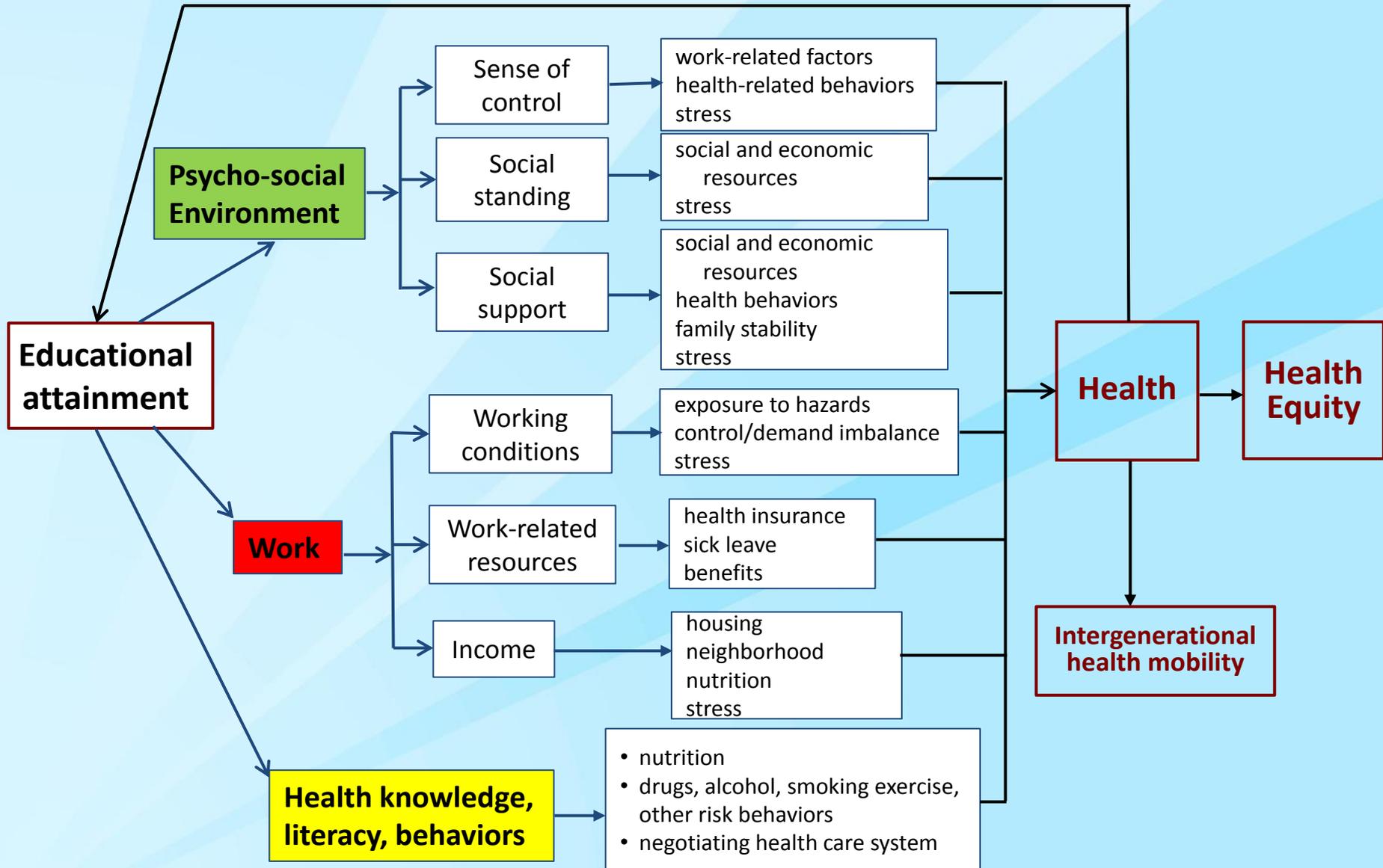
Health Equity Topic Prioritization

1. **Education**
2. Employment programs/policies, labor laws
3. Urban planning, neighborhood renewal, desegregation, housing subsidies
4. Social safety net
5. Tax policy, minimum wage, living wage
6. Intersectoral programs
7. Conditional cash transfers
8. Early childhood home visitation
9. Food programs and policies

Interests in Education in Public Health

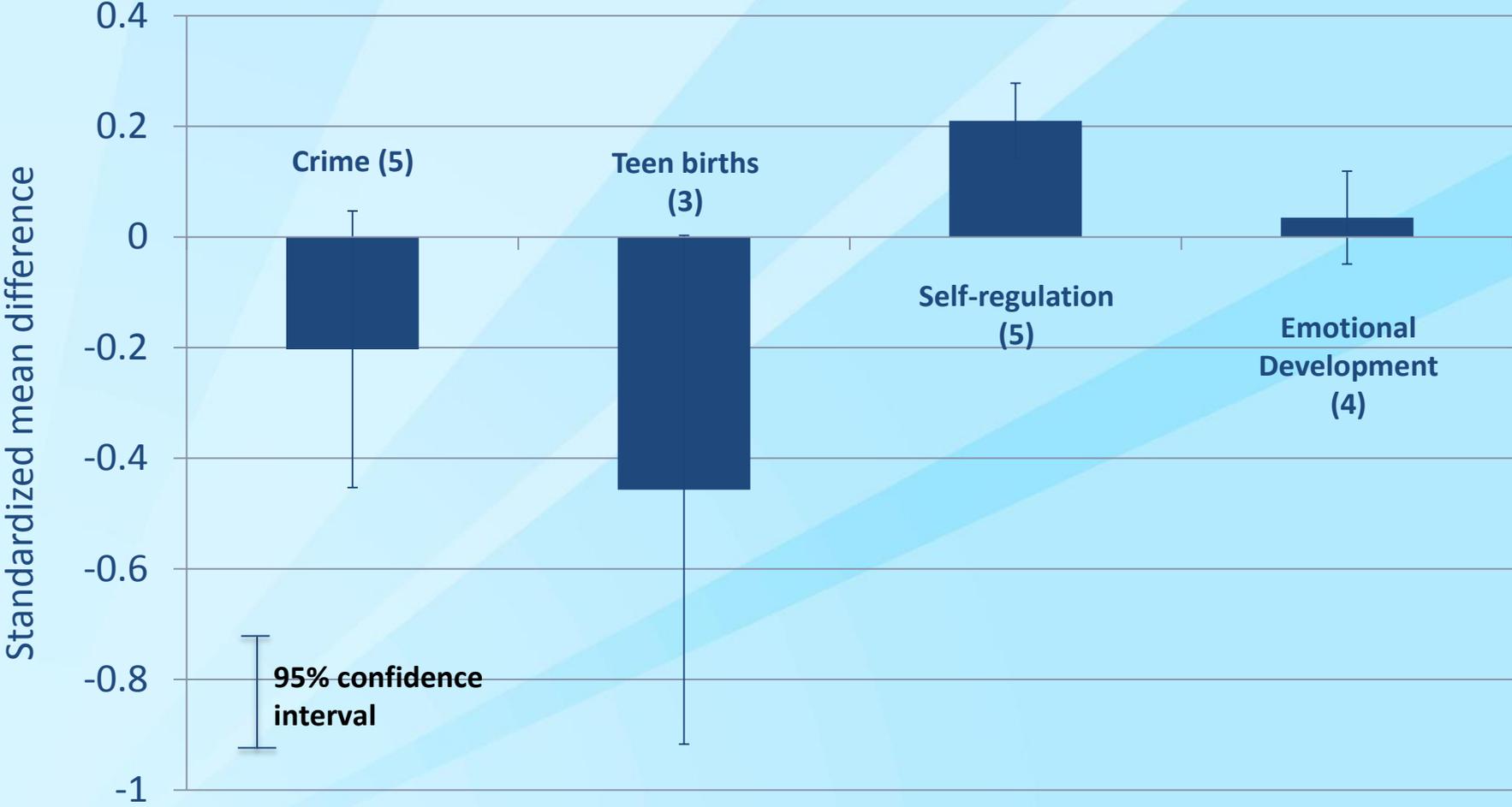
1. Students must be healthy to learn
2. Physical activity in and out of school contributes to student health
3. Students can learn healthy behaviors and risk avoidance in school
4. **Education is a powerful determinant of long-term health**

Education Logic Model for Community Guide Health Equity Reviews



Examples of Findings from Community Guide Health Equity Education Reviews

Center-Based Preschool Program Social and Health-Related Outcomes (Number of studies)



Center-Based Preschool Program Academic Outcomes (Number of studies)



*First test score available following program end

Effects of full-day kindergarten compared with half-day kindergarten, reported in the meta-analysis (Cooper et al., 2010)

Outcome (# of estimates)	Adjusted* d-index, Random effects model	Conclusion Favoring FDK over HDK/ADFDK (significance)
Academic achievement (35)	d index=0.35 (95% CI=0.23, 0.46) d index=0.43 (95% CI=0.07, 0.79)	Significant effect FDK vs. HDK FDK vs. ADFDK
Verbal scores (21)	d index=0.24 (95% CI=0.32, 0.61)	Significant effect FDK vs. HDK
Math scores (9)	d index=0.46 (95% CI=0.06, 0.43)	Significant effect FDK vs. HDK
Ability to work or play with others (1)	d index=1.06 (95% CI=0.63, 1.49)	Significant effect FDK vs. HDK
School attendance (1)	d index=0.09 (95% CI= -0.32, 0.50)	Nonsignificant effect FDK vs. HDK

ADFDK, alternate-day full-day kindergarten; FDK, full-day kindergarten; HDK, half-day kindergarten

*Adjusted for baseline test scores and/or demographics in intervention and control populations

Effectiveness of programs to increase **high school completion** in Wilson et al. 2011

Intervention type	Adjusted^a ORs (95% CI)	Comparison (control) high school completion rate	Additional high school completion percentage points attributable to intervention (study arms)
Vocational training	2.64 (2.12, 3.28)	70.3%	15.9% (51)
Alternative schooling	1.94 (1.34, 2.82)	53.8%	15.5% (30)
Social-emotional skills training	2.35 (1.69, 3.28)	72.3%	13.7% (12)
College-oriented programming	2.46 (1.70, 3.57)	80.9%	10.4% (25)
Mentoring and counseling	2.62 (1.97, 3.47)	83.7%	9.4% (27)
Supplemental academic services	2.06 (1.50, 2.81)	81.0%	8.8% (28)
School and class restructuring	2.23 (1.89, 2.64)	83.6%	8.3% (105)
Multiservice packages	1.87 (1.49, 2.36)	81.6%	7.7% (23)
	1.61 (1.41, 1.83) ^b	32.0%	11.0% (47)
Attendance monitoring and contingencies	1.46 (1.30, 1.63)	73.4%	6.7% (26)
	1.99 (1.65, 2.40) ^b	18.0%	12.4% (39)
Community service	3.53 (1.90, 6.54)	91.0%	6.3% (24)
Case management	2.14 (1.75, 2.62)	92.9%	3.6% (17)

^aAdjusted for study methods, participant characteristics, and implementation

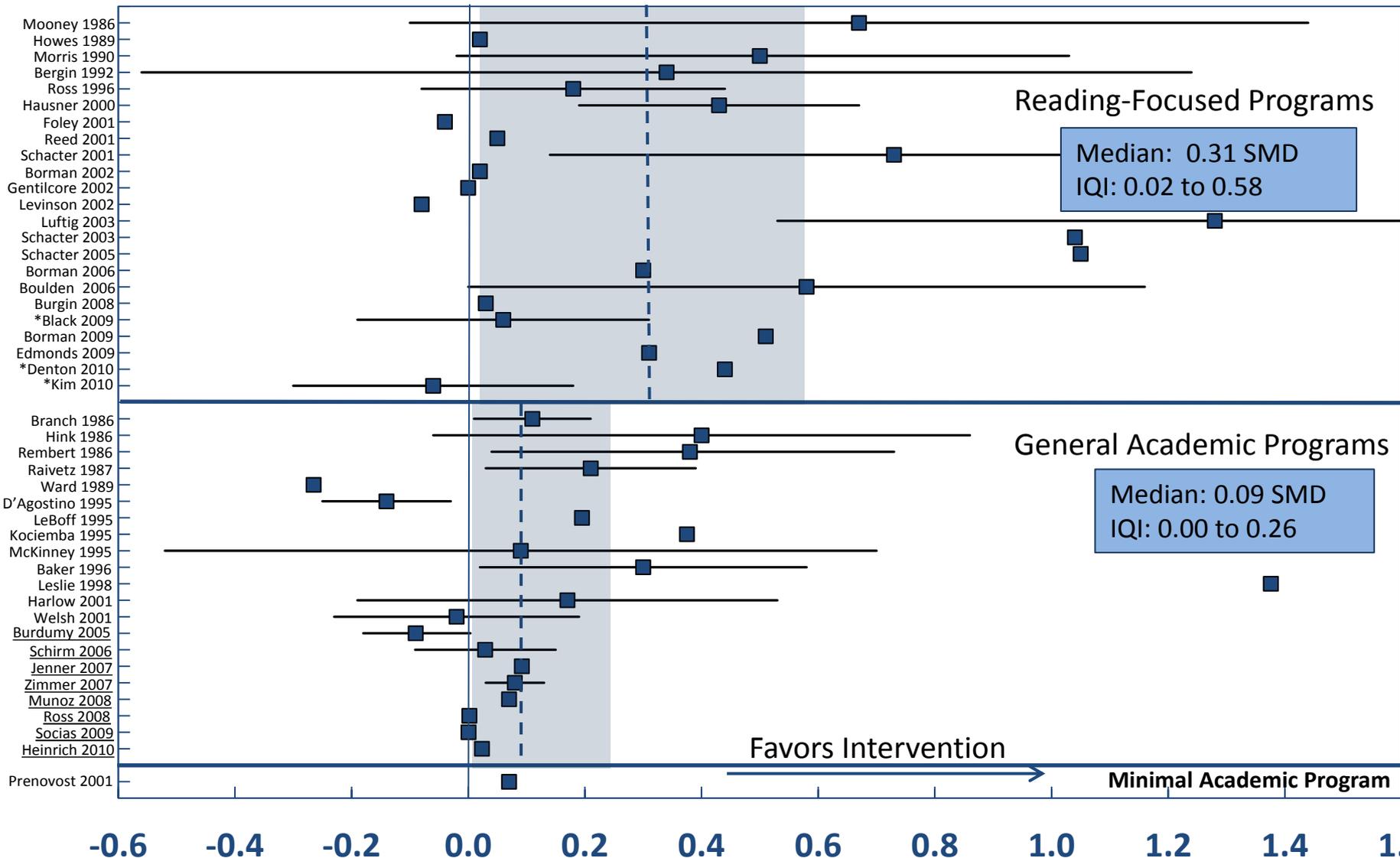
^bTarget population was pregnant and parent students

Effectiveness of Out-of-School Academic Programs on Reading

Achievement Test Scores

Author Year

45 studies; 45 effect estimates

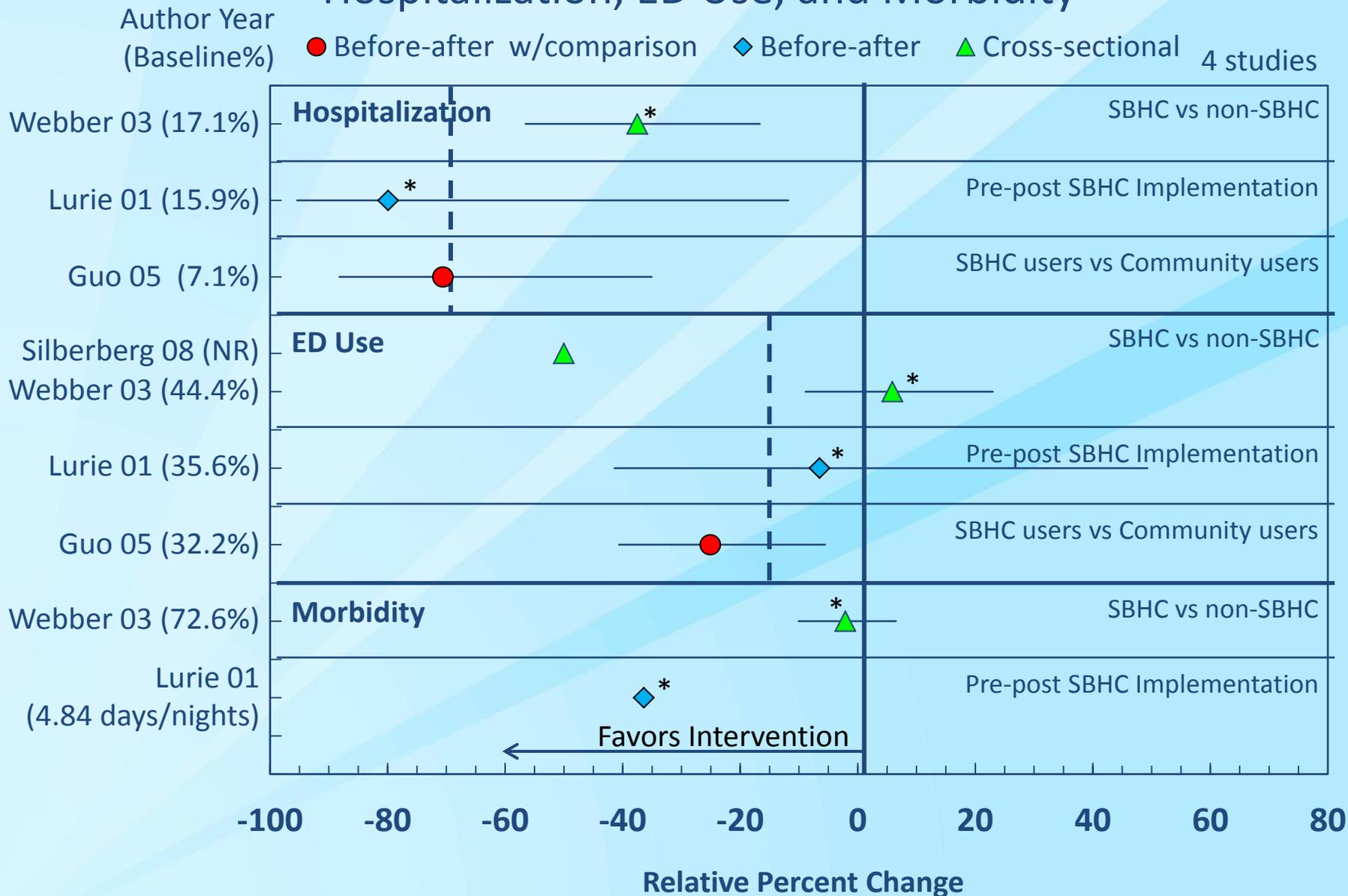


*Indicates study explicitly treated control; for other studies control treatment is unknown

Standardized Mean Difference

Underline indicates study was a multi-site evaluation of federal OSTA program
Shading indicates interquartile range

Effects of School-Based Health Centers on Asthma-related Outcomes: Hospitalization, ED Use, and Morbidity



Community Guide Reviews of Education Programs and Policies to Promote Health Equity (2011-2014)

Intervention Review	Task Force Finding
Center-Based Early Childhood Education	Recommended-strong evidence
Full-Day Kindergarten Programs	Recommended-strong evidence
Out-of-School-Time Academic Programs	
-Reading-focused	Recommended-strong evidence
-Math-focused	Recommended-sufficient evidence
-General	Recommended-sufficient evidence
-Academic Programs with Minimal Academic Content	Insufficient evidence
High School Completion Programs	Recommended-strong evidence
School-based Health Centers	Recommended-sufficient evidence
Extended In-school Time	In process
School and Class De-tracking	In process

With Findings of Effectiveness in Community Guide Reviews, We Make Additional Assessments

1. Applicability
2. Evidence gaps
3. Other benefits and potential harms
4. Implementation issues
5. Economics

Economic Findings in Community Guide Reviews of Education Programs and Policies to Promote Health Equity (2011-2014)

Intervention Review	Economic Findings
Center-Based Early Childhood Education	Cost-beneficial
Full-Day Kindergarten Programs	Insufficient evidence
Out-of-School-Time Academic Programs	Insufficient evidence
High School Completion Programs	Cost-beneficial
School-based Health Centers	Cost-beneficial
Extended In-school Time	In process
School and Class De-tracking	In process

Education as a Public Health Intervention for Health Equity

First evidence in the Community Guide Health Equity reviews indicates that several educational interventions reviewed present effective means of improving the educational and long term health outcomes of lower income and racial and ethnic minority populations in the United States

Thank you!

<http://www.thecommunityguide.org>

For more information please contact the Centers for Disease Control and Prevention

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Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

Visit: www.cdc.gov | Contact CDC at: 1-800-CDC-INFO or www.cdc.gov/info

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