



Strengthening the Evidence Base for Childhood Obesity Prevention: Lessons from the Guide to Community Preventive Services (Community Guide)

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Office of Surveillance, Epidemiology, and Laboratory Services
Epidemiology and Analysis Program Office



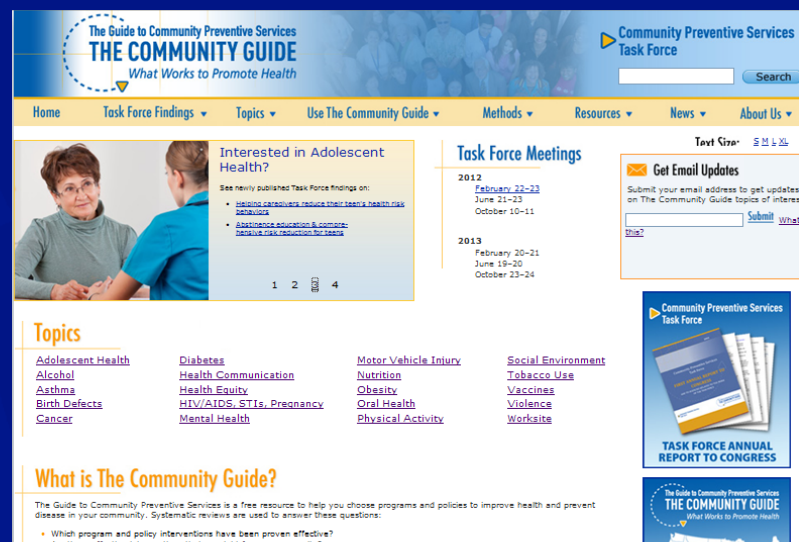
Structure for My Presentation



1. Describe the Community Guide
2. Recommended interventions for childhood obesity prevention and control
3. Evidence gaps identified by the Community Guide
4. What are the implications for childhood obesity researchers, program evaluators, and program planners?

The Community Guide consists of:

- ❑ Systematic reviews that:
 - a) Analyze all available evidence on the effectiveness of community-based programs, services, and policies in public health
 - b) Assess the economic benefit of all effective programs, services, and policies
 - c) Highlight critical evidence gaps
- ❑ Evidence-based findings and recommendations
 - About the effectiveness of these programs, services, and policies
 - Developed by the Community Preventive Services Task Force
 - To help inform decision making



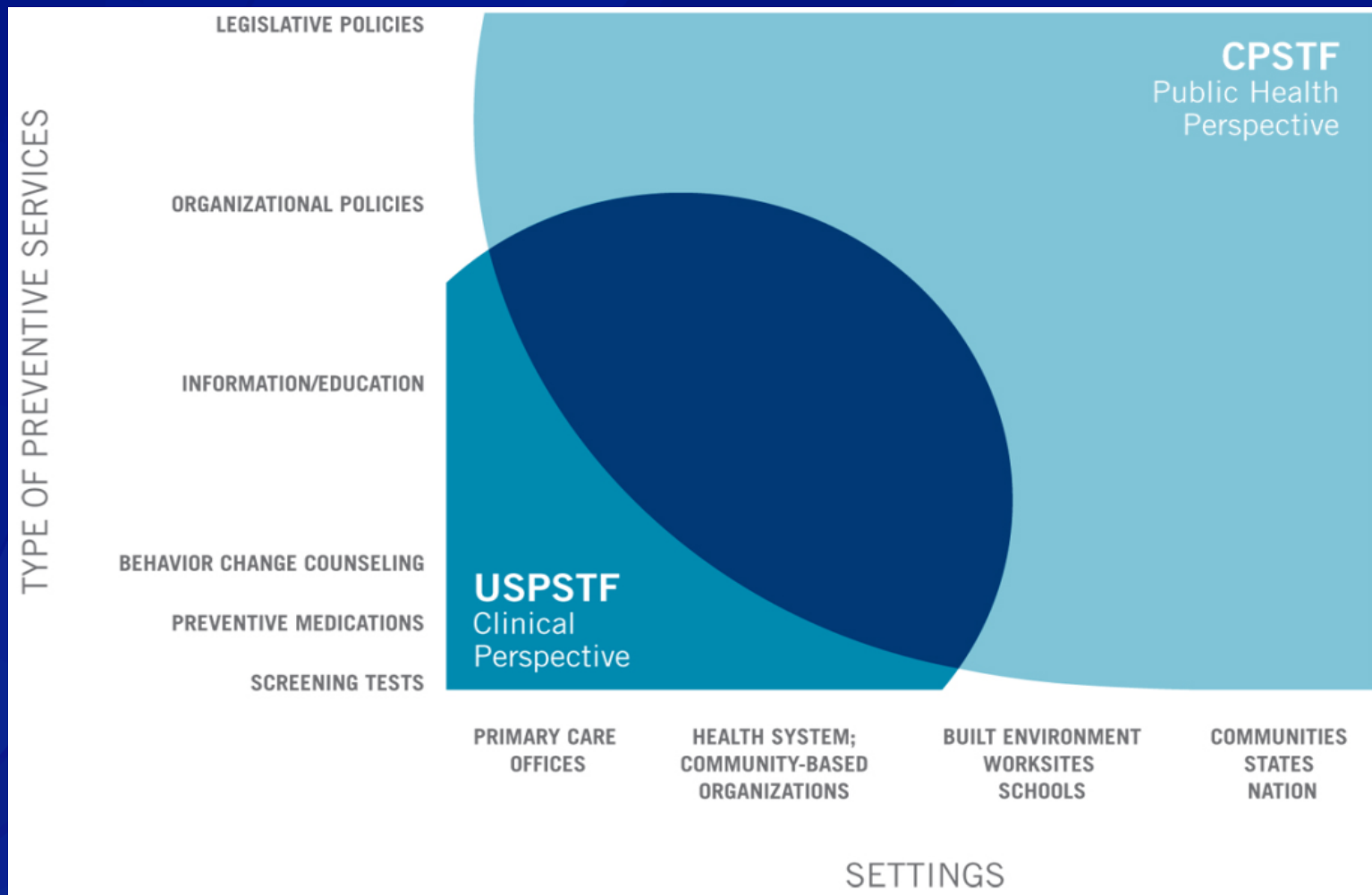
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Community Preventive Services Task Force (Task Force)

- ❑ Nonfederal, independent, rotating body
- ❑ Internationally renowned experts in public health research, practice, policy
- ❑ Nomination process includes broad input from throughout public health, health care
- ❑ Members are appointed by CDC Director
- ❑ Members receive no pay



Complementarity of the US Preventive Services Task Force (USPSTF) and Community Preventive Services Task Force (CPSTF)



Community Preventive Services

Evaluating the effectiveness of interventions that are typically delivered:

- At the group level
- Community or population-based
 - Demographic
 - State/province, city, neighborhood
 - Age, gender, race/ethnicity, economic status
 - Organization
 - Health care system
 - Schools
 - Worksites
- By a wide range of “providers”

Types of Community Preventive Services

□ Informational, Educational

- Classroom-based health education focused on providing information for increasing physical activity
- Mass media campaigns for increasing physical activity

□ Behavioral, Social

- Behavioral interventions to reduce screen time
- Technology-supported interventions—Multicomponent coaching or counseling interventions:
 - To reduce weight
 - To maintain weight loss



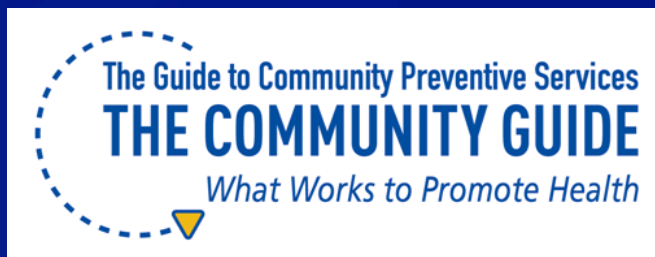
Types of Community Preventive Services (cont'd)

❑ Environmental, Policy

- Creation of or enhanced access to places for physical activity combined with informational outreach activities
- Street scale urban design (lighting, improved safety, ease of walking) in increasing physical activity

❑ Health System

- Provider education for obesity prevention and control
- Provider reminders for obesity prevention and control



~ 220 Task Force Recommendations

The Environment

Social Environment

Health Equity

Settings

**States
Communities**

**Worksites
Schools**

**Healthcare system
Organizations**

Risk Behaviors

**Tobacco Use
Alcohol Abuse/Misuse
Other Substance Abuse
Poor Nutrition
Inadequate Physical Activity
Unhealthy Sexual Behaviors**

Current reviews

Specific Conditions

**Vaccine-Preventable Disease
Pregnancy Outcomes
Violence
Motor Vehicle Injuries
Depression/Mental Health
Cancer
Diabetes
Oral Health
Obesity
Asthma
Cardiovascular disease**

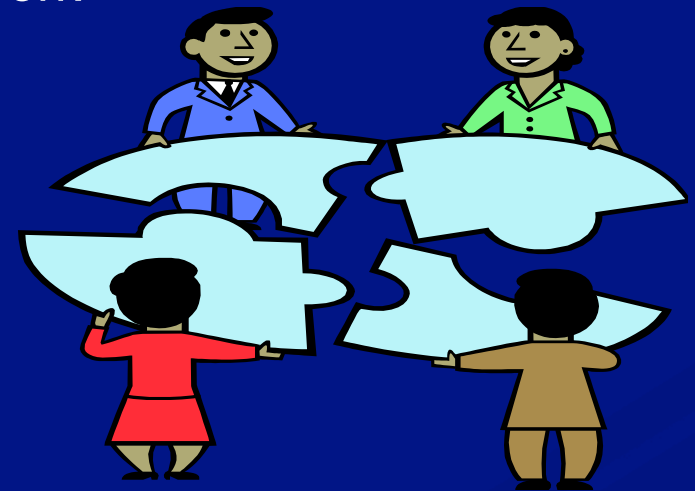
Community Guide: How is it Intended to be Used?

- ❑ To inform decision making around:
 - Practice (initiatives, programs)
 - Policy
 - Research
 - Funding for research and programs



Community Guide Places Equal Weight on the Quality of...

- ❑ Our systematic review methods and analysis
- ❑ Our group processes
 - To help ensure that Task Force findings and recommendations are relevant to user needs, we actively engage intended users and beneficiaries in all components of our work



A Key Challenge

- ❑ Most decision makers considering community preventive services, programs, and policies want to know:
 - Are the findings generalizable *across all* the settings, situations and populations for which I am responsible?
 - Are the findings applicable to my *specific* setting, situation, or population?

Methods: We Seek to Answer Key Questions about Programs, Services, and Policies

- Do they work?
- How well?
- For whom?
- Under what circumstances are they appropriate?
- What do they cost?
- Do they provide value?
- Are there barriers to their use?
- Are there any harms?
- Are there any unanticipated outcomes?



Formal Review of Applicability

- ❑ Information is explicitly provided to Task Force on applicability
 - Considered when they make recommendations
- ❑ Information is provided to users in a refined **Rationale Statement** accompanying the Task Force Recommendation Statement
- ☞ Remaining challenge: information is often limited
 - Critical role for program evaluation of real world programs, services, and policies!!!
 - Information can be incorporated into updates of Task Force recommendations!
 - Studies assessed by Community Guide can be research-tested or practice-based

Childhood Obesity-Related Recommendations

Obesity Prevention and Control

Interventions in Community Settings

Mass Media Interventions to Reduce Screen Time	Insufficient Evidence
School-Based Programs	Insufficient Evidence
Worksite Programs*	Recommended (Strong Evidence)
Behavioral Interventions to Reduce Screen Time	Recommended (Sufficient Evidence)
Technology-Supported Interventions: Multicomponent Coaching or Counseling Interventions to Maintain Weight Loss	Recommended (Sufficient Evidence)
Technology-Supported Interventions: Multicomponent Coaching or Counseling Interventions to Reduce Weight	Recommended (Sufficient Evidence)

Provider-Oriented Interventions

Multicomponent Interventions with Client Interventions	Insufficient Evidence
Multicomponent Provider Interventions	Insufficient Evidence
Provider Education	Insufficient Evidence
Provider Education with a Client Intervention	Insufficient Evidence
Provider Feedback	Insufficient Evidence
Provider Reminders	Insufficient Evidence

Childhood Obesity-Related Recommendations

Physical Activity Promotion

Behavioral and Social Approaches

Classroom-Based Health Education to Reduce TV Viewing and Video Game Playing	Insufficient Evidence
College-Based Physical Education and Health Education	Insufficient Evidence
Family-Based Social Support	Insufficient Evidence
Enhanced School-Based Physical Education	Recommended (Strong Evidence)
Individually-Adapted Health Behavior Change Programs	Recommended (Strong Evidence)
Social Support Interventions in Community Settings	Recommended (Strong Evidence)

Campaigns and Informational Approaches

Classroom-Based Health Education Focused on Providing Information	Insufficient Evidence
Campaigns and Informational Approaches to Increase Physical Activity: Mass Media Campaigns*	Insufficient Evidence
Community-Wide Campaigns	Recommended (Strong Evidence)

Childhood Obesity-Related Recommendations

Physical Activity Promotion

Environmental and Policy Approaches

Transportation and Travel Policies and Practices	Insufficient Evidence
Creation of or Enhanced Access to Places for Physical Activity Combined with Informational Outreach Activities	Recommended (Strong Evidence)
Point-of-Decision Prompts to Encourage Use of Stairs	Recommended (Strong Evidence)
Community-Scale Urban Design and Land Use Policies and Practices	Recommended (Sufficient Evidence)
Street-Scale Urban Design and Land Use Policies and Practices	Recommended (Sufficient Evidence)

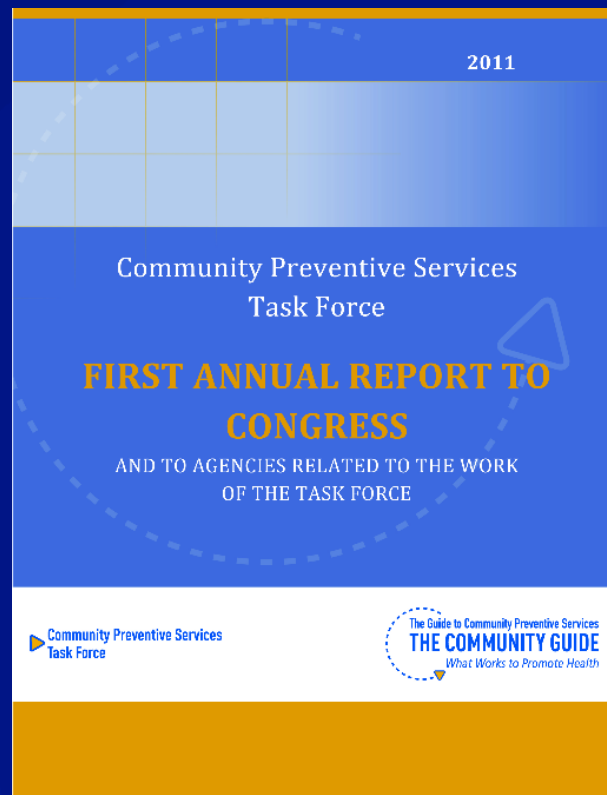
Opportunity for Behavioral Medicine Researchers, Evaluators, and Practitioners:

- ❑ Participate in filling pertinent evidence gaps identified by the Community Guide and summarized in the Task Force's Annual Report to:

- Congress
- Agencies related to the work of the Task Force

- ☞ Evidence gaps can be filled by a combination of:
 - Research studies
 - Evaluations of real world programs, services, and policies

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1. Research Gaps Related to a Task Force Finding of Insufficient Evidence

- ❑ Task Force finding of insufficient evidence when:
 - Not enough studies identified (under-studied)
 - Too few studies with comparable components or outcomes
 - Interventions/intervention components are too varied to allow meaningful overarching conclusions
 - Measured outcomes (and other variables of interest) are too diverse
 - Evidence from different studies is mixed
 - Can't find explanation for differences in magnitude of effects

1. Research Gaps Related to a Task Force Finding of Insufficient Evidence (cont'd)

- ❑ Task Force finding of insufficient evidence when:
 - Too few high quality studies
 - Quality of individual studies is too poor
 - Problems with the body of evidence overall are too severe to allow confidence in any measured effect
 - Serious, recurring flaws in the included studies
 - Concerns over independence of included studies
 - Concerns about additional information
 - Applicability
 - Potential harms

2. Research Gaps Where the Task Force has Made a Recommendation Based on Strong or Sufficient Evidence of Effectiveness

- ❑ Evidence gaps are consistently found in:
 - Applicability of the policy, program, service:
 - To diverse populations and populations with health disparities
 - Age:
 - Elderly
 - Adolescents
 - Low income
 - Racial/ethnic minority
 - To different settings
 - Inner city
 - Rural
 - In different contexts

3. Research Gaps Related to Information Needed to Support Users in Implementing Interventions that Meet Their Needs

□ Consistent evidence gaps:

- Information on key characteristics of the intervention—does effectiveness vary by:
 - Type of provider?
 - Dose or intensity of the intervention?
 - Duration of the intervention?
- Cost effectiveness/cost benefit/cost
- Lack of ability to assess the extent of incremental or synergistic effects of multicomponent or comprehensive interventions
- “How to” methods for helping users select and implement interventions

Implications for Behavioral Medicine Researchers, Evaluators, and Practitioners

- ❑ The Community Guide is a great resource for identifying evidence gaps
 - Interventions for which there is insufficient evidence
 - Refining interventions
 - Assessing external validity
 - Data are so often missing
 - Suggestions for implementation research

Implications for Behavioral Medicine Researchers, Evaluators, and Practitioners

- ❑ Design your study considering:
 - Real-world applicability
 - External validity
- ❑ Consider a range of study designs
 - Mercer, DeVinney, Fine, Green, Dougherty. Study Designs for Effectiveness and Translation Research: Identifying Tradeoffs. *American Journal of Preventive Medicine* 2007 33:139-154
- ❑ Consider the value of evaluation studies as important means of:
 - Assessing applicability to different settings and populations
 - Identifying and evaluating innovations from practice , to build practice-based evidence

Implications for Behavioral Medicine Researchers, Evaluators, and Practitioners

- ❑ Report enough information about your study to support its meaningful inclusion in research syntheses
 - Clear definition of intervention, variables
 - Information on settings, deliverers, etc.

- ❑ Support the development and use of common measures of:
 - Outcome
 - Effect modifiers



For More Information

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The findings and conclusions in this presentation are those of the presenter and do not necessarily represent the views of CDC.