Integrating Bright Futures into Public Health at the State and Local Levels



BRIGHT FUTURES

Promoting Healthy Nutrition and Healthy Weight - (Part 2)

September 1, 2010

Integrating Bright Futures into Public Health at the State and Local Levels



Before We Get Started

http://dhs.wisconsin.gov/dph_bfch/MCH/BrightFutures.htm

Remember to complete the evaluation when we are finished.

It can be found on the above website, along with the slides from today's presentation.

If more than one person is at your site, please send one email informing us of how many.

Integrating Bright Futures into Public Health at the State and Local Levels



PRESENTERS

Moderator: Ann Stueck, Infant and Child Nurse Consultant Bureau of Community Health Promotion (BCHP) Family Health Section (FHS)

Aaron Carrel, MD, Associate Professor of Pediatrics, University of Wisconsin Children's Hospital Pediatric Endocrinology, Diabetes, and Fitness

Murray L. Katcher, Chief Medical Officer, BCHP Wisconsin Department of Health Services (DHS)

Jon Morgan, Physical Activity Coordinator Nutrition, Physical Activity, & Obesity Program, DHS Integrating Bright Futures into Public Health at the State and Local Levels



PRESENTERS

Janice Liebhart, MS, Epidemiologist, Nutrition, Physical Activity, & Obesity Program, DHS

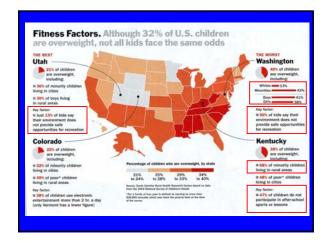
Mary Pesik, Program Coordinator, Nutrition, Physical Activity and Obesity Prevention Program, DHS

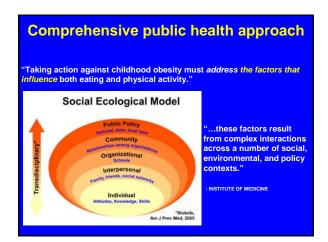
Jordan Bingham, Healthy Communities Coordinator, Nutrition, Physical Activity and Obesity Prevention Program, DHS

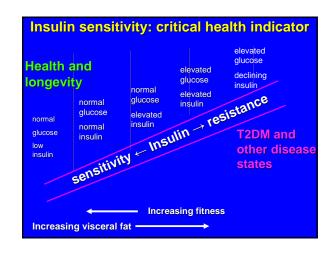
Promoting Pediatric Fitness: Exercise lab to schoolyard



Aaron L. Carrel, MD
University of Wisconsin







Childhood Fitness



- Fitness is a measurable marker
- Increase in fitness reduces risk of T2DM
- In obese adolescents, BMI is a poorer predictor of insulin resistance than fitness
 - Kasa-Vubu, et al. JCEM 2005;90:849-54.
 Gutin B, et al. J Pediatr 2004;145:737-43.



Combination of:

- Pediatrician
- Exercise physiologist (body composition/fitness testing)
- Nutritionist
- Health psychologist

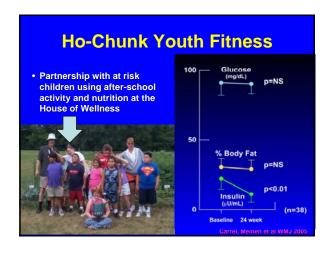
Schools, community centers, after-school, etc

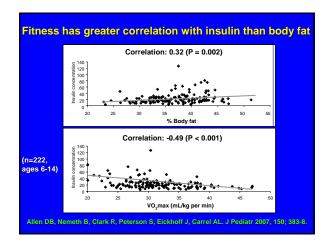
Pediatric Fitness Clinic Pediatric Fitness Clinic Medical evaluation Nutrition assessment Body Composition Exercise testing

Population level vs Individual level What are we doing?

- School-based interventions for fitness
- After-school interventions (YMCA) for fitness
- Statewide database for childhood fitness
- Translation of fitness/IR assessment to schools







Why a school-based program?



- Over 90% of US children are enrolled
- Both active and passive decisions regarding activity, food, attendance can be controlled or altered
- Schools can provide educational and social platform for obesity prevention

CDC supports school-based programs. Logical ideas: Do they work?

- Current recommendations for 60 minutes per day of PA (IOM 2005)
- Recommended that >30 of those minutes come during school (Strong et al 2005, IOM 2005)
- However, decreasing requirement of PE (50% in K-5, 25% by 8th grade, to 5% in 12th grade (Burgeson 2001)
- NCLB (2001) holds schools responsible for academic grades, essentially weakening support for PE
- School needs assessment: CDC school health index

Evidence based* practice: What do we know about schools?

- Studies Focusing on Dietary and Physical Activity Did Not Significantly Improve BMI. (Summerhell CD. 2005)
- Interventions Should be Multi-faceted and Focus on Environment (Cole K. 2005, Micuco S, et al. 2003)
- School-based Interventions Focusing on Reducing Sedentary Behaviors Are Effective. (Classa D. 2004)
- Approaches to Improve Health need to be Implemented along with Community-based Strategies Medica S, 2004.

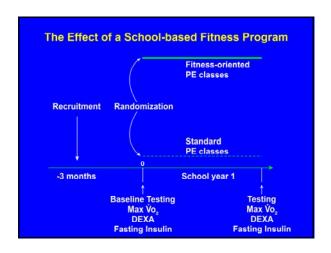
* Cochrane Review 2005

Objective

 Determine whether a school-based curriculum could increase cardiovascular fitness in obese children



River Bluff Middle School - Stoughton, WI







Schools can improve fitness, IR

- Fitness classes improved fitness, body composition, and insulin levels.
- Physical fitness is a key determinant of insulin sensitivity and can be measured in children
- Small consistent activity changes can lead to significant benefits.
- Changes dependent upon ongoing school curriculum (summer loss)

Carrel, Allen et al. Arch Ped Adol Med 2006
Carrel et al. Arch Ped Adol Med 2007

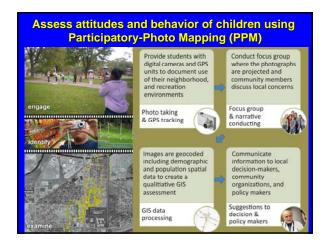
Measuring Childhood Fitness in WI

- · Fitness plays an important role in health
- Wisconsin Partnership grant measuring fitness across Wisconsin
- Partnership with DPI, school staff, UW Population Health Institute, Pediatrics
- Utilizes PACER (aerobic portion of Fitnessgram; 20 meter shuttle run in gym class)









Conclusions

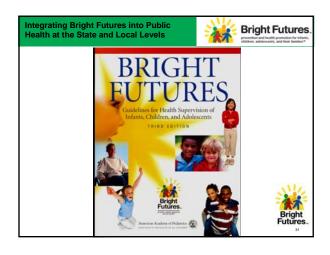
- For prevention strategies, physical inactivity may represent a greater metabolic risk than obesity alone
- We need "real-world" approaches with long lasting impact, and systems to promote physical activity
- SEM guides us towards multidisciplinary model for public health, and translational research
- This model underscores that changes are made in a broader social environment, and schools are an excellent place to start

Time for Questions for Dr. Carrel

Integrating Bright Futures into Public Health at the State and Local Levels



Murray L. Katcher, MD, PhD
Chief Medical Officer, BCHP
Wisconsin Department of Health Services
(DHS)





Bright Futures Guidelines—3rd Edition

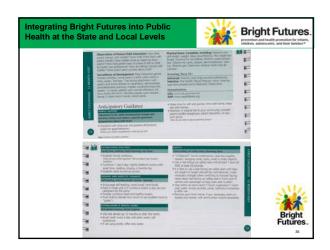
Features of special interest to Public Health professionals:

Revised Periodicity Schedule
Integrated adaptations throughout for children and youth with special health care needs
Visit section defines newer, more family- and community-driven, enhanced content for the well care of infants, children, and adolescents in primary care practice
The 10 Themes have special application to Public Health

Bright Futures

Integrating Bright Futures into Public







Integrating Bright Futures into Public Health at the State and Local Levels



Wisconsin's Bright Futures Webcasts

Applying the 10 Bright Futures Themes to Public Health

- Promoting Oral Health
- · Promoting Safety and Injury (and Violence) Prevention
- Promoting Healthy Weight
- · Promoting Healthy Nutrition
- Promoting Physical Activity



Integrating Bright Futures into Public Health at the State and Local Levels



Wisconsin's Bright Futures Webcasts

Applying the 10 Bright Futures Themes to Public Health

- · Promoting Family Support
- · Promoting Child Development
- Promoting Mental Health
- Promoting Healthy Sexual **Development and Sexuality**
- Promoting Community **Relations and Resources**



Integrating Bright Futures into Public Health at the State and Local Levels **Bright Futures** Bright Futures Tool and Reson BRIGHT UTURES



Integrating Bright Futures into Public



Promoting Physical Activity

· Temptations to adopt a sedentary lifestyle

· Vigorous-intensity physical activity

Integrating Bright Futures into Public Health at the State and Local Levels



Promoting Physical Activity

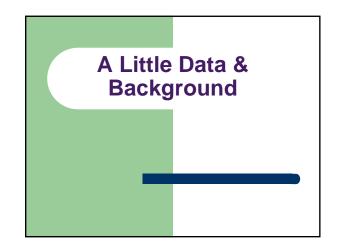
- · Children and Youth with **Special Health Care Needs**
- Infancy—Birth to 11 Months
- Early Childhood—1 to 4 Years
- Middle Childhood—5 to 10 Years
- Adolescence—11 to 21 Years

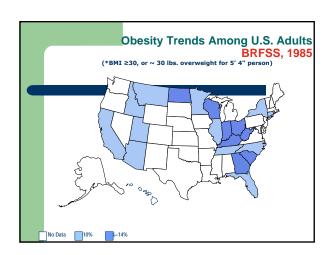
Physical Activity
Strategies to Impact Obesity

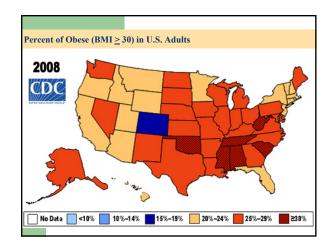
Attacking a multifaceted problem

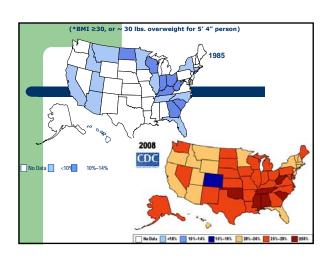
Jon Morgan, MS Physical Activity Coordinator

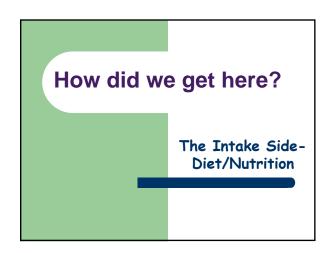




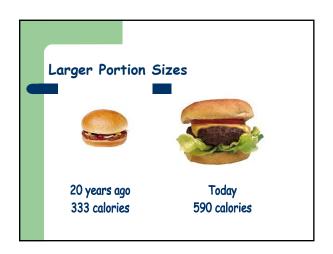




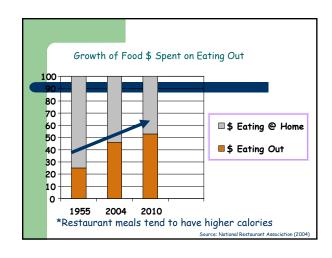


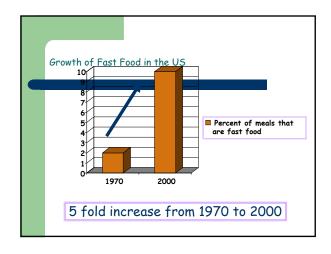


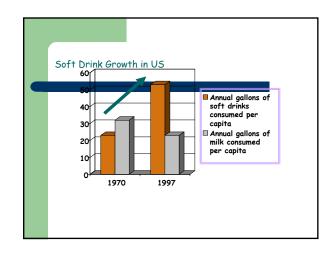


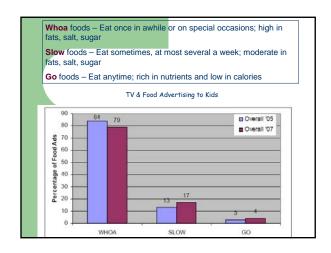


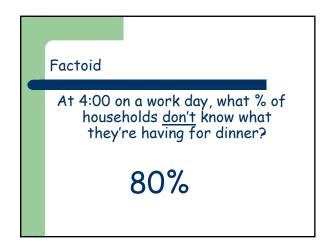






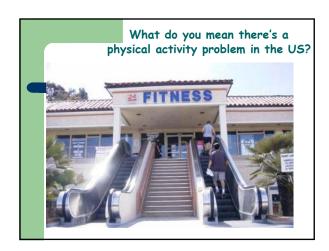


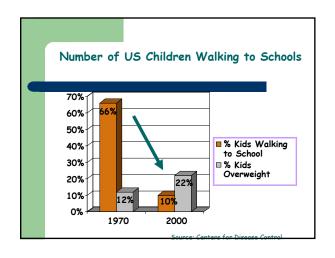


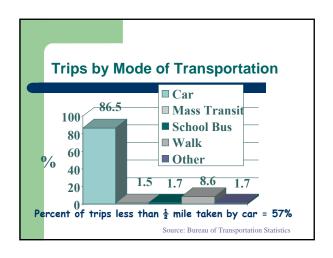








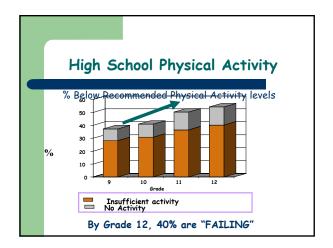


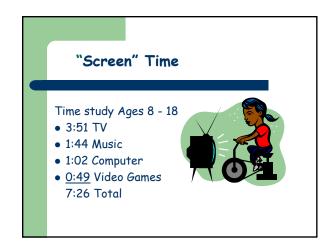


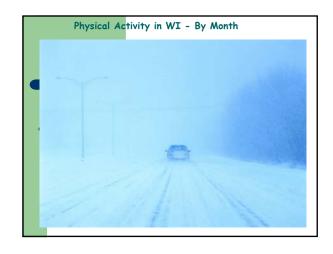
Physical Activity Recommendations For Better Health

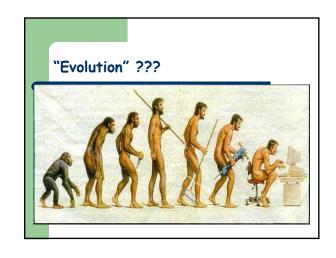
PHYSICAL ACTIVITY:

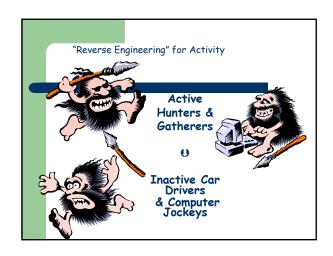
- Minimum of 30 minutes per day (60 minutes for children)
- o At least 5 days a week
- o Everyday activities count (ex. yard work)!
- o Need greater amounts (60-90 minutes) for weight loss

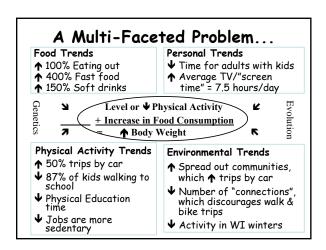






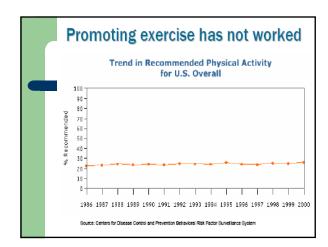












Individual Change Working One-on-One: Resource intense Individuals tend to revert back to old behaviors Does not address the environment where the individual lives, works, plays

Change thru Individual Education

Why is it so hard?

- It's been proven that knowledge change alone rarely translates into healthy behavior change
- "Good" message is overwhelmed by competing advertising
 - \$2 million NIH 5-a-day campaign
 - \$30 million "Got Milk" campaign







Marketing Being Active and Healthy Eating

Part of the reason it's a tough sell:

 Coke ads take advantage of the fact that most people already consume soda.

They only need to convince you to switch.

- Getting a sedentary person to be active means you need to change them from their preferred state to the almost opposite desired state.
- In other words, you need to get them to reverse their current choice (being sedentary).

Coke spends almost \$1 billion to convince people to switch while health advocates spend literally nothing to try and reverse behavior!

Individual Behavior Change: Physical Activity, Eating & Weight

The reality is people that are relying on just individual motivation to change will:

- Fail ofter
- Succeed some of the time, but likely backslide
- Succeed long term, but in relatively small #s

They need to be "hit" multiple times from multiple sources until the environment and the message is so overwhelming that it tips everyone toward success.

Levels of the Social-Ecological Model Behavior -Individual -Interpersonal Environment -Organizational -Community Policy - National laws - State laws - Local laws

Do the math!



Think in terms of impact using the formula: DOSE x REACH = IMPACT

<u>Dose</u> is how much of a given strategy is occurring i.e. minutes of activity or # of fruits and vegetables eaten

Reach is what percent of the targeted population is being affected.

1 Example in a school of 100 kids

Use 1 dose of activity is equal to 10 minutes. Child goal is 60 minutes per day or 6 doses.

Scenario 1 – School holds a 1-day event where kids walk for 30 minutes. All kids participate so impact is 3 doses x 100% = 300 (for the year)

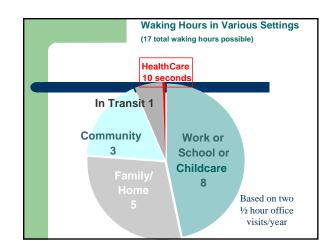
Scenario 2 – School institutes a new policy that requires daily "active classrooms" where there is 10 minutes of activity in the morning & afternoon. All kids participate, so impact is 2 doses x 100% = 200 x 180 school days = 36,000 (for the year)





Settings to Consider

- Community
 - Access to Fruits and Vegetables
 - Active Environments
 - Gardening
 - Grocery Stores
 - Restaurants
- Early Childhood Care & Education
- Healthcare
- School
- Worksite



Focus on Policy & Environmental Change

Can look at individual policies or use NPAO toolkits that imbed policy and environmental changes

Let's Look at the Settings

Early Childhood Setting—Why?

- · Approximately 245,000 WI children are in some form of regulated care (license or certified)
- Children spend an average of 31 hours per week in family child care or 34 hours per week in child care centers

Early Childhood Setting--Strategies

Strategies:

What Works in Early Childhood:

· Currently under development; expected release yet

Childcare Toolkit for Physical Activity

· Just completed draft for pilot groups

School Setting—Why?

- Students spend over half their day in school and school-related settings
- · There are lots of opportunities to integrate short bouts of physical activity into the day, particularly at the elementary levels.

School Setting--Strategies

Strategies:

- · What Works in Schools
- 17 physical activity strategies in Active Schools Kit
- · Nutrition education
- · Farm-to-school
- School gardening
- Recess before lunch; adequate time to eat
- Reduce or eliminate foods of minimal nutritional value
- Develop nutrition standards for competitive foods
- · Limit food advertising in school environment

School Setting—Current Efforts

- What Works in Schools
- 2. Governor's School Health Award recognizing schools that are improving environments for healthier eating &increased physical activity



WI Active Schools Kit - 17 key strategies http://www.dpi.wi.gov/sspw/sas.html

Active School Categories and 17 Strategies

- Physical Education % of time students are active
- Physical Education % of this
 Physical fitness assessment
 Active recess
 Active classrooms
- Open gym time
- 7. Intramurals

- 7. Intramurals

 8. Before or after school activities (Play 60)

 9. Extra credit activities for PE class

 10. Tracking campaigns (Movin' and Munchin' Schools)

 11. Allow public access to multi-use facilities (multi-use agreements)

 12. Youth sports (Park & Recreation programming)

 13. Parks and playgrounds

 14. Safe Routes

 14. Safe Routes

- 15. Walking school bus
 16. Community Master plan and "Complete Streets"
 17. School location and sidewalks & trails to school

Community Setting—Why?

- Approximately, 5.5 million people are living in WI communities
- Active living and eating healthy are closely tied to access to opportunities

Community Setting--Strategies

 What Works in Communities: Active Environments Kit

Community Setting—Current Efforts

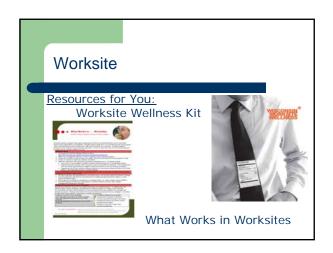
- Active Community Environments Resource Kit--a resource for helping communities complete an assessment of their environment for activity, includes strategies for creating an active community
 - Active Environment pilot project—Marathon County, WI
- Safe Routes to School—state funding opportunities; encourage your local school to apply

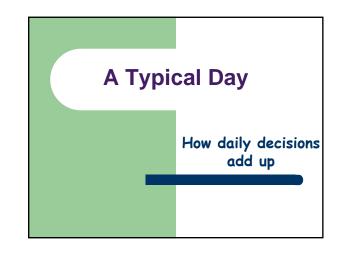
Community Built Environment Resources for You: Active Community Environments Toolkit What Works: Active Community Environments

What Works in Healthcare What works in Healthcare White the state of the state of

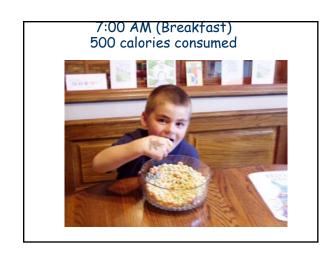
Worksite Setting—Strategies & Current Efforts

- · What Works in Worksites:
- WI Worksite Wellness Resource Kit
- Governor's Worksite Wellness Award













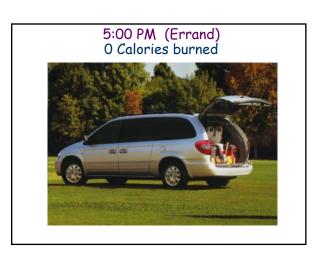


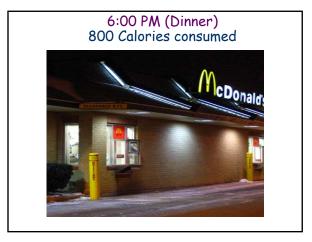




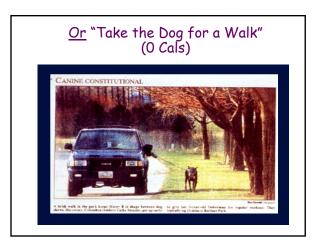














"Bad" Day Totals

Calories consumed in meals & snacks = 2550

Calories burned thru activity during the day =



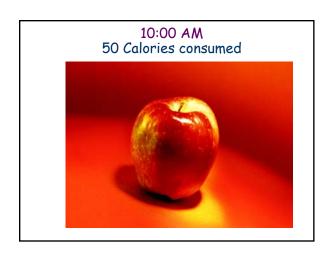
Net difference = + 2448 (Weight gain? Likely)







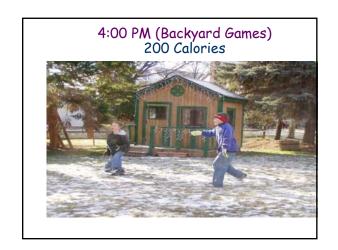






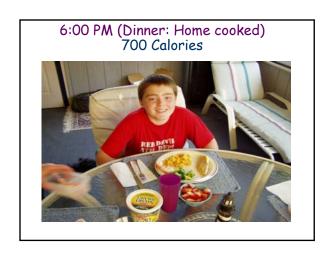
















"Good" Day Totals Calories consumed in meals & snacks = 1825

Calories burned thru activity during the day = **800**

Net difference = 1025
(Burned due to daily caloric use Very Likely)
(.... and then some - possible weight loss??)

. Otal	+2448 Net	#2 = 14					
Total	2550 Eaten, 102 Burned		1825 Eaten, 800 Burned				
7:00	Let dog out / TV	2	100	Walk dog / TV			
6:00	Dinner @ Mac's	850	700	Healthy Dinner			
5:00	Errand – drive	0	100	Errand - bike			
4:30	Snack (Candy)	150	75	Snack (Fruit)			
4:00	Video games	0	200	Backyard games			
3:00	Bus home	0	100	Walk/bike home			
Noon	Ala Carte Lunch	800	600	USDA lunch			
11:00	Physical Ed.	100	200	Active PE			
10:00	20 oz. "Snack"	250	50	Snack, apple			
8:00	Bus to School	0	100	Walk to school			
7:00	Sugar Cereal	500	400	Healthy Cereal			
A Typical Day: 2 Options							

Take Home Thought



"Because of the increasing rates of obesity, unhealthy eating habits, and physical inactivity, we may see the first generation that will be less healthy and have a shorter life expectancy than their parents." *

* Surgeon General Richard H. Carmona, MD: Testimony to US Senate, March 2, 2004

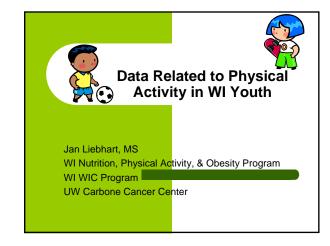
New England Journal of Medicine Vol 352:1138-1145, March 17, 2005

A Potential Decline in Life Expectancy in the United States in the 21st Centur

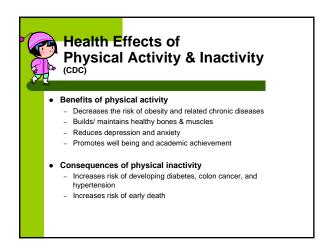
Visit our web site

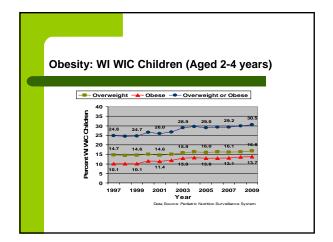
Google on: "WI Physical Activity"

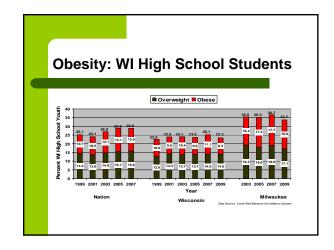
http://www.dhs.wisconsin.gov/health/physicalactivity/index.htn

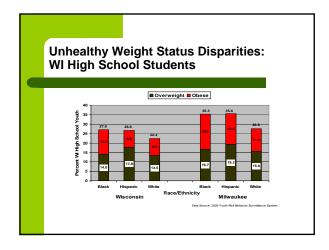


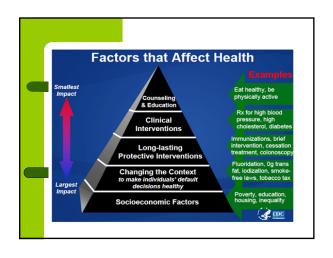
Youth Obesity: Trends, Consequences,& Key Health Behaviors In the past three decades, youth obesity rates have: Doubled for youth ages 2-11 Tripled for youth ages 12-19 Obesity in youth can cause: Hypertension, elevated blood lipids, insulin resistance Obesity later in life Poor quality of life Key Health Behaviors Associated with Obesity: Low physical activity levels; high levels of TV viewing Formula feeding











TV Viewing Time Rates and Disparities in WI Youth



- Youth exceeding TV viewing recommendations (2009 PedNSS; 2009 YRBS)
 - 18% WIC children
 - 23% WI high school students
 - 27% males; 19% females
 - 43% Milwaukee high school students
 - 42% of males; 43% of females
- Youth exceeding 3 hours computer time/ day (2009 YRBS)
 - 19% WI & 27% Milwaukee high school students

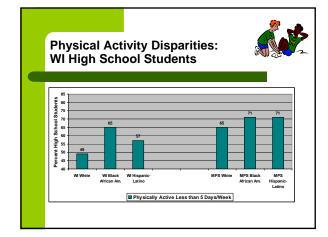
Percent WI Youth Exceeding TV Viewing Guidelines by Race/Ethnicity

Race/Ethnicity Population	Black/ African American	Hispanic/ Latino	White
WI high school students	46%	26%	21%
Milwaukee high school students	48%	39%	32%

Environmental Predictor of TV Viewing Time: TV in bedroom

- 40% of WI youth ages 6-17 have a TV in their bedroom (National Survey of Children's Health, 2007)
- By income level
 - 31% of youth at or above 400% Federal Poverty Level
 - 43-48% of youth below 400% FPL
- By race/ethnicity
 - 37% Whites
 - 41% Hispanics/Latinos
 - 68% Blacks/African Americans

Physical Activity Rates: WI High School Students The second of the sec



Environments/ Policies/ Systems Related to Physical Activity in WI Youth

- CDC State Indicator Report for Physical Activity:
 - WI is 1 of 20 states with policy requiring or recommending elementary school recess
 - 52% of WI youth do not have parks, community centers and sidewalks in neighborhood
- Social predictors of physical activity (NSCH, 2007)
 - 38% of WI youth (ages 0-17) have a father and 47% have a mother who do not exercise regularly
 - 1 in 7 WI youth live in unsafe neighborhoods

Local Obesity & Physical Activity Data Online

- USDA Food Environment Atlas:
 - http://maps.ers.usda.gov/FoodAtlas/foodenv5.aspx
 - Many nutrition indicators (e.g., access and proximity to grocery stores; # fast food restaurants, etc.)
 - Obesity; available recreation and fitness facilities per 1000 population;
 - Demographics: Race/ethnicity; income; poverty rate, etc.

Local Obesity & Nutrition Data Online: WI Department of Health Services

- WI WIC Website (WICPRO)
 - Child (aged 2-4) (PedNSS Reports):
 - Overweight & obesity (measured)
 - Screen time > 2 hours/day
- Wisconsin Interactive Statistics on Health (all counties module)
 - http://dhs.wisconsin.gov/wish/measures/BRFS/all County.htm
 - Adult overweight and obesity
 - Adult physical inactivity

State-level Obesity & Physical Activity Data: WI Dept. Public Instruction

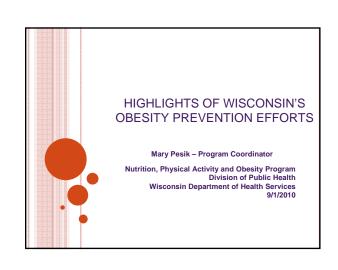
- Youth Risk Behavior Survey (high school)
 - WI DPI reports & graphs
 - http://dpi.wi.gov/sspw/yrbsindx.html
 - New CDC Interactive version: Youth Online
 - http://apps.nccd.cdc.gov/youthonline/App/Default.aspx
 - Weight status, physical activity, screen time, by state or city (e.g. Milwaukee) and demographic groups
- School Health Profiles (middle/high school)
 - http://dpi.wi.gov/sspw/shepindex.html
 - Health environment & policies



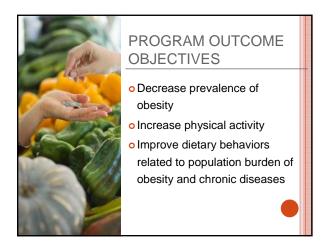
State-level Obesity & Physical Activity Data Online: CDC

- National Survey of Children's Health (youth < 18)
 - http://www.nschdata.org/Content/Default.aspx
 - Includes predictors of physical activity and screen time
- State Indicator Report on Physical Activity
 - http://www.cdc.gov/physicalactivity/downloads/PA _State_Indicator_Report_2010.pdf
- Nutrition, Physical Activity and Obesity State Legislative Database
 - http://apps.nccd.cdc.gov/DNPALeg/index.asp









PROGRAM IMPACT OBJECTIVES

- Increase the number, reach and quality of policies and standards set in place to support healthful eating and physical activity in various settings.
- Increase access to and use of environments to support healthful eating and physical activity in various settings.
- Increase the number, reach and quality of social and behavioral approaches that complement policy and environmental strategies to promote healthful eating and physical activity.

FIVE-YEAR PERFORMANCE MEASURES

Evidence showing:

- Progress toward meeting the nutrition, physical activity and obesity state plan objectives
- Local & state or policies, environmental supports, and/or legislative actions initiated, modified, or planned for the prevention or control of obesity and other chronic diseases
- Increased physical activity and improved dietary behaviors.
- Prevalence of obesity begins to stabilize or decrease.
- Partnerships and resources to sustain efforts.

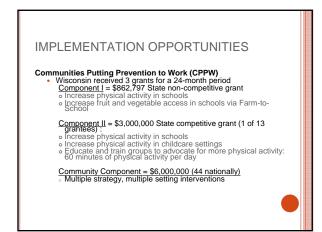
NPAO PROGRAM ACTIVITIES

Catalyst...

- Leadership
- · Strategic partnerships
- NPAO State Plan
- Monitoring and Surveillance
- Evaluation
- Technical assistance and training
- Education
- Advocacy
- Resources
- Funding



Individual Culture Skills Knowledge Time Breastfeeding, Healthy eating & Physical Activity Environment Advertising Advertising Environment Advertising Advertising Environment Advertising Advertising Environment Advertising

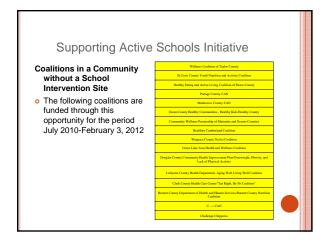


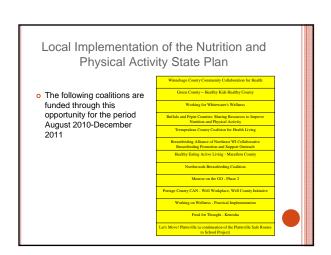
Promoting Healthy Communities and Local Coalitions

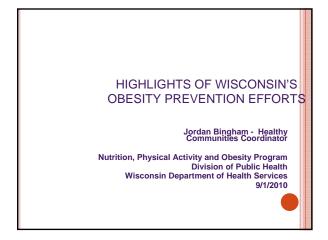
- o Current Coalition Funding and Activities
 - · Local Implementation of the Wisconsin Nutrition and Local Implementation of the Physical Activity State Plan Recommended Strategy Areas: Active Community Environments Breastreeding Support Food Environments School Wellness Worksite Wellness
 - · Communities Putting Prevention to Work -Active Schools Project
 - · Healthy Lifestyles Coalitions

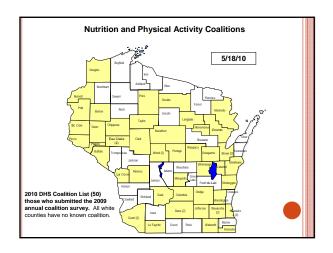


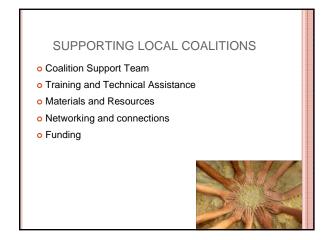




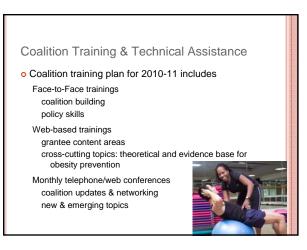






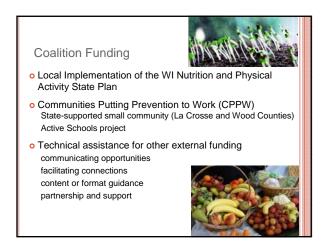


Coalition Support Team • Work group with statewide representation from coalitions and other key stakeholders • Advisory role for coalition funding, training • Local perspective • Multi-year action plan and participation information available from jordan.bingham@wisconsin.gov













Time for Questions

Bright Futures
Bright Futures
Bright Futures
Bright Futures
Bright Futures
Bright Futures

