Physical Activity – Nutrition – Healthy Weight Program (Obesity P & C) Maine CDC

Topic: Policy and Environmental Change at the State level

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Focus on Policy, Systems and Environmental Change Strategies:

- Policies include laws, regulations, and rules (both formal and informal)

- Environmental interventions include changes to the economic, social, or physical environments

  - Preaching “exercise more and eat less” has not worked. Personal responsibility? Much more complex.
Evolution of the PAN-HW Program

• Capacity Building phase years 1 – 4
  – Start July 2003
  – PAN Plan 2005-2010

• Implementation Status year 5

• CDC reduced funded states in 2008 (Yr 6)
  – 2008/2009 reduced staff
  – 2010 rebuilding year - ARRA
CDC/DNPAO & PAN-HW Goals
Division of Nutrition, Physical Activity and Obesity
Physical Activity - Nutrition – Healthy Weight Program

• Increase health-related physical activity through population-based approaches.

• Improve those aspects of dietary quality most related to population burden of chronic disease and unhealthy child development.

• Decrease prevalence of obesity through prevention of excess weight gain and maintenance of healthy weight loss.
CDC/PAN Plan - Target Areas

- Decrease consumption of sugar sweetened beverages
- Reduce consumption of high energy dense foods
- Increased physical activity
- Reduced television time (youth)
- Increased breastfeeding
- Increased consumption of fruits and vegetables

For what target area has Maine recently had a significant policy success specific to worksites?
Objectives/Strategies

- PAN Plan 2005-2010 addresses youth and adults
- Settings
  - School
  - Community
  - Healthcare
  - Worksite
MAN, I'LL NEVER MAKE MY QUOTA!

HOPE THE FIRST LADY CAN HELP...

ARMY STRONG, SERGEANT TRUMAN SPEAKING.

HELLO, SIR. THIS IS JASON NABORS. YOU SENT ME A RECRUITMENT DVD?

SURE, NICE TO TALK TO YOU, SON! HOW CAN I HELP YOU?

WELL, I CHECKED IT OUT, SIR, AND I THINK TODAY'S ARMY IS FOR ME!
AND I'M TALKIN' THE REAL DEAL — JUMPIN' FROM PLANES, HUMPIN' UP MOUNTAINS, REAL SUCK-IT-UP RANGER STUFF!

EXCELLENT, SON. WHY DON'T YOU COME ON DOWN AFTER SCHOOL, AND WE'LL GET INTO IT.

GOOD DEAL, SIR — SEE YOU LATER!

NICE.

LATER.

WHAT? WHAT?
Prevalence of Obesity (> BMI 30) Maine - US

Percent of Maine Adults Who are Obese (BMI 30 or above)


Prevalence of Obesity (> BMI 30) Maine - US

25.2%
Trends in Child and Adolescent Obesity - US

Note: Overweight is defined as BMI >= gender- and weight-specific 95th percentile from the 2000 CDC Growth Charts.
Source: National Health Examination Surveys II (ages 6-11) and III (ages 12-17), National Health and Nutrition Examination Surveys I, II, III and 1999-2004, NCHS, CDC.
Recent Data/Studies on Childhood Obesity

• Implications
  – Contemporary children are heavier than ever
  – More children becoming heavier, earlier

More children than ever before facing increased risks of heart attack/deaths and other serious chronic disease in adulthood

Baker et.al. 12-6-07 NEJM
Childhood Obesity – The Shape of Things to Come, David Ludwig, MD.

• tip of the iceberg re: consequences of obesity epidemic

• Phase IV of obesity epidemic
  – Acceleration through transgenerational mechanisms

• Economic costs could become catastrophic
  – Diminished worker productivity
  – Bankruptcy of Medicare
  – Shrinking health care coverage
  – Neglect of social structure

David S. Ludwig, MD, PhD., NEJM 12-6-07
Cost of Overweight/Obesity

• Medical Expenses Maine
  – $357 million per year
  – Or, nearly 1 million/day
  (Finklestein et al, 2004)

• Other Costs?
### Productivity Loss Costs by Risk Factor

<table>
<thead>
<tr>
<th></th>
<th>Physical Inactivity</th>
<th>Overweight</th>
<th>Obesity</th>
</tr>
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<tbody>
<tr>
<td>Absenteeism</td>
<td>129,819,475</td>
<td>51,386,876</td>
<td>165,519,831</td>
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<tr>
<td>Presenteeism</td>
<td>2,072,784,287</td>
<td>591,327,710</td>
<td>1,901,855,312</td>
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<tr>
<td>S.T. Disability</td>
<td>126,573,988</td>
<td>79,947,160</td>
<td>257,475,292</td>
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<tr>
<td>On-the-job injury</td>
<td>1,159,289</td>
<td>466,391</td>
<td>1,101,325</td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td>2,330,337,039</td>
<td>723,128,137</td>
<td>2,325,951,760</td>
</tr>
<tr>
<td>Risk Factor Prevalence</td>
<td>x 0.469</td>
<td>x 0.439</td>
<td>x 0.294</td>
</tr>
<tr>
<td><strong>Total Costs</strong></td>
<td>$1,092,928,071</td>
<td>$317,453,252</td>
<td>$683,829,817</td>
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</tbody>
</table>

**Overall Productivity Loss Costs $2,094,211,140**
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<tbody>
<tr>
<td></td>
<td>Direct (%)</td>
<td>Indirect (%)</td>
<td>Direct (%)</td>
<td>Indirect (%)</td>
<td>Direct (%)</td>
<td>Indirect (%)</td>
</tr>
<tr>
<td><strong>Medical Care</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1. Treatments</td>
<td>$18,244,352</td>
<td>$41,414,679</td>
<td>$8,076,700</td>
<td>$18,334,109</td>
<td>$11,747,927</td>
<td>$26,667,794</td>
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<tr>
<td>2. Rx Drugs</td>
<td>39,242,531</td>
<td>89,080,545</td>
<td>20,864,983</td>
<td>47,363,511</td>
<td>41,863,148</td>
<td>95,029,346</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>57,486,883</td>
<td>130,495,224</td>
<td>28,941,683</td>
<td>65,697,620</td>
<td>53,611,075</td>
<td>121,697,140</td>
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<tr>
<td><strong>Workers’ Compensation</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1. Medical</td>
<td>$1,491,282</td>
<td>$5,965,128</td>
<td>$436,216</td>
<td>$1,744,864</td>
<td>$701,125</td>
<td>$2,804,500</td>
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<tr>
<td>2. Wages</td>
<td>351,548</td>
<td>0</td>
<td>109,858</td>
<td>0</td>
<td>263,661</td>
<td>0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>1,842,830</td>
<td>5,965,128</td>
<td>546,074</td>
<td>1,744,864</td>
<td>964,786</td>
<td>2,804,500</td>
</tr>
<tr>
<td><strong>Lost Productivity</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>$1,092,928,071</td>
<td>0</td>
<td>$317,453,252</td>
<td>0</td>
<td>$683,829,817</td>
<td>0</td>
</tr>
<tr>
<td><strong>Sub-totals</strong></td>
<td>$1,152,257,784</td>
<td>$136,460,352</td>
<td>$346,941,009</td>
<td>$67,442,484</td>
<td>$738,405,678</td>
<td>$124,501,640</td>
</tr>
</tbody>
</table>

*Indirect costs are not applicable in this category, since lost productivity measures, as characterized in the Chenoweth analysis, are considered to be immediate (direct) costs to employers.*

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<tr>
<th>Risk Factor</th>
<th>Total Cost</th>
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<tbody>
<tr>
<td>Physical Inactivity</td>
<td>$1,288,718,136</td>
</tr>
<tr>
<td>Overweight</td>
<td>414,383,493</td>
</tr>
<tr>
<td>Obesity</td>
<td>862,907,318</td>
</tr>
<tr>
<td>Grand Total</td>
<td>$2,566,008,947</td>
</tr>
</tbody>
</table>
Solutions to the Obesity Epidemic

• Must be comprehensive
• Multi-faceted
• Use evidenced-based practices
• Address all populations and ages
• Consistent long term commitment
Youth

- **Childcare**: policy and environmental change for pre-school age.
  - State level policy change
  - HMP reaching this audience at local level
- **BMI data collection**. Voluntary for now – will try to supplement with school health report card for parents – *parents are in denial!*
  - Arkansas model
Youth

• **School** - Transform food environment
  - Chapter 51 – soda out of schools (except for teachers!)
  - 2007: no advertising junk food on school grounds
  - IOM nutrition standards – get fast food out of school
  - Farm to school to educate and feed healthy foods – stakeholder group efforts
Youth

• **Schools** - Increase PA and PE.
• Informal policy change re: PA in class (Take Time)
• **PE4ME** major initiative: adopt national PA and PE recommendations:
  • 30 mins/day,
  • 150mins/wk K-8
  – $9.5-18.3 million for expanded PE
  • Need 220 to 448 new PE teachers
Youth

- PE4ME other recommendations
  - $5 million for obesity and chronic disease fund (established).
    - Media campaigns
    - Additional interventions
    - Help Line for weight loss
    - Statewide coverage re: Cooperative Extension Nutrition Associates (14)
Youth

• PE4ME other recommendations
  – $3 million for school health coordinators (one for each school district)
    • Champions of wellness teams
    • Introduce PAN initiatives
    • Empower youth
• School Wellness Policies
Youth

- **Health Care**
  - MYOC/AAP recommendations for Docs
  - 5-2-1-0 approach to healthy behaviors rather than diet or body image approach.
  - MaineHealth and other healthcare orgs adopting clinical guidelines
Adults

• Menu labeling at chain restaurants. Major impact!

• Low SES population. Environmental Change Project at DHHS and WIC offices. Emotional messaging.

• Active Communities and built environment
  – Zoning changes
  – Transportation changes
  – Bike/ped projects
Healthy Maine Partnerships

• Maine is unique – tobacco settlement dollars spent on public health
• 8 public health regions, 28 Healthy Maine Partnerships/ School Health Coordinators
• implementing PAN-HW Plan at local level
• Last 10 years - $6.5 million/year on PAN and tobacco programmatic work at local level.
• This continues in next 5 year grant period.
Adults

• Healthy Maine partnerships – community, worksite, health care
  – New objectives in new RFP
• Worksite
  – HMP Worksite Assessment tool for small business
  – Maine-Harvard Prevention Research Center focus on medium to larger worksites
MAPPS (handout)

Communities Putting Prevention to Work

• Media – Access – Point of purchase/promotion – Price – Social Support & Services

• Bulleted items are individual interventions, most of which are policy and environmental change in schools, communities (including worksites and businesses, health care etc.)