The Role of Policy, Systems and Environmental Change in Childhood Obesity Prevention

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Health in All Policies
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Overview

• National and International Obesity Epidemic

• Childhood Obesity Nationally and Chicago Example

• Contributing Factors

• Solutions: Policy, Systems and Environmental Change Approaches

• Example Strategies
How significant is the problem?

Rates are at an all-time, astronomical high!
Obesity Trends* Among U.S. Adults
(*BMI ≥30, or about 30 lbs. overweight for 5’4” person)
Trends in Childhood Overweight Worldwide (selected)

Thanks to Youfa Wang, PhD
National Trends in Childhood Obesity

### Ranking States Percentage of Overweight and Obese 10- to 17-year-olds

<table>
<thead>
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<th>Rank</th>
<th>State</th>
<th>Percent</th>
<th>Rank</th>
<th>State</th>
<th>Percent</th>
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<td>California</td>
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<td>New York</td>
<td>32.9</td>
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* IL ranked 4th in obesity alone

Disparities Abound – Chicago Example

Why do we care?

It’s not how we look, it’s quality of life and how we feel!
• Coronary Artery Disease
• Cerebral Vascular Disease
• Hypertension
• Liver Disease
• Arthritis
• Cancers
• Asthma
• Depression
• Sleep Disorders
Health Problems in Children Associated with Obesity

- **Dermatologic**: Skin irritation; acanthosis nigricans
- **Cardiorespiratory**: ↑ BP, lipids; sleep apnea, asthma
- **Endocrine**: Advance bone age, premature puberty; insulin resistance/diabetes, metabolic syndrome
- **Orthopedic**: Blount’s disease, SCFE, others
- **GI**: Fatty Liver
- **Psychological**: Teasing, Depression
And there are COSTS!

• Over 25% of total US health care costs
• $72 billion for overweight and $198 billion for obesity (Society of Actuaries, 2009)
• Direct and indirect cost of obesity as high as $147 billion annually (CDC and RTI, 2009)
• Insurance providers pay $1,021 to $1,723 more for obese beneficiaries (NIH, 2010)
• National cost of childhood obesity: $11 billion for private insurance, $3 billion for Medicaid (Thomson Medstat, 2006)
What IS Childhood Obesity?

Definitions and Explanations
The Heart of the Problem

- Energy In: Calories consumed in food
- Energy Out: Calories spent
  - Metabolism, Activity, Growth
- Balance Matters:
  - If \( \text{In} = \text{Out} \), weight is stable
  - If \( \text{Out} > \text{In} \), weight falls
  - If \( \text{In} > \text{Out} \), weight rises
Excessive Caloric Intake

• Foods not consumed in large amounts in human history:
  – Some high fat foods (e.g. fast foods)
  – All sugary foods (e.g. soft drinks)

• New(ish) locations and patterns of eating
  – Snacking/grazing rather than meals at home
  – Eating as time filler/available entertainment
  – Frequent meals out (less portion control)
  – Portion size changes
Example: Coke Sizes Over the Years

6.5 oz. in the 1960s; 12oz, 20oz., 2L in the 1970s, “Mini-Coke” – 7.5 oz. in 2009
Example: Hershey Bar

- Debuted in 1908 at 0.6 ounces; today, its smallest "single" bar size is twice as big, and it also comes in sizes up to eight times as large -- and that's outside of a movie theater
We are what we eat…

Four of the families pictured with a week’s worth of food in the book *Hungry Planet*. Clockwise from top left: the Mendoza of Todos Santos Cuchumatán, Guatemala; the Cavens of American Canyon, California; the Natomos of Kouakourou, Mali; and the Dong of Beijing, China.

Sierra Club Magazine December 2006
Inadequate Caloric Expenditure

- Labor saving devices of all kinds
- More driving/less walking and biking
- Computers, TV, and videogames
- Staying indoors to avoid dangers
Examples: Time (and motion!) saving devices
Is this our future??
Want to take a walk?
Addressing Childhood Obesity

An ecologic approach is required

Individual → Family → Community → Society
Addressing Childhood Obesity

An ecologic approach is required
Example Initiatives and Projects - Individual

• Programs and services
  – Healthy food distribution (e.g., Nourish for Knowledge)
  – Nutrition education
  – After school physical activity programs

• Peer education and support groups
  – Helping youth through their social connections to support each other in making healthy choices

• Information
  – Handouts, pamphlets, brochures
  – Mass media (TV, radio, etc.)
Addressing Childhood Obesity

An ecologic approach is required

Individual  Family  Community  Society
Example Initiatives and Projects - Family

- Community-based food distribution
  - Emergency food system
  - Public assistance to families

- Expanding family resources
  - Income generation
  - Financial management
    - Saving and budgeting

- Changing family norms
  - Programs involving youth and adults together
Addressing Childhood Obesity

An ecologic approach is required

Individual > Family > Community > Society
Addressing Childhood Obesity

An ecologic approach is required

- Individual
- Family
- Community
- Society
Making healthy options the default

or

“if you build it, they will come” (sort of)
Who’s doing it?

• First Lady Michelle Obama’s “Let’s Move” Initiative
  – Progress with Wal-Mart and food companies

• The U.S. Centers for Disease Control and Prevention
  – Communities Putting Prevention to Work
    • MAPPS Strategies

• The Robert Wood Johnson Foundation
  – Healthy Kids, Healthy Communities
  – Galvanizing Faith Communities
  – Communities Creating Healthy Environments
  – …and more!
CLOCC Policy Agenda for Childhood Obesity Prevention in 2011 and Beyond (selected)

- Support City and/or State Initiatives to Forge Collaboration Between Schools and Health Agencies to Transfer Data for Public Use
- Support Novel Models for Healthy Food Retail
- Ensure Implementation of the IL Fresh Food Fund to Incentivize Grocers to Provide Healthy Food
- Create Broad Multi-Sector Community Awareness on Breastfeeding Rights and Resources
- Expand the Number of “Baby-Friendly” Hospitals in Chicago and IL Following World Health Organization (WHO) Model
- Higher Reimbursement for Child and Adult Care Food Program and Higher Nutrition Standards in Federally-Funded Food Programs.
CLOCC Policy Agenda for Childhood Obesity Prevention in 2011 and Beyond (selected)

- Limit Marketing of Unhealthy Foods to Children
- Consider the Merits of an Excise Tax on Sugar-Sweetened Beverages at Various Levels of Government; Revenue to be Put Towards Surveillance, School and Community Prevention Programs, Implementation and Monitoring of Policy.
- Develop and Implement Ways to Increase Safety and Funding Equity in Safe Routes to School (SRTS)
- Implement City, County, and State Complete Streets Policies
- Ensure Active Transportation Inclusion in Relevant Federal Legislation (i.e. Energy, Transportation) Consistent with National Transportation Objectives.
- Get Physical Education (P.E.) Back Into Schools Every Day
- Higher Reimbursement for Clinical Care and Physical Activity Programs for Children/Families with Public Health Care Insurance.