Obesity Prevention and Reduction in Michigan: Community and Systemic Strategies

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Social-ecological model

- Communities
- Worksites
- Health Care
- Schools and Child Care
- Home

- Demographic Factors (e.g., age, sex, SES, race/ethnicity)
- Psychosocial Factors
- Gene-Environment Interactions
- Other Factors

- Social Norms and Values

- Sectors of Influence

- Behavioral Settings

- Individual Factors

- Food & Beverage Intake
- Physical Activity

- Energy Intake
- Energy Expenditure

- Energy Balance

- Government
- Public Health
- Health Care
- Agriculture
- Education
- Media
- Land Use and Transportation
- Communities
- Foundations
- Industry
  - Food
  - Beverage
  - Retail
  - Leisure and Recreation
  - Entertainment

Four Basic Notions in Reducing Obesity

- There is no magic bullet
- There is no zero cost ‘solution’
- Need massive changes in the food and physical environment
- Need a combination of incentives and disincentives
Increase fruit and vegetable intake within a context of healthy weight development/maintenance

Food Environment → ‘Food Underserved Areas’ → Michigan Context

Access

Detroit FRESH

Farmers Markets

Incentive Programs

Consumption Changes

Weight Impact

Double Up Bucks

Hoophouse Forgivable Loans

Michigan Grown

Economic Impact
Increase fruit and vegetable intake within a context of healthy weight development/maintenance

Food Environment → ‘Food Underserved Areas’ → Michigan Context

Access
Food Underserved/Malserved Areas

Detroit full service grocery stores: 2.7 per 10,000

Detroit Food Balance Scores
Comparing access to grocery stores and “fringe food” outlets

Mari Gallagher Research & Consulting Group, 2007
City of Detroit: Neighborhood Market DrillDown 2010
Increase fruit and vegetable intake within a context of healthy weight development/maintenance
Grocery Store Access

• Looked at relationship of supermarket in census track and fruit/vegetable intake

• Ave servings F/V per day – 4 to 4.5

• Percent meeting recommendations – 8.2 to 14.8%

• For Whites –
  – 11% increase in F/V intake with at least one supermarket

• For Blacks –
  – Increase F/V intake with one supermarket in census track
  – 32% increase for each additional
  – Fat consumption recommendations more likely to be met

• Little effect of education, income

FRUITS + VEGETABLES
SOLD HERE

This store is a member of:

Detroit FRESH

Detroit FRESH, the Healthy Corner Store Project, is led by SEED Wayne in partnership with Capuchin Soup Kitchen, Eastern Market Corporation, and MOSES, to increase access to fresh fruits and vegetables in Detroit’s neighborhoods. Detroit FRESH is made possible by generous support from the Eth Family Foundation.

This store has in stock, on a regular basis, fresh fruits and vegetables. Please let the manager know if you would like to purchase particular fruits and vegetables from the store.

For more information, browse: www.clas.wayne.edu/seedwayne

Contact Kami Pothukuchi, Director, SEED Wayne: 313-577-4296

Picsures from Dr. Kami Pothukuchi, WSU, information at: www.clas.wayne.edu/seedwayne/
Michigan Farmers Markets Accepting Bridge Cards

Slide from Dru Montri, MIFMA; picture courtesy of MIFMA and Michigan Farmers Market Food Assistance Partnership
SNAP Benefits Redeemed at Michigan Farmers Markets

138% Increase

Number of Farmers Markets Accepting Bridge Cards

Amount of SNAP Benefits Redeemed at Farmers Markets

- 2007: 11, $15,832.95
- 2008: 24, $150,644.10
- 2009: 30, $297,077.88
- 2010: 49, $705,969

Slide from Dru Montri, MIFMA; picture courtesy of MIFMA and Michigan Farmers Market Food Assistance Partnership
Increase fruit and vegetable intake within a context of healthy weight development/maintenance
Produce Incentives

- $10 per week/6 months
- Farmers Market and supermarket intervention
- Largely Hispanic population in Los Angeles

FIGURE 1—Average consumption at baseline, end of intervention, and 6 months after intervention, by treatment group, of (a) fruits and vegetables together, (b) fruits alone, and (c) vegetables alone: Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Los Angeles, Calif, 2001.

Hoophouse Forgivable Loans
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Forgivable Loan Program

• Partnership of C.S. Mott Group at MSU and Michigan Farmers Market Association
• Four farmers markets in 2011:
  – Northwest Detroit
  – Lapeer
  – Ypsilanti
  – Saginaw
• Loans for hoophouse construction; payback in produce to limited resource community members of 5 years; in part plan to work through Head Start
Increase fruit and vegetable intake within a context of healthy weight development/maintenance

- Food Environment
  - Access
    - Consumption Changes
      - Weight Impact
        - Michigan Grown
        - Economic Impact
WHAT IF... Michigan’s residents bridged the “Public Health Gap”?

- Shift from current consumption to public health recommendations
- Eating more of what people currently eat
- Get it from MI when available fresh with typical technology
- Need approximately 37,000 more acres of production

$211 Million increased net income; 1,800 off-farm jobs

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Consumption Changes → Weight Impact

Weight Impact → Economic Impact

Double Up Bucks

Hoophouse Forgivable Loans

Michigan Grown
Is There a Role for Government?

Enable the Best in people
Mitigate the Worst in people
Four Basic Principles of Moving Forward

- There is no magic bullet
- There is no zero cost solution
- Need massive changes in the food and physical environment
- Need a combination of incentives and disincentives
Systems Modeling of Top Cost-Saving Strategies

- Unhealthy food and beverage tax (10%)
- Reduction of advertising of junk food and beverages to children
- School-based education programs to reduce television viewing
- Multi-faceted school-based program including nutrition and physical activity
- School-based education program to reduce sugar-sweetened drink consumption

Role of Person Responsibility

• Expectations that environments are conducive to the ‘best choices’ being the easiest choices
  – Easy defaults

• Expectation that people then make the best choices most of the time
  – E.g. of 401K plans
  – E.g. of purchase of healthy options in vending machines
The End

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www.michiganfood.org