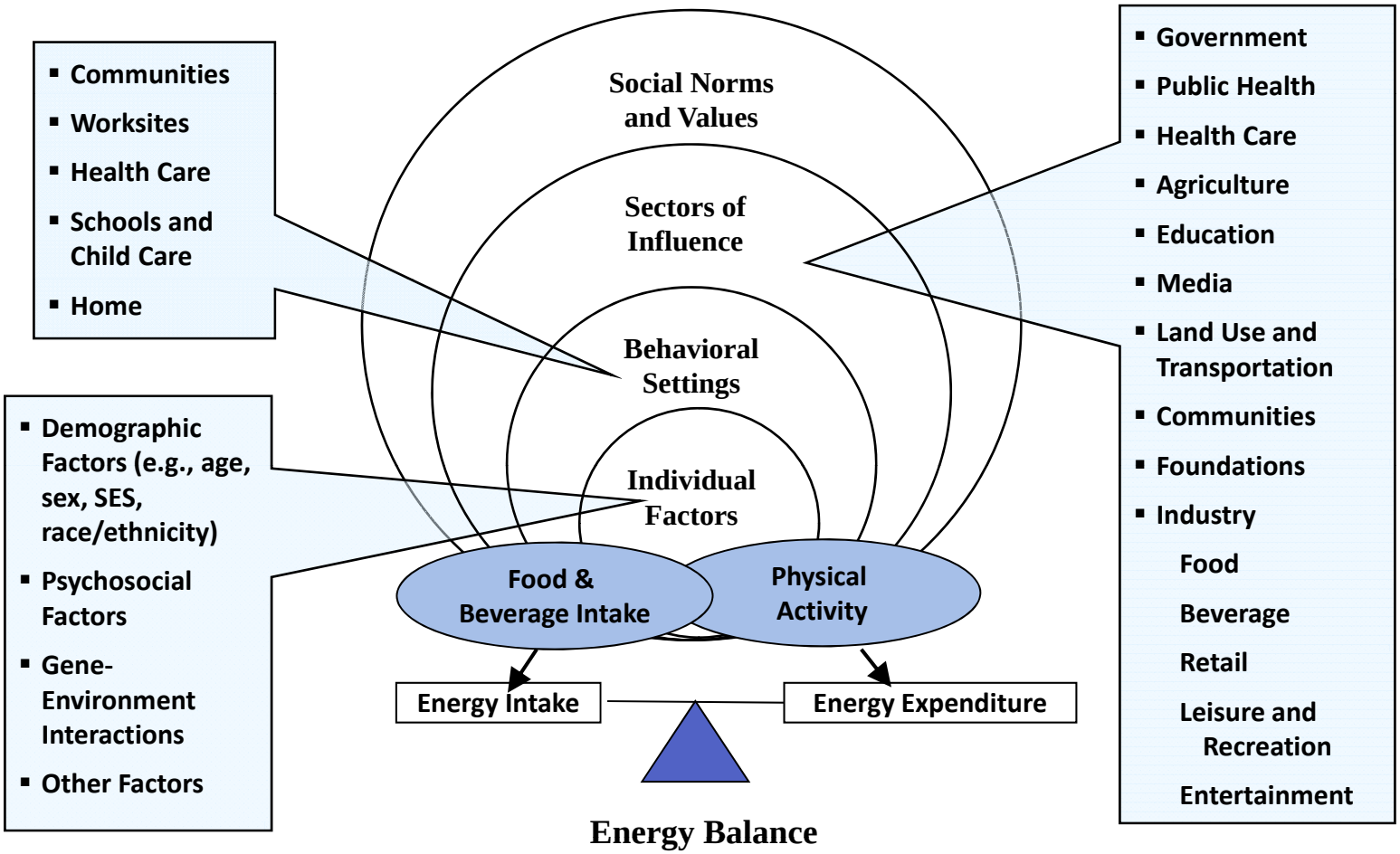
Obesity Prevention and Reduction in Michigan: Community and Systemic Strategies

Michael W. Hamm
C.S. Mott Professor of Sustainable Agriculture
Michigan State University

Michigan
GOOD FOOD
Equity • Sustainability • Thriving Economies

Social-ecological model



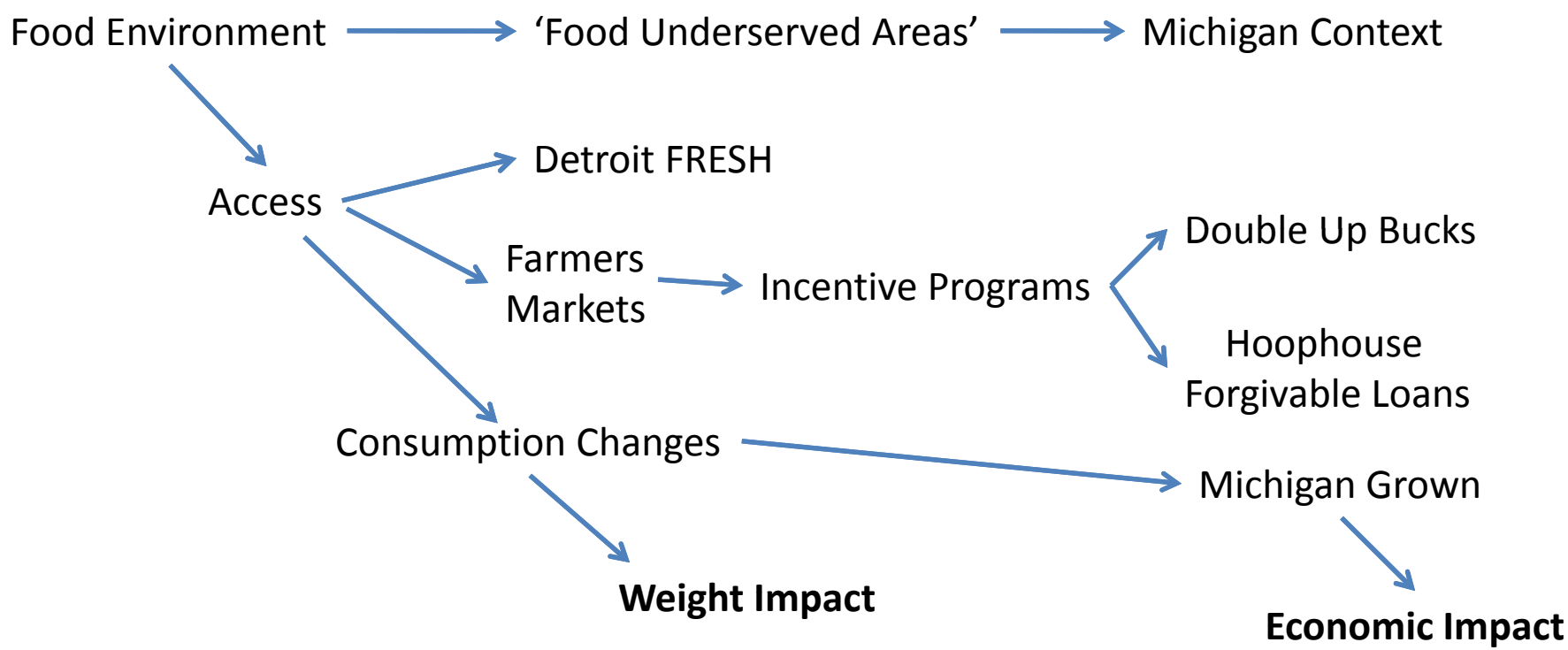
IOM. 2007. Progress in Preventing Childhood Obesity: How Do We Measure Up? Washington, DC: The National Academies

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

Carry One Thread Through Michigan

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

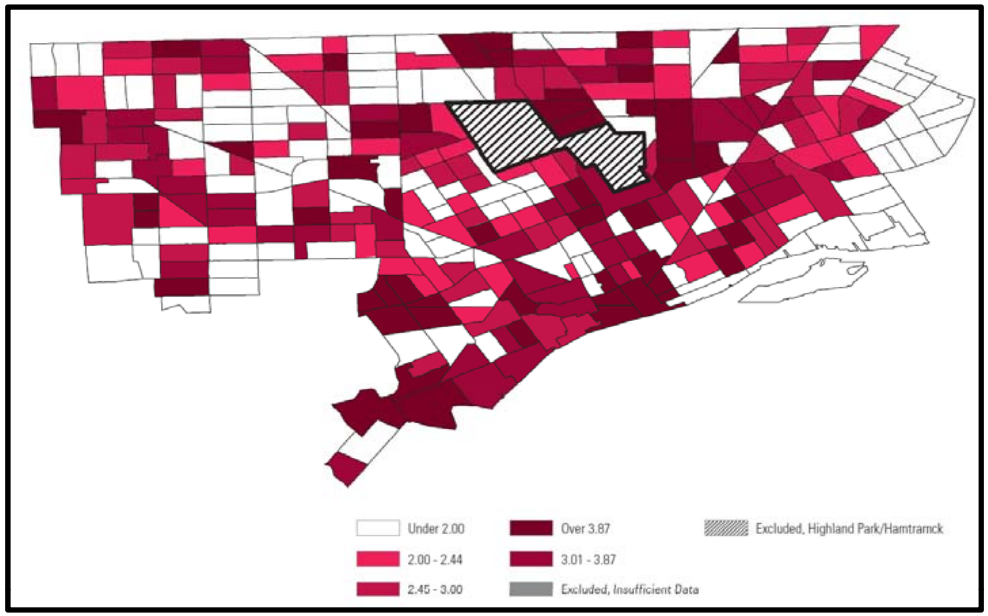


Increase fruit and vegetable intake within a context of healthy weight development/maintenance

Food Environment → 'Food Underserved Areas' → Michigan Context

↘ Access

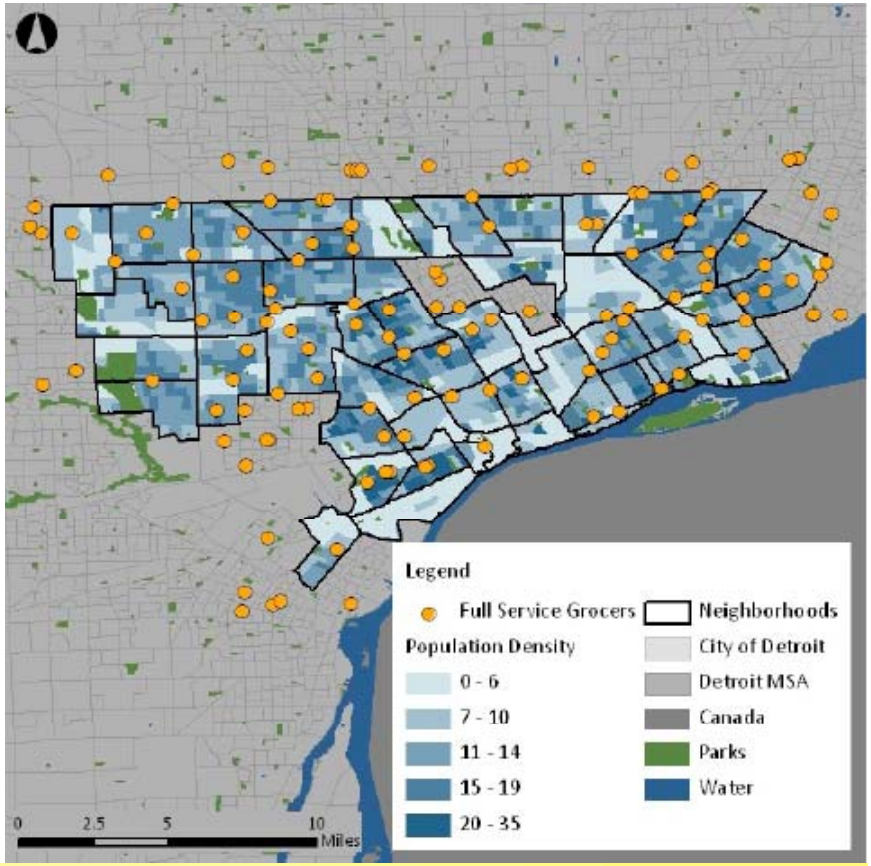
Food Underserved/Malserved Areas



Detroit Food Balance Scores

Comparing access to grocery stores and "fringe food" outlets

Detroit full service grocery stores:
2.7 per 10,000



Mari Gallagher Research & Consulting Group, 2007

City of Detroit: Neighborhood Market DrillDown 2010

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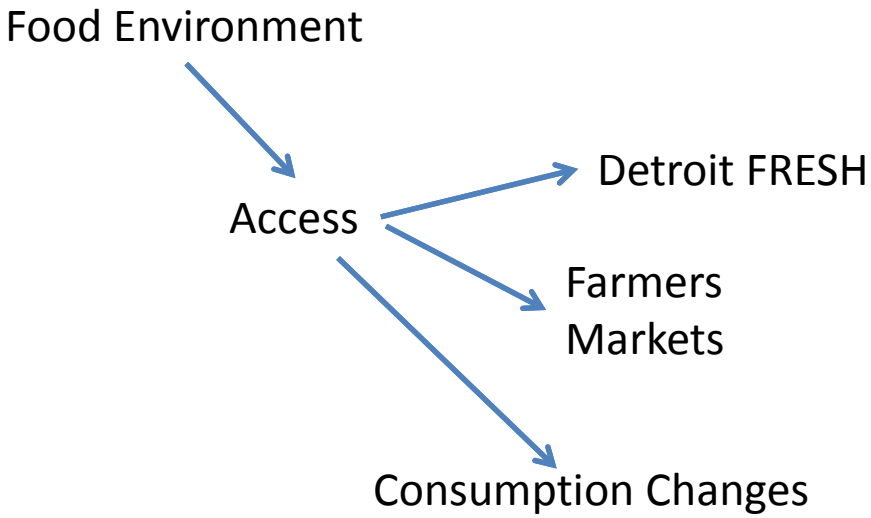


Grocery Store Access

- 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

K. Morland, S. Wing, and A. D. Roux. Am J Public Health. 2002;92:1761–1767

FRESH

FRUITS + VEGETABLES SOLD HERE

THIS STORE IS A MEMBER OF:

DETROIT FRESH
FRESH FOOD IN DETROIT'S CORNER STORES

This store has on 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/DETROITFRESH

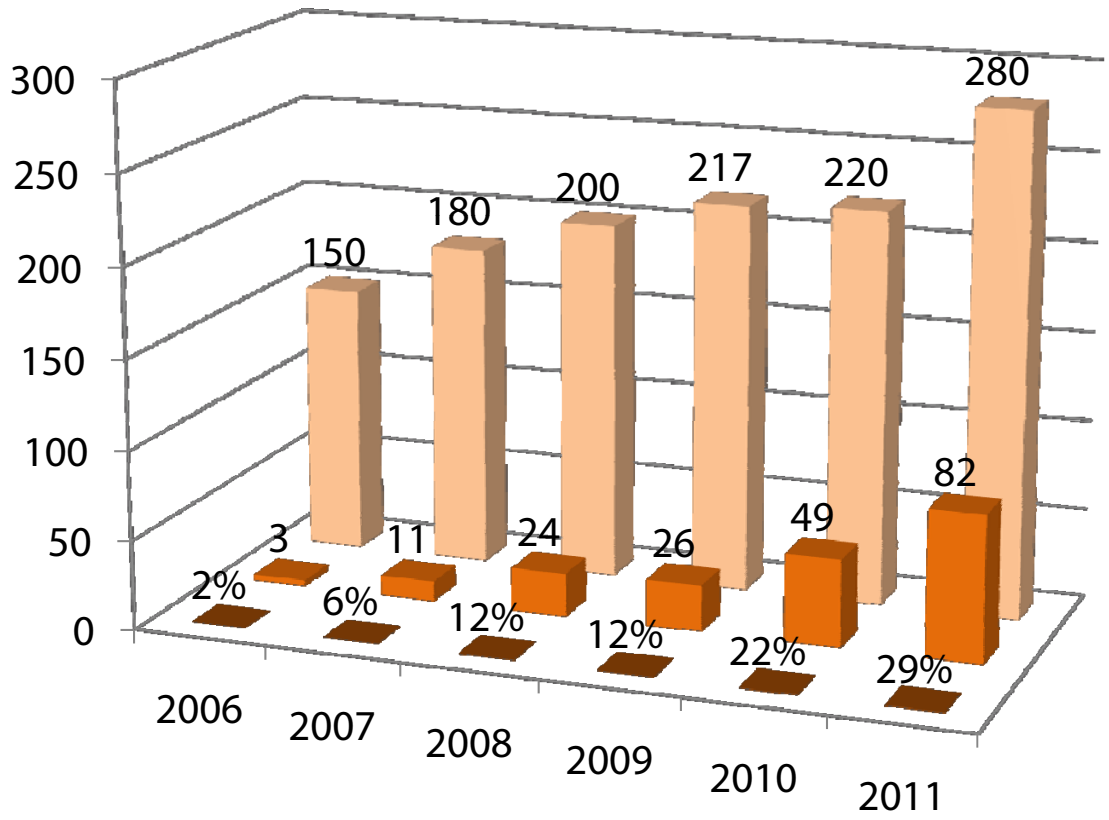
CONTACT KAMI POTHUKUCHI,
DIRECTOR, SEED WAYNE: 313-577-4296

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 Erb Family Foundation.

SEED Wayne · Eastern Market Corporation · MOSES

Pictures from Dr. Kami Pothukuchi, WSU, information at: www.clas.wayne.edu/seedwayne/

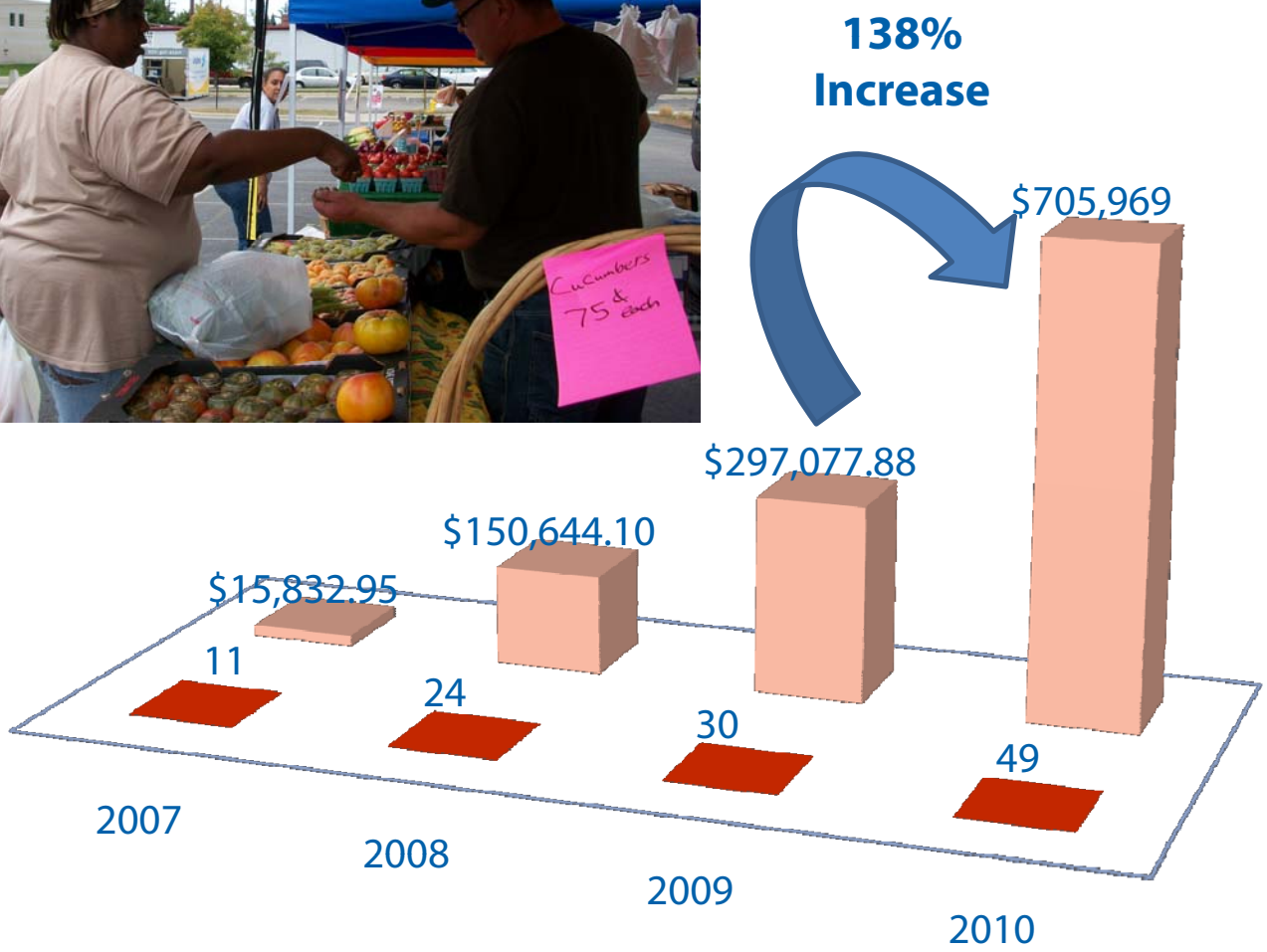
Michigan Farmers Markets Accepting Bridge Cards



- Percent of Farmers Markets Accepting Bridge Cards
- Number of Farmers Markets Accepting Bridge Cards
- Number of Farmers Markets

Slide from Dru Montri, MIFMA; picture courtesy of MIFMA and Michigan Farmers Market Food Assistance Partnership

SNAP Benefits Redeemed at Michigan Farmers Markets



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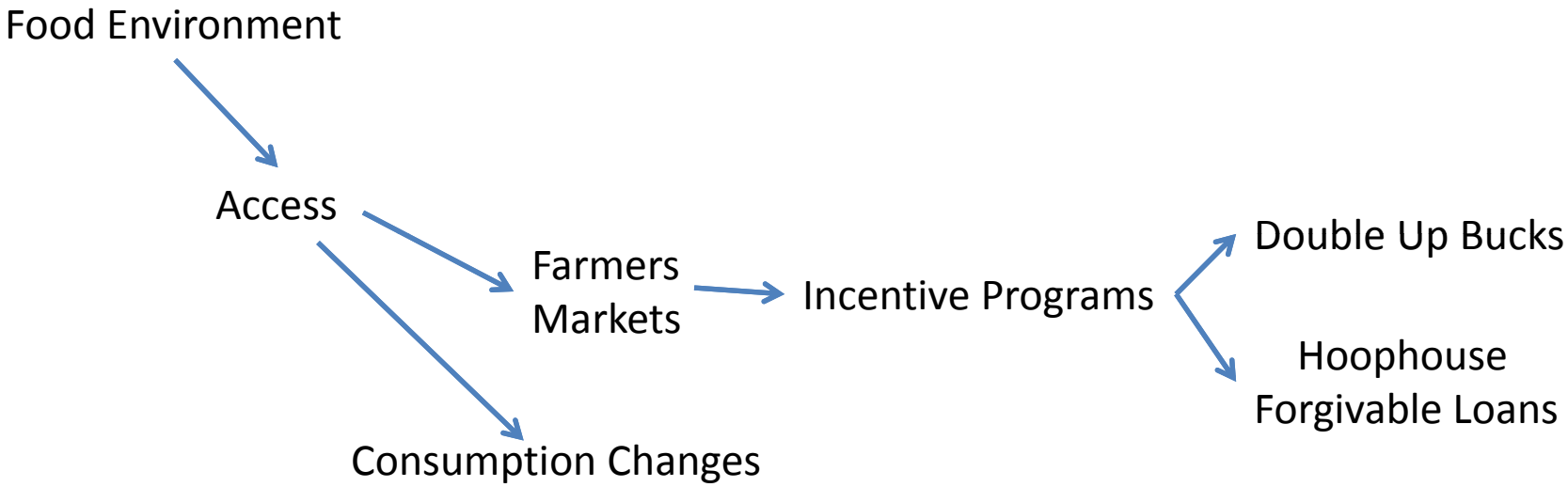


Produce Incentives

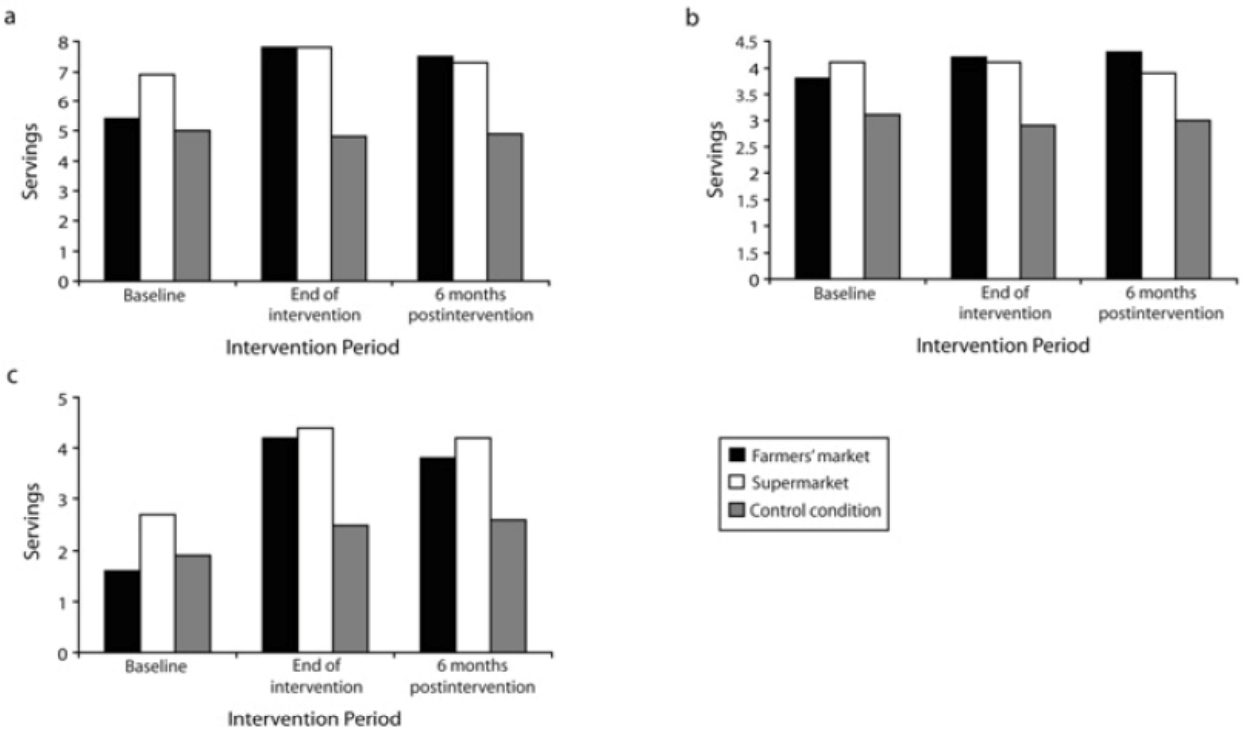
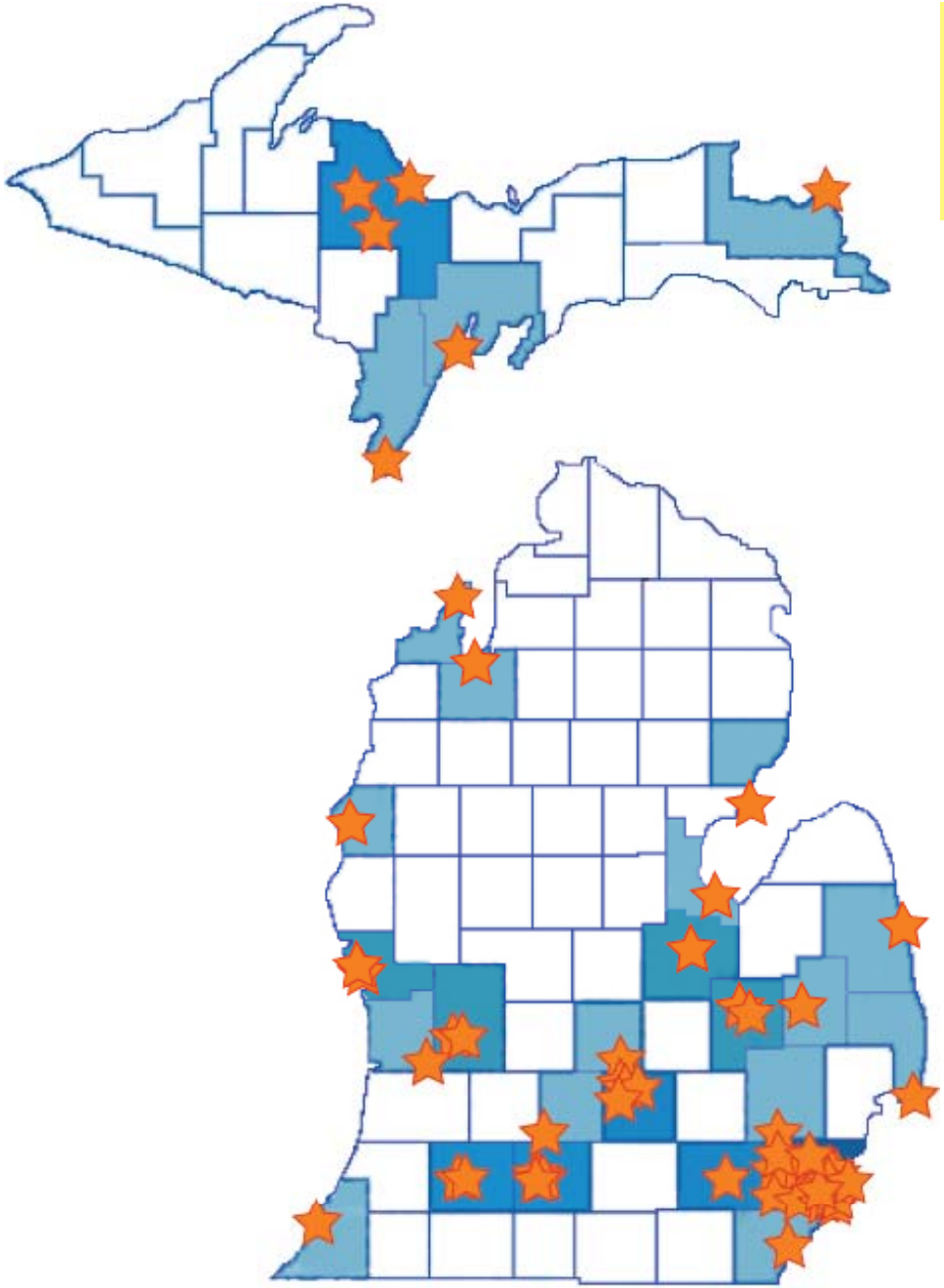


FIGURE 1—Average consumption at baseline, end of intervention, and 6 months after intervention, by treatment group, of (a) fruits and vegetables together, (b) fruits alone, and (c) vegetables alone: Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Los Angeles, Calif, 2001.

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

D. R. Herman, G. G. Harrison, A. A. Afifi, and E. Jenks Am J Public Health. 2008;98:98–105

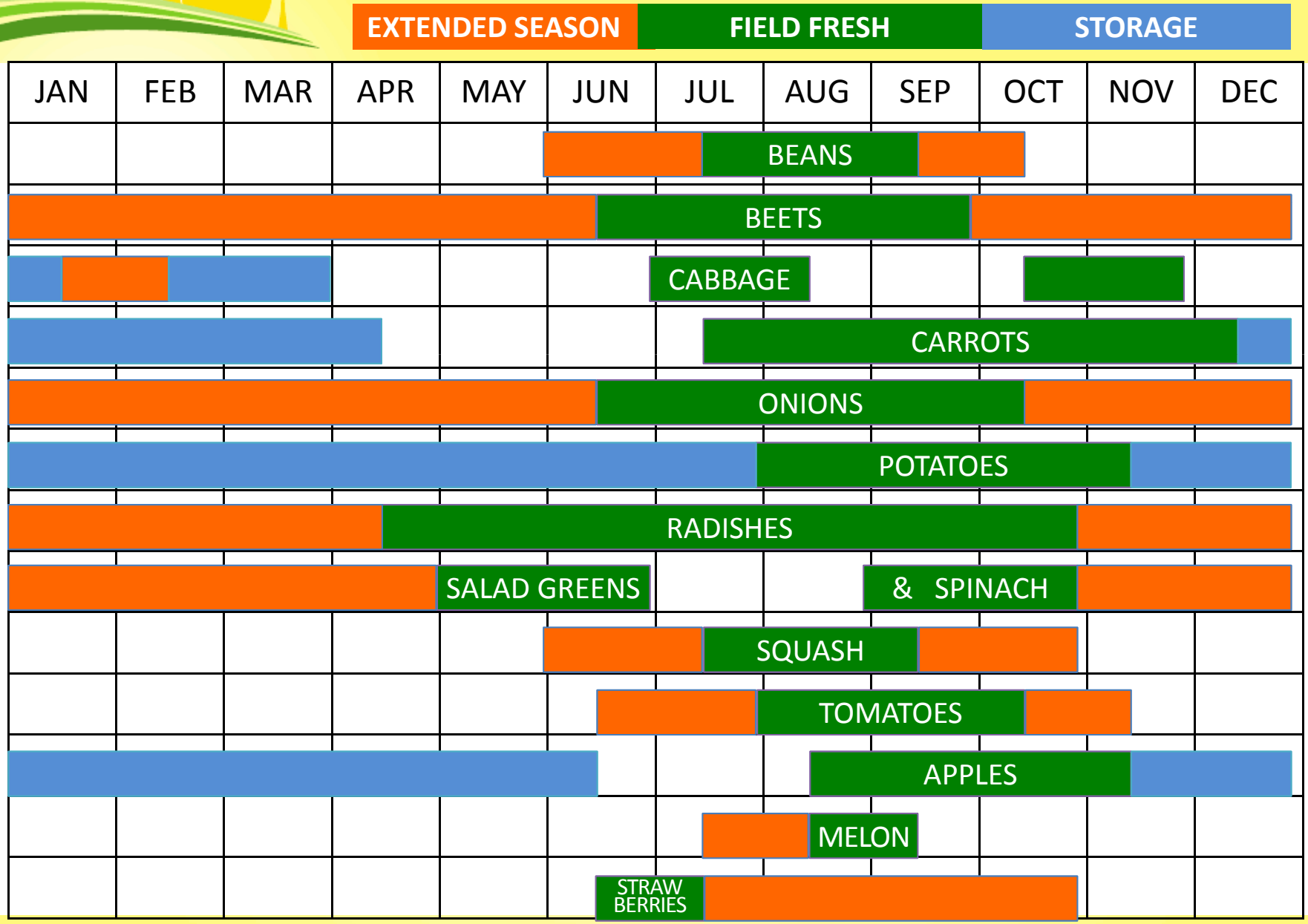


>40 with Double Up Bucks Program

Map prepared by: Michigan Farmers Markets Food Assistance Partnership, www.mifma.org <http://www.mifma.org>

Hoophouse Forgivable Loans

We Are Seasonally Challenged - Michigan Produce



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

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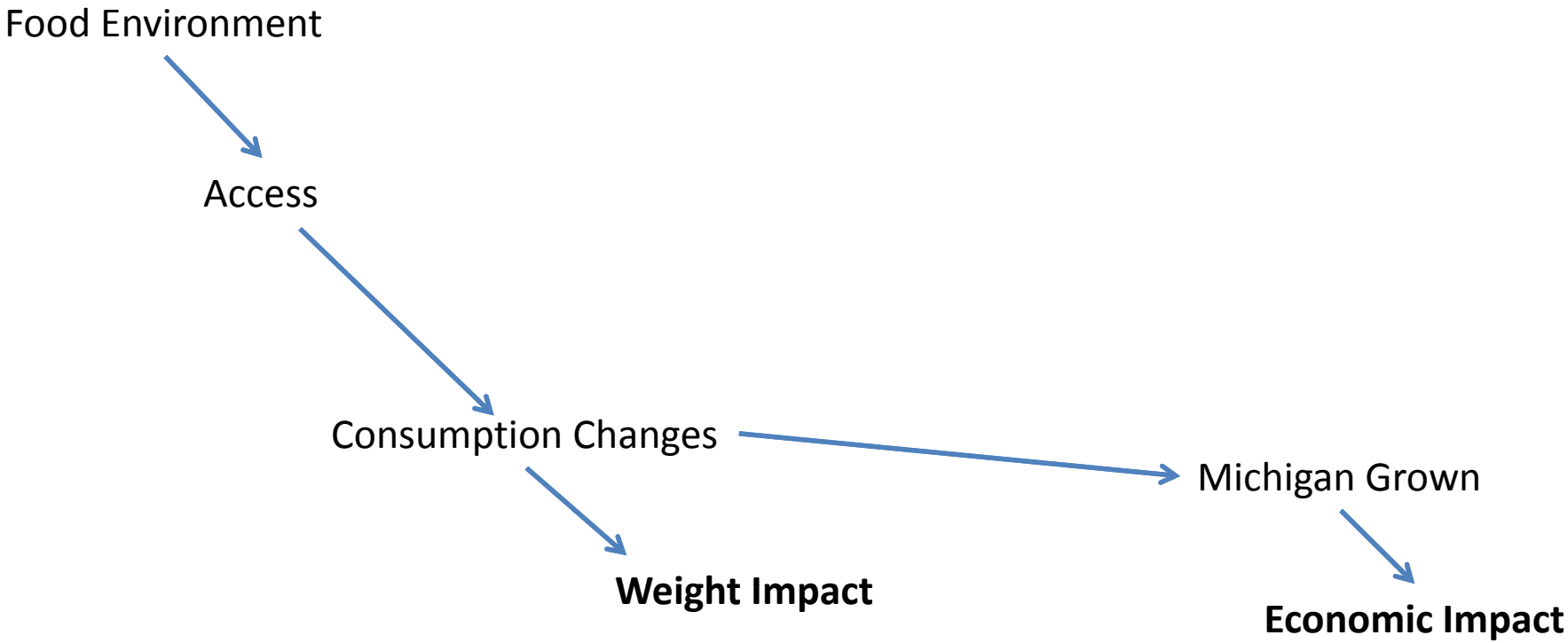

Economic Impact Example

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

From: Conner, D.S., Knudson, W., Peterson, H.C., Hamm, M.W. *Journal of Hunger & Environmental Nutrition*, 2008.

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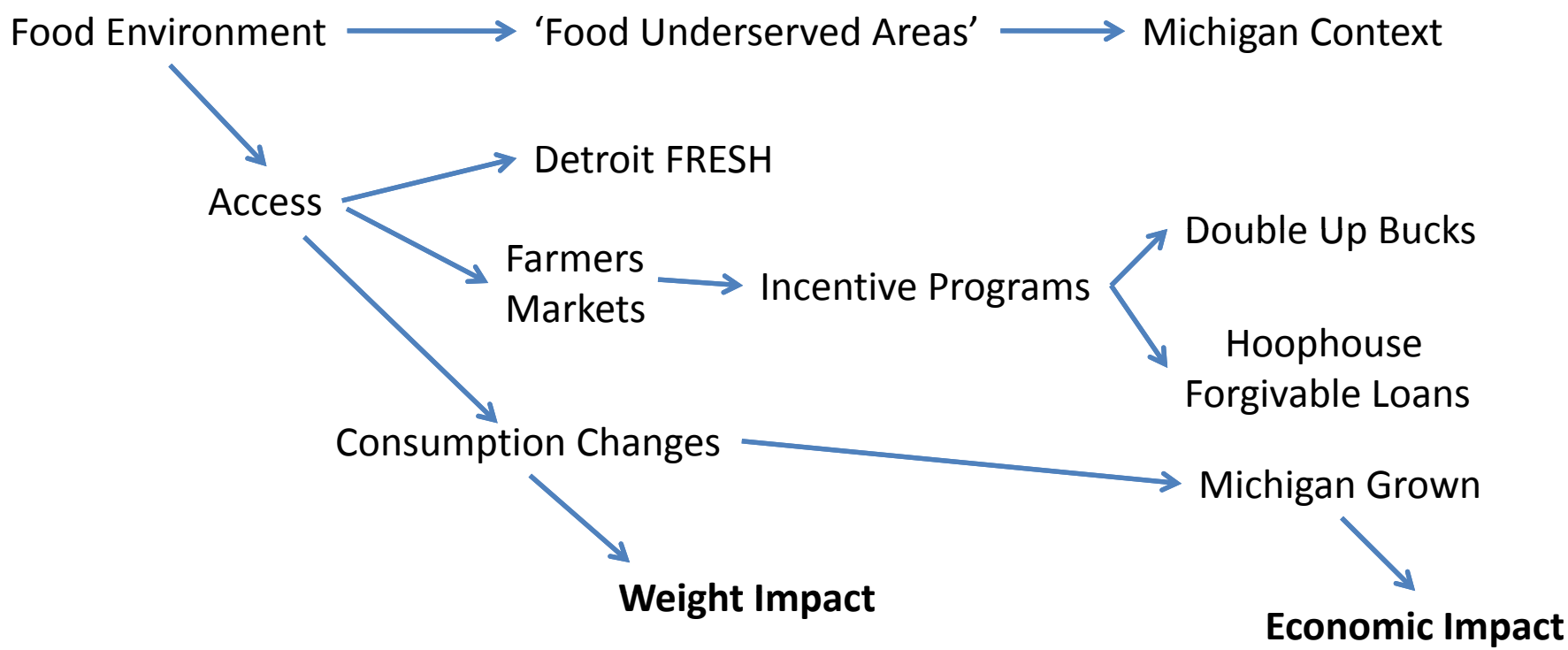


Is There a Role for Government?

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

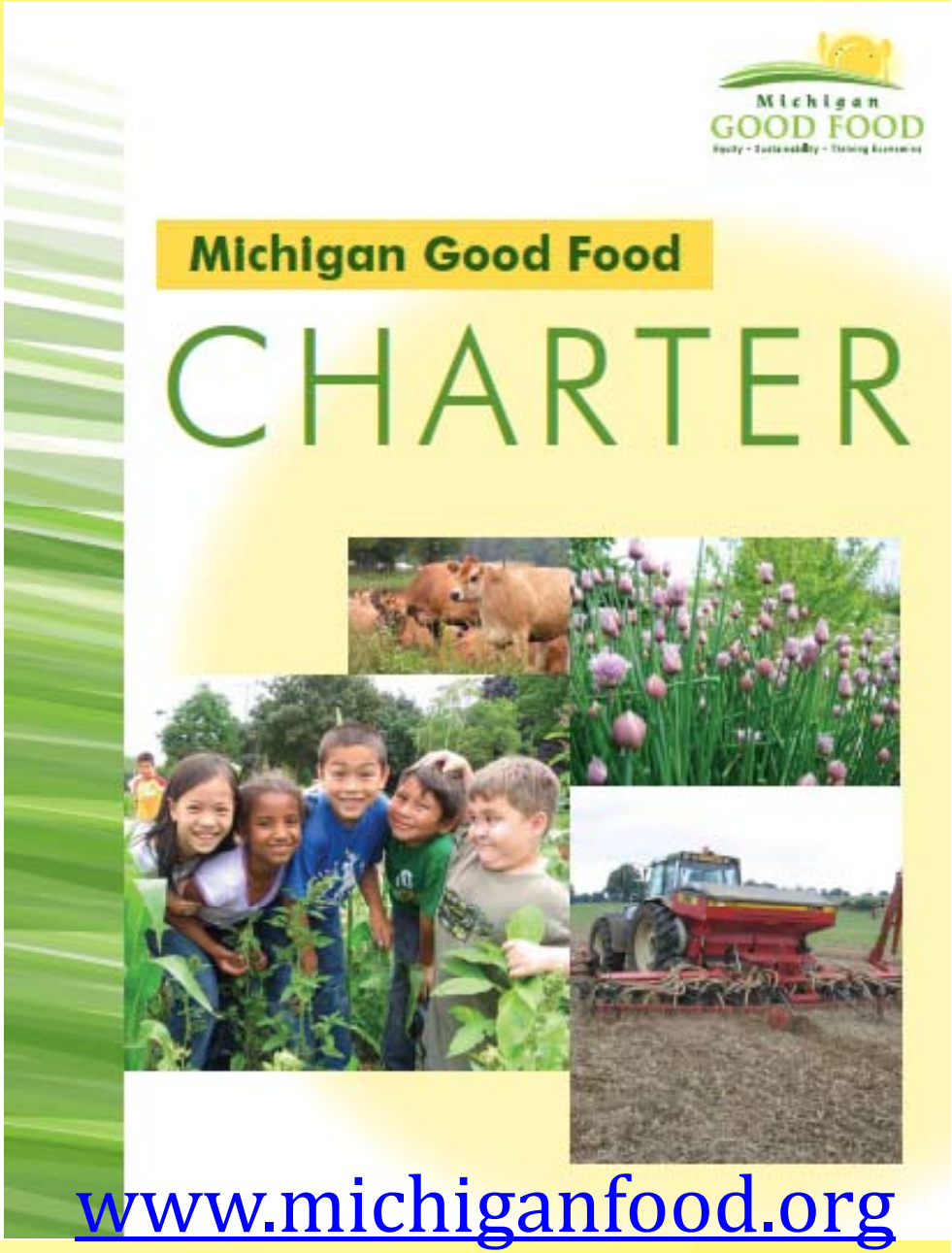
- Unhealthy food and beverage tax (10%)
- Reduction of advertising of junk food and beverages to children
- School-based education programs to reduce television viewing
- Multi-faceted school-based program including nutrition and physical activity
- School-based education program to reduce sugar-sweetened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

S.L.Gortmaker, B.A. Swinburn, R. Carter, M.L. Moodie D. Levy (2011) Lancet 378: 838-47.

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



the c.s. mott group
for Sustainable Food Systems at MSU

mhamm@msu.edu
517-432-1611

www.michiganfood.org