



# Changing Behavior Effectively

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## Creating Programs & Interventions that Work

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Wisconsin Nutrition & Physical Activity Program



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**What We Are Doing....**

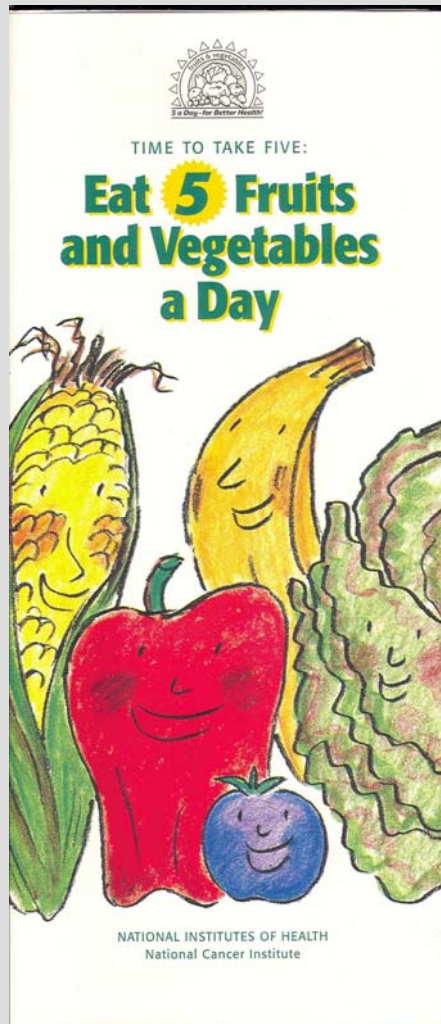


# Existing State

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- Activities are mainly event-driven; not sustainable
- Activities are mainly individually-based
- Lack of awareness of evidence-based/best-practice strategies

# Brochures, Health Fairs, Etc.



-Great for changing knowledge

-Not as effective at changing attitudes, etc.



# Individual Change

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## 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



# Individual Change

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- 4.1 Million Wisconsin Adults
  - 2.46 million are Obese or Overweight
- 1.4 Million Kids
  - 350,000 are at risk for overweight or are overweight
- That is roughly 20,000 that each of us would need to work with/help!!!



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Where We Need  
To Go....



# Presentation Outline

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- Changing Behavior
  - Behavior Change Theories
- Group Activity
- Overview of Program Planning
- Example from the Field
  - Footprints to Health Intervention
- Getting Started





# Changing Behavior

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Creating Change at  
Multiple Levels




# Obesity Prevention Focus Areas

## CDC's Big 6

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- Physical Activity
- Fruits and Vegetables
- Sweetened Beverages
- Television Time
- Breastfeeding
- Portion Size



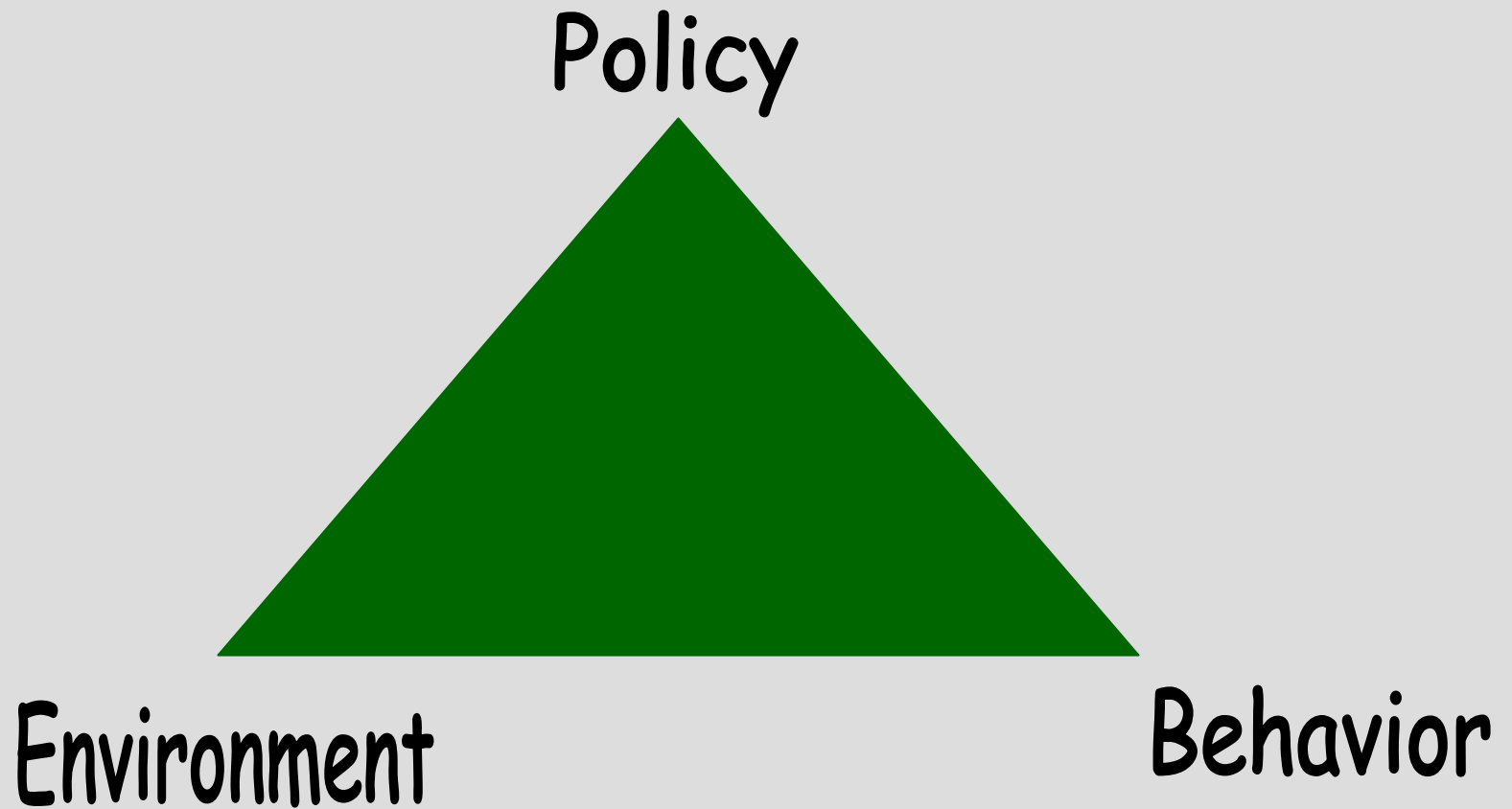
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**"It is unreasonable to expect that people will change their behavior easily when so many forces in the social, cultural, and physical environment conspire against such change"**

**-Institute of Medicine**

# Behavior Change Triad

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# Behavioral Level

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- **Individuals**
- **Involves:**
  - Knowledge
  - Attitudes/Beliefs
  - Skills
- **Tends to be resource intense**



# Environmental Level

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- **Group or Population**
- Involves change where people, work, live, play, & worship
  - Neighborhood
  - School
  - Worksite
  - Church
  - Community (Grocery Store/Restaurant)
- Greater reach; less resource intense

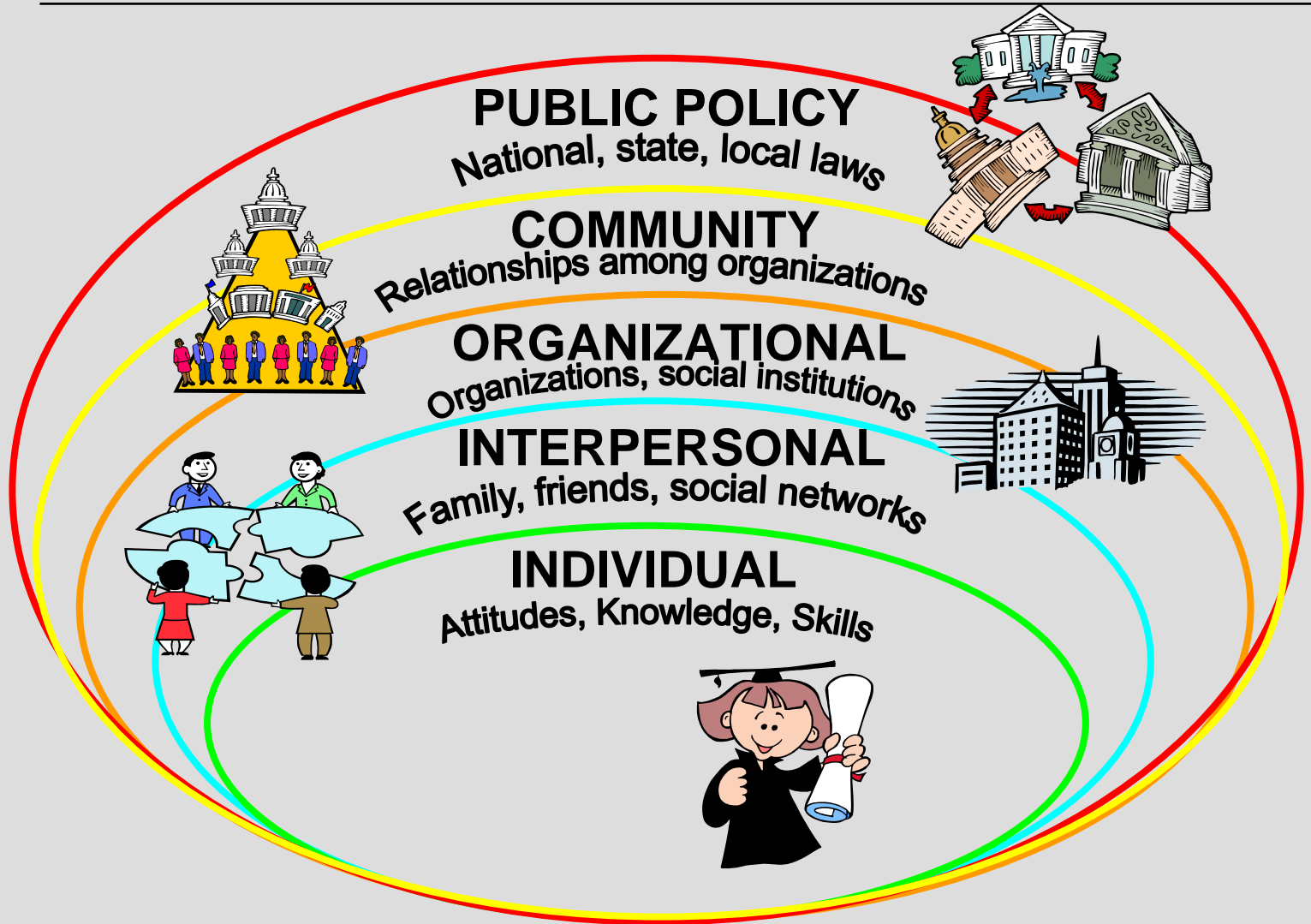


# Policy Change Strategies

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- **Group or Population**
- Rules that guide the activities of government or quasi-governmental organizations, and that provide authority for the allocation of resources
- Formal (legislated) or informal policy
- Greatest reach; less resource intense

# Social Ecological Model





# Levels of SEM

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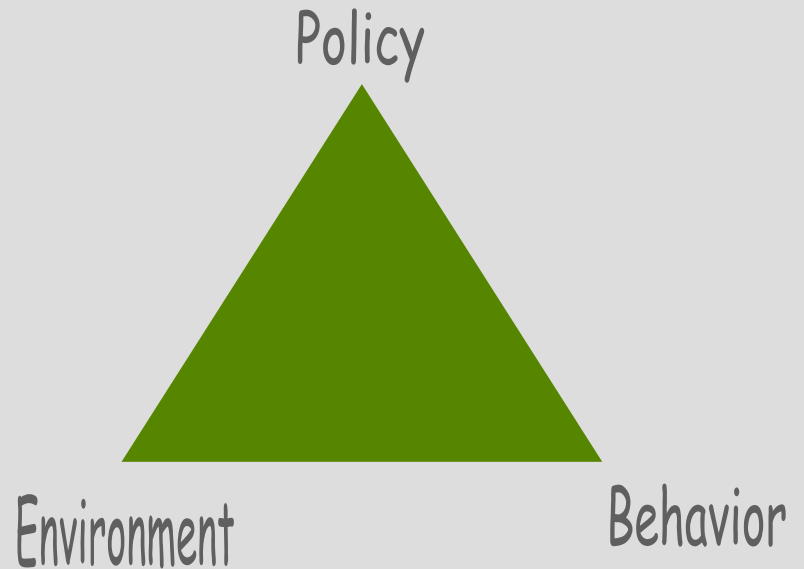
## Behavior

- Individual
- Interpersonal

## Environment

- Organizational
- Community

## Policy





# Group Activity

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## Health Outcome:

Increased fruit & vegetable consumption in adults

**Target Audience:** Working Adults

## Scenario:

Adults do not have time to prepare meals/snacks with F & V; lack food preparation and cooking skills.

**Settings:** Worksite, Community, Home

- 
- Help Employers create a healthy eating policy for foods served at meetings & conferences
  - Health insurance carrier has an incentive for owning a CSA share

Policy

Worksite-Nutrition

Environment

Behavior

- Work with CSAs to create a drop-off point at the worksite
- Work with restaurants near the worksite to have more fruit & vegetable entrees; allow substitutions

- Teach employees how to plan meals ahead; provide F & V recipes and tips for selecting & preparing



# Group Activity

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## Health Outcome:

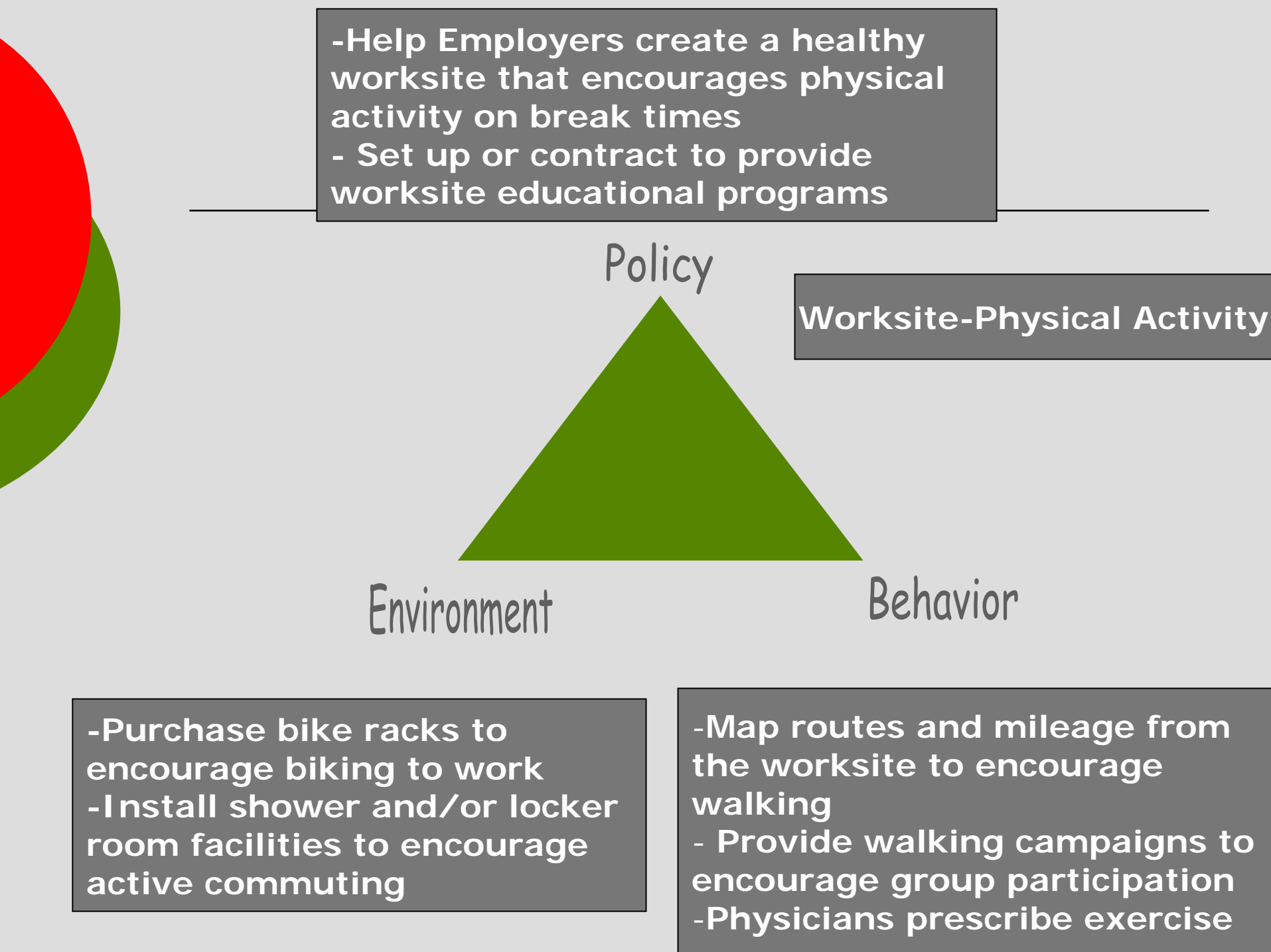
Increased physical activity in adults

**Target Audience:** Working Parents

## Scenario:

Parents/adults are not able to set aside time to be active. Only time to be active may be during their work day.

**Settings:** Worksite, Community, Healthcare



- Help Employers create a healthy worksite that encourages physical activity on break times
- Set up or contract to provide worksite educational programs

Policy

Worksite-Physical Activity

Environment

Behavior

- Purchase bike racks to encourage biking to work
- Install shower and/or locker room facilities to encourage active commuting

- Map routes and mileage from the worksite to encourage walking
- Provide walking campaigns to encourage group participation
- Physicians prescribe exercise



# Group Activity

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## Health Outcome:

Decreased Sweetened Beverages consumed by adolescents

**Target Audience:** Middle School Students

## Scenario:

The principal observes that students are consuming several ounces of regular soda/day; vending sales generate a profit

**Setting:** School



**-Policy supporting use of competitive pricing in school vending/a la carte sales; less nutritious foods to be priced higher**

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Policy

**School-Nutrition**

Environment

Behavior

**-Healthier alternative beverages are available in vending machines (including staff lounge) and on a la carte line**

**-Taste testing of healthier beverages in school cafeteria; peer-led activity**



# Other Theoretical Models

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- Social Cognitive Theory
- Social Learning Theory
- Health Belief Model
- Proceed/Precede Model





# Disclaimer:

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- You are about to receive a large volume of information
- Keep in mind that the Program Planning Process can be simplified given the extent of your resources
- This overview of the Program Planning Process is meant to provide you with a framework for creating effective overweight and obesity prevention programs in the future
- Please note that more in-depth trainings on this process will be offered in the future
- Please ask questions whenever they arise



# Overview of Program Planning

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A step-by-step approach



# Program Planning Steps

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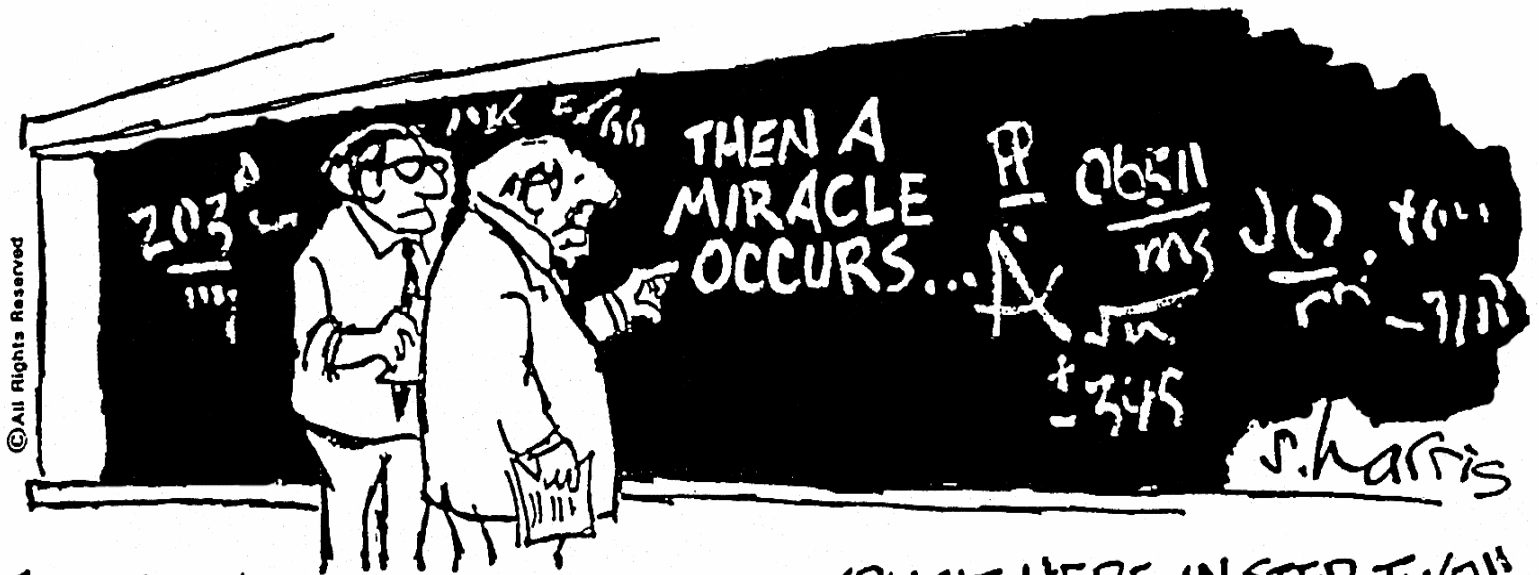
- Step 1: Select Health Outcome(s)
- Step 2: Select Health Behaviors
- Step 3: Select Target Audience(s)
- Step 4: Select/Complete Formative Assessment



# Program Planning Steps

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- Step 5: Select/Write SMART Objectives
- Step 6: Select Intervention Strategies
- Step 7: Create/Identify Evaluation Method
- Step 8: Implement & Evaluate



"I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO."

# Step 1: Select Health Outcome(s)

- Begin by defining your health outcome, what you want to see happen as a result of your program/intervention

Let's give 'em  
some Pedometers



Health Outcomes:  
of Students at a Healthy  
of Employees at a Healthy

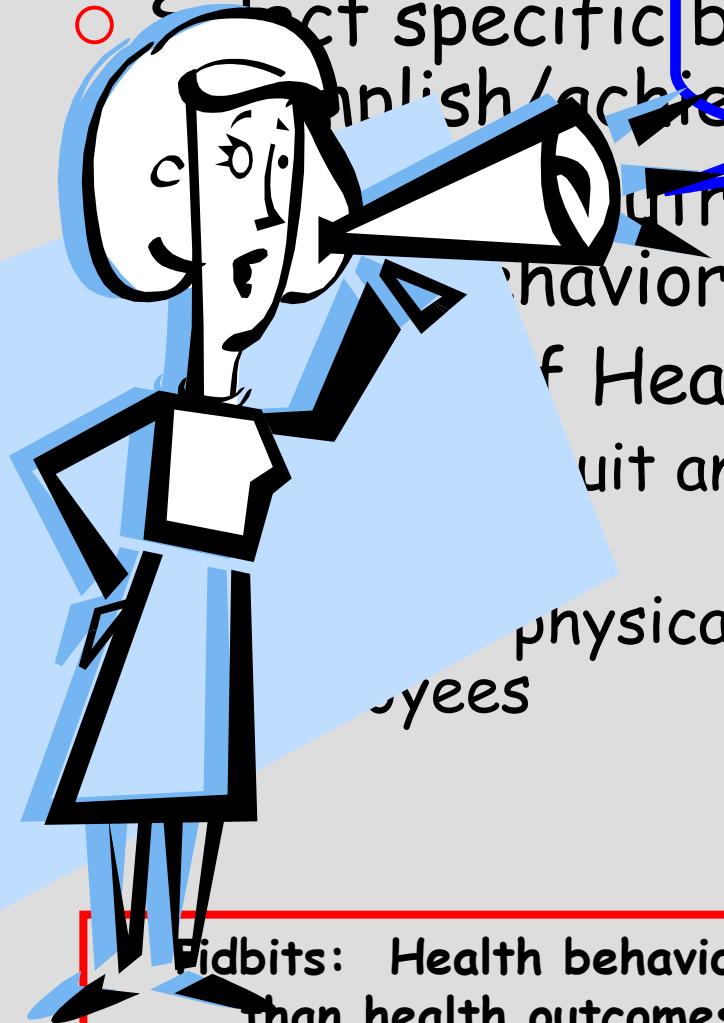
Body Mass Index

Do not jump ahead to other steps;

health outcome involves long-term change

## Step 2: Select Health Behaviors

- Select specific behaviors that will help accomplish/achieve your health outcome



**Let's hold a  
Health Fair!**

nutrition and physical  
behavior

of Health Behaviors:

fruit and vegetable consumption of

physical activity levels of

employees

**No,  
Not  
Yet!**

**Tipbits:** Health behaviors are shorter-term changes than health outcomes; utilize CDC's Big 6 here

# Let's make up Step 3: Select Target some brochures



- Determine who you want
- Select a primary audience
  - Who do you want to change?
  - Breastfeeding mothers)
  - (ie breastfeeding)

**Still  
Not  
Yet!**



- Children (12 years olds)
- Healthcare patients





## Step 3: Selecting Target Audience

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- Select a secondary audience (optional)
  - This audience influences the primary audience (i.e. children influence parents)
  - May need to complete Step 4 before determining a secondary audience

### Tidbits:

- Selecting an audience helps you effectively tailor your components and strategies later on
- Keep in mind that you may reach others with your program beyond this audience
  - Need an audience to evaluate/track



## Step 4: Formative Assessment

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- “Getting to Know” Your Audience
- Review Existing Evidence/Data
  - County Needs Assessment Data
  - Behavioral Risk Factor Surveillance System
  - Youth Risk Behavior Surveillance System
  - School/Worksite Assessment Data

**Tidbit:** Completing this step will help you tailor your program components to what your audience needs are



## Step 4: Formative Assessment

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- Gather Data Directly from the Audience
  - Formative Assessment Techniques:
    - Intercept Interviews (low resource)
    - Key Informant Interviews (low resource)
    - RAP Assessments (low resource)
    - Environmental Scan (low resource)
    - Existing Data Sources (low resource)
    - Community Forums (medium resource)
    - Focus Groups (medium resource)
    - GIS Mapping (medium resource)
    - Pre-Survey (high resource)
    - Pilot Testing (high resource)



## Step 4: Formative Assessment

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- After collecting information on your target audience:
  - Look for and inventory common barriers, issues, themes
  - Use the inventory to determine your program's goals/objectives in Step 5
- Example of Inventory:
  - Common Barriers to Eating Fruits & Vegetables:
    - Not enough time
    - Too expensive
    - Don't know how to prepare/select



## Step 5: Writing SMART Objectives

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- Set **S**pecific, **M**easurable, **A**chievable, **R**ealistic, **T**imeframe oriented objectives
- Select objectives that help accomplish your Health Behavior(s)
- Objectives will help you define:
  - What you hope to accomplish
  - What your expected outcomes are
  - What data you must collect
  - How long it will take

**Tidbit: More effective programs & interventions have both nutrition & physical activity objectives**



# Step 5: Setting SMART Objectives

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- To Begin, Consider:
  - Formative Assessment Results (Step 4)
  - Known Science or Evidence
  - Evaluation Measures (Step 7)
  
- When writing, Consider:
  - Combination of Process & Outcome Objectives
    - Process: the amount of change expected needed to impact the outcome
    - Outcome: the amount of change expected to impact a health problem or issue



## Step 5: Setting SMART Objectives

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- Examples of SMART Objectives

By March 2006, a baseline nutrition environment assessment will be completed in 4 locally-owned restaurants (process)

By March 2007, at least 1 of the 4 locally-owned restaurants will have made at least two environmental changes (outcome)



# Step 6: Using Evidence-Based Strategies

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○ Think about Strategies by:

## Behavior Change Areas:

- Individual/Behavior
- Environment
- Policy





# Step 6: Using Evidence-Based Strategies

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○ Think about Strategies by:

## **Prevention Area:**

- Fruit & Vegetable Consumption
- Sweetened Beverage Consumption
- Portion Size/Portion Control
- Breastfeeding
- TV or Screen Time
- Physical Activity



## Step 6: Using Evidence-Based Strategies

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- Consider Site of Strategy:
  - Worksite
  - Home
  - Community
  - School/Childcare
  - Healthcare
- Consider Evaluation Measures--Again

# Step 6: Using Evidence-Based Strategies

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- Select strategies that help accomplish your objectives
- When possible, select evidence-based or best-practice strategies
  - What Works in Schools
  - What Works in Worksites

**Tidbit: More effective programs & interventions have both nutrition & physical activity strategies**



# Step 7: Evaluation

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- Evaluation helps answer questions about effectiveness by documenting and measuring the implementation and success in achieving intended outcomes
- Consider existing baseline data sources
- Consider evaluation techniques
  - Pre/Post Survey
  - Retrospective Survey
  - Observation
  - Assessments (i.e. NEMS)



# Step 7: Evaluation

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- Review health outcome(s), health behavior(s), objectives, & strategies to determine necessary measures
- Select evaluation measures for process/outcome objectives



# Step 8: Implement & Evaluate

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- Consider piloting a small part or the entire program
- Once your program is being implemented:
  - Continually check-in with your target audience
  - Document, evaluate, and revise as necessary



# Example from the Field

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Footprints to Health: Franklin  
Neighborhood Initiative

# The Perfect Prescription?

**Effects:** Lose weight, decrease blood pressure, increase good cholesterol, decrease bad cholesterol

*Ambulo – 10 mg*

**Caution - Possible Side Effects:** feel better, sleep better, unexpected euphoria, increased energy, decreased risk of diabetes, decreased risk of cancer, decreased risk of heart disease.

**May also lessen your desire  
to drive everywhere.**



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# Example From The Field

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- Working with the HEAL (Healthy Eating, Active Living Coalition) in Marathon County
- Pilot intervention in summer 2005
- Designed a longer-term intervention for a Wausau neighborhood
- Received an implementation grant from WPF to replicate in other neighborhoods



# Step 1: Select Health Outcome(s)

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Health Outcome:

- Increase the number of Marathon County residents at a healthy weight

## Step 2: Select Health Behaviors

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Health Behaviors:

- Increase Fruit & Vegetable Consumption
- Increase Physical Activity
- HEAL chose a nutrition & physical activity health behavior to achieve their health outcome of increasing healthy weights

## Step 3: Selecting Target Audience

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- Primary Target Audience:  
Parents of Elementary-Aged Children
- Secondary Target Audience:  
Elementary-Aged Children
- Used the summer pilot, an extensive literature review, and formative assessment to select audiences
- Children "influence" parents

# Step 4: Formative Assessment

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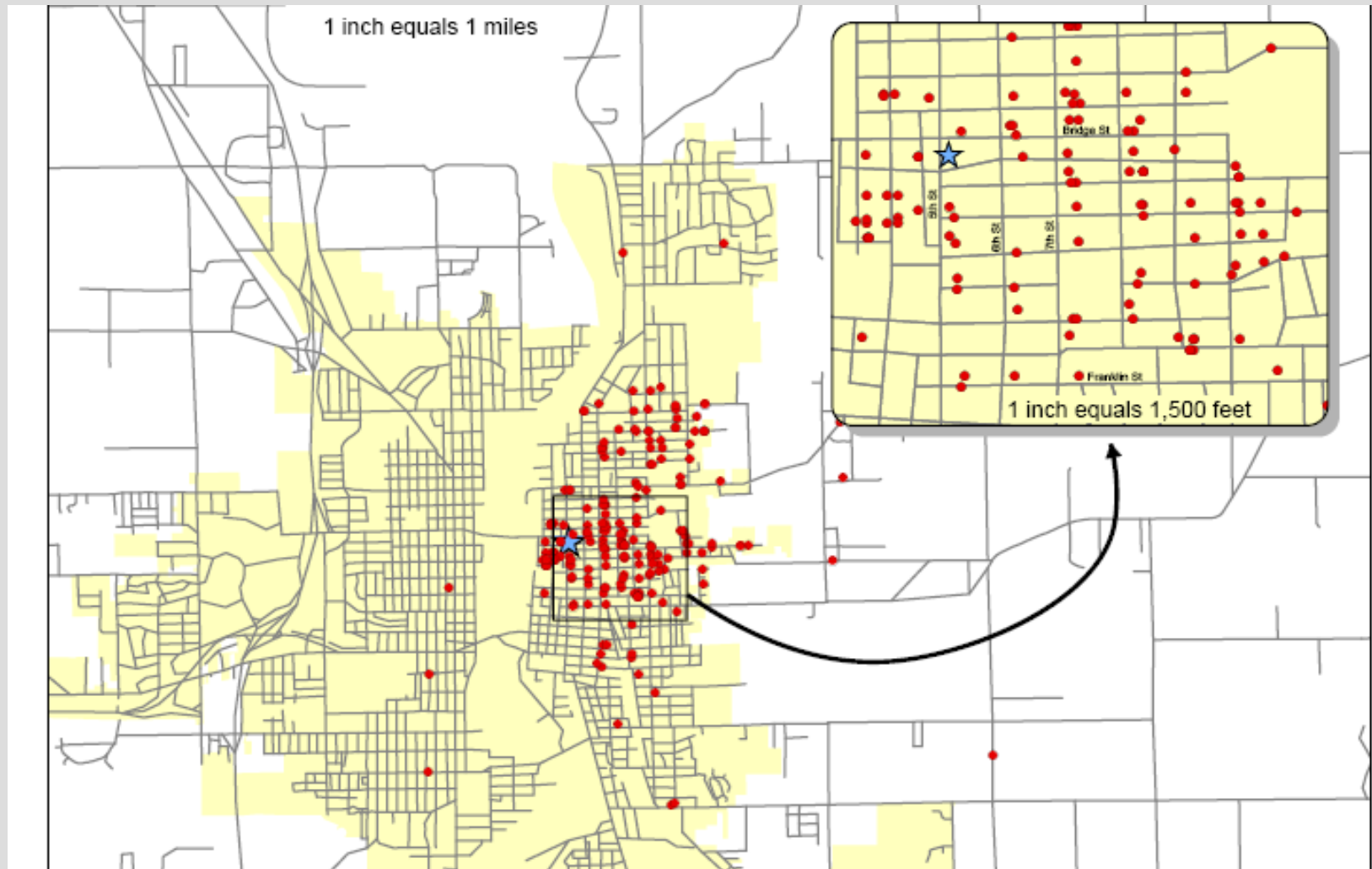
- HEAL used 4 main formative assessment techniques:
  - Focus Groups with Parents
  - Intercept Interviews with Parents
  - Environmental Scan of Neighborhood
  - Key Informant Interviews with Community Leaders/School Officials

# Step 4: Formative Assessment

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- Formative Assessment Inventory:
  - Fruit & Vegetable Consumption
    - Time, affordability, kids' dislike are barriers
    - Don't know how to select/prepare
    - Need ideas for meals/snacks
    - Eat more with meals
  - Physical Activity
    - Time, weather, cost to access facilities are barriers
    - Traffic in neighborhood contributes to decreased walking

# Formative Assessment via GIS Mapping





# Step 5: Writing SMART Objectives

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- Objectives at every level of the Social Ecological Model
  - Individual/Behavior
  - Environment
  - Policy
  
- Objectives cover the following settings:
  - Worksite
  - Community/Neighborhood
  - School

## Step 5: Writing SMART Objectives

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- By April 2007, 25% of the 375 parents of elementary-aged children, who are living in the Franklin Neighborhood, will eat one additional healthy family meal per week
- By April 2007, at least one locally-owned restaurant in the Franklin Neighborhood will have made two or more environmental changes to promote fruit and vegetable purchases.

## Step 5: Writing SMART Objectives

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- By April 2007, the Franklin Neighborhood will have instituted at least 2 of the recommended changes to make the neighborhood environment more conducive to physical activity.
- By April 2007, the hours that school and community facilities are available for use for physical activity will have increased by 10%.

# Step 6: Using Evidence-Based Strategies

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- Increase the number of healthy family meals eaten at home per week
- **Strategies Used:**
  - Teaching family meal planning skills
  - Teaching fruit & vegetable preparation/selection skills
  - Providing family meal ideas
  - Providing kid-friendly fruit & vegetable recipes

# Example From The Field



# Step 6: Using Evidence-Based Strategies

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- Increase access to fruits and vegetables via restaurants in the neighborhood
- **Strategies Used:**
  - Competitive pricing; more nutritious foods priced less
  - Point of decision prompts
  - Offer fruit and vegetable side dishes or substitutions

# Step 6: Using Evidence-Based Strategies

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- Increase access to facilities where neighborhood residents can be active
- Strategies Used:
  - Allow after school and evening access to recreational facilities (i.e. school building, YMCA, etc.)
  - Sliding-fee scales for recreational facilities

# Step 7: Evaluation

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## Outcomes--Evaluation Plan:

- Pre/Post Parent Survey
- Pre/Post Environmental Assessments
  - NEMS
  - Walkability Checklist
  - Bikeability Checklist



# Step 7: Evaluation

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## Process--Evaluation Plan:

- Number of recipes mailed to parents
- Number of Family Meal Planning Training attendees
- Number of neighborhood meetings held to discuss traffic issue/environment

# Step 8: Implement & Evaluate

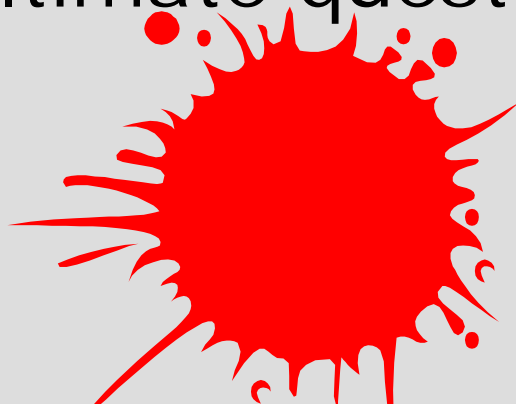
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- Intervention is in the field now
  - Tested media messages on family meals & being active as a family
  - Family Meal Planning Trainings piloted; need to be held in conjunction with school-related events to get parents from Franklin Neighborhood to attend



## We “Packaged” the Initiative to Have More Impact!

- It's not a single activity or a series of unrelated activities
- Varied and multiple exposure and “dose”
- The sum of the parts will hopefully be enough for real behavior change
- The ultimate question is: Will it ..... Stick!



SPLATT !!!

# It's A Multi-Faceted Problem...

## Food Trends

- ↑ 100% Eating out
- ↑ 400% Fast food
- ↑ 150% Soft drinks

## Personal Trends

- ↓ Time for adults with kids
- ↑ Average TV/"screen time" = 7.5 hours/day

Genetics



Level or ↓ Physical Activity

+ Increase in Food Consumption

=

↑ Body Weight



Evolution

## Physical Activity Trends

- ↑ 50% trips by car
- ↓ 87% of kids walking to school
- ↓ Physical Education time
- ↓ Jobs are more sedentary

## Environmental Trends

- ↑ Spread out communities, which ↑ trips by car
- ↓ Number of "connections", which discourages walk & bike trips
- ↓ inactivity in WI winters

# ... So Simple Solutions Won't Work

## REAL LIFE ADVENTURES



If at first you don't succeed, try something else.



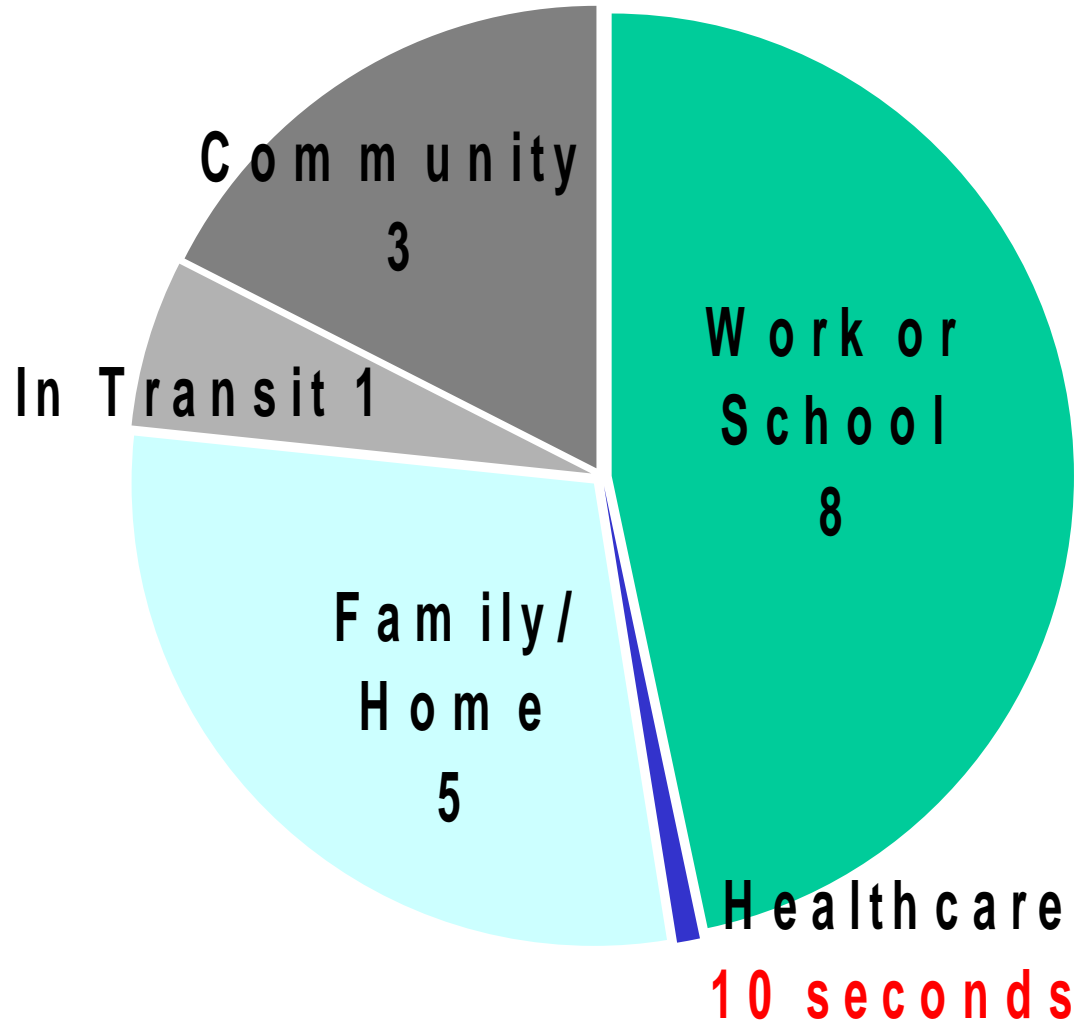
# ...It Needs a Multi-Faceted Solution

## *Intervention & Levels of Change*

<b><u>Level</u></b>	<b>Physical Activity</b>	<b>Fruits &amp; Veggies</b>
<b>Individual</b>	Destination Map Tips	Recipes/Tips
<b>Interpersonal</b>	Activity Resource Guide Walk to School	Family Meal Tips/Training
<b>School/ Organization</b>	Safe Routes to School Access to Facilities	Assessments at School/Business
<b>Community/ Environment</b>	Activity Resource Guide Access to Facilities Walking Challenge Media Campaign	Farmers Market Restaurants/Stores – Assess & Modify Media Campaign
<b>Social/Policy</b>	Traffic Calming Access to Facilities	Healthy Eating Policy

# Consider .....

## Waking Hours in Various Settings (16 total hours possible)





# Tips on Getting Started

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- **Do Not Become Overwhelmed:**
  - Utilize the KISS Principle  
(Keep It Simple Stupid)
  - Select 1 Health Behavior
  - Select 1 Objective
  - Select 1 Strategy
  - Keep the evaluation simple (process)





# Tips on Getting Started

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- Complete One Step at a Time:
  - Recognize that this planning process can take a lot of time
  
- With Limited Resources/Time:
  - Remember for every step you complete, you are working towards creating an effective program
  - It is **okay** to start with one or two steps! When resources or time become available, work on additional steps
  - "Package" your strategies where possible



# Where to Start--Resources

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- Moving to the Future:
  - On-line technical assistance resource for designing effective community programming to promote healthy eating & physical activity
  - Contains formative assessment, objective writing, and evaluation tools
  - <http://movingtothefuture.org/>



# Where to Start--Resources

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- Nutrition & Physical Activity Program
  - Can provide technical assistance with Program/Intervention Planning
  - What Works Documents that outline evidence-based strategies
    - What Works in Worksites
    - What Works in Schools
  - Other Existing Resources
    - Worksite Wellness Toolkit
    - Got Dirt? Garden Toolkit



# Where to Start--Resources

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- Future Coalition Trainings:
  - Coalition Training plan will offer more in-depth training on each step of the Program Planning Process
  - Training to begin in February 2007
  - Led by the WI PAN Families & Communities Committee

# Today's Environment

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**A refrigerator  
with a built-in TV  
What's Next?**

Can we engineer  
our way into  
eliminating all  
physical activity  
completely?




## \* CANINE CONSTITUTIONAL



Don Russell/Dispatch

A brisk walk in the park keeps Macey II in shape between dog shows. His owner, Columbus resident Cathy Stumbo, got up early

to give her 3-year-old Doberman his regular workout. They typically log 18 miles in Berliner Park.



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"People change their behavior to reflect their environments. If you want healthier people, create healthier environments"

-Tom Golaszewski, EdD





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Questions?



# Contact Information

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- **Amy Meinen, Nutrition Coordinator**
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- **Jon Morgan, Physical Activity Coordinator**
  - [morgajg@dhfs.state.wi.us](mailto:morgajg@dhfs.state.wi.us) or 608-266-9781



# Group Activity-Answers

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