


## Intervention Mapping Introduction



L. Kay Bartholomew, Guy S. Parcel,  
Gerjo Kok, Nell H. Gottlieb

Planning Health Promotion  
Programs: An Intervention Mapping  
Approach

© 2005 University of Texas Health Science Center at Houston, Center for Health Promotion and Prevention Research  
Classroom Use, Permission Granted by Kay Bartholomew

## Overview

- ◆ Intervention Mapping Development – Stimulated by questions that we couldn't answer from available health education and health promotion resources
- ◆ Brief overview of the Intervention Mapping process

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## Questions about the use of theory

### THEORY

- ◆ When in the planning process do I use theory to guide my decisions?
- ◆ How do I know what theories and constructs to use?

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## Questions about the use of evidence

### EVIDENCE

- ◆ How do I make use of the experience of others and the results of program evaluations?
- ◆ How do I judge the the validity and strength of evidence?

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## Questions about what interventions work to create change

### EFFECTIVE METHODS

- ◆ How to decide what intervention methods to use?
- ◆ How to get from program goals and objectives to intervention strategies for the program participants?
- ◆ How to link program design with program implementation?

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## Questions about how to take an ecological approach to planning

### ECOLOGICAL APPROACH

- ◆ How to address changing the behavior of people in the environment (i.e. people who are not at risk for the health problem, but are important to changing conditions that affect those at risk)?
- ◆ How to address the complexity of multi-causation of problems and multi-level intervention points?

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## How to .....

- ✦ Take ecological planning approach that considers both the social and physical environmental factors that influence a health problem directly or indirectly through behavior

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## How to .....

- ✦ Explicitly define health promoting behavior including performance objectives of the at-risk group
- ✦ Explicitly define necessary environmental change and who will make the changes

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## How to .....

- ✦ Delineate the factors that can be supported as [causally] related to behavioral or environmental causes of a health problem
- ✦ Intersect these “determinants” with the performance necessary to carry out the health behavior or change the environmental factor to create matrices

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## How to .....

Use of the *Matrix* device to plan methods and strategies for both

✓ *The intervention itself*

✓ *Adoption, implementation, maintenance and wide diffusion of the intervention*

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## How to .....

- ✦ Distinguish between theoretical methods and practical strategies
- ✦ Plan interventions that contain both

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## Overview of Intervention Mapping

### Steps of the Intervention Mapping process are

- ◆ Conduct a needs assessment
- ◆ Create matrices of change objectives based on the determinants of behavior and environmental conditions
- ◆ Select theory-based intervention methods and practical strategies
- ◆ Translate methods and strategies into an organized program
- ◆ Plan for adoption, implementation and sustainability of the program
- ◆ Generate an evaluation plan

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## Step 1 Needs Assessment

- Establish a planning group that includes potential program participants and plan the needs assessment
- Conduct the needs assessment by analyzing health and quality of life problems and behavioral and environmental causes
- Balance a needs assessment with an assessment of community capacity
- Link the needs assessment to evaluation planning by establishing desired program outcomes.

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## Step 2 Matrices of Change Objectives

- State expected change or program outcomes for health-related behavior and environmental conditions
- Subdivide behavior and environmental conditions into performance objectives
- Select important and changeable personal and external determinants of at-risk group behavior and environmental conditions
- Create matrices of change objectives by crossing performance objectives with determinants

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## Creating matrices of change objectives

	Determinant 1	Determinant 2
Performance objective 1	Change objective	Change objective
Performance objective 2	Change objective	Change objective

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## Matrix for buying or obtaining condoms

Performance Objective	Personal Determinants	
	Knowledge	Self-efficacy
Buy or obtain condoms	<b>Change objectives</b> <ul style="list-style-type: none"> <li>➤ Identify where condoms can be obtained</li> <li>➤ Identify location of condoms in stores</li> <li>➤ Describe types of condoms and features for effectiveness</li> <li>➤ Explain how to buy or obtain condoms</li> </ul>	<b>Change objectives</b> <ul style="list-style-type: none"> <li>➤ Express confidence in going into a store and buying condoms</li> <li>➤ Express confidence in dealing with embarrassment when buying a condom</li> </ul>

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## Step 3 Methods and Strategies

- Review program ideas with the intended participants and use their perspectives when choosing methods and strategies
- Use core processes to identify theoretical methods to influence changes in determinants and identify conditions under which a method is most likely to be effective
- Choose program theoretical methods
- Select or design practical strategies for delivering the methods to intervention groups
- Assure that the final strategies [still] match the change objectives from the matrices.

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

## Methods and Strategies

*theoretical method*

A *Method* is a general process for influencing changes in the determinants of behavior and environmental conditions

*practical strategy*

A *strategy* is a practical technique for the application of methods in ways that fit with the intervention group and the context in which the intervention will be conducted

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

### Step 4 Producing Program Components

- Consult with the intended participants for a health education and promotion program and bring their preferences to program design
- Create program scope and sequence, themes and list of needed program materials
- Prepare design documents to aid in producing materials that meet program objectives and adhere to parameters for particular methods and strategies
- Review available program materials for possible match with change objectives, methods, and strategies
- Develop program materials
- Pretest program materials and oversee final production

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

### Step 5 Planning for Adoption, Implementation and Sustainability

- Identify potential users of the health promotion program (revisit the planning group and linkage system to assure representation)
- Specify performance objectives for program adoption, implementation, and sustainability
- Specify determinants of adoption, implementation, and sustainability and create change objective matrices for program use
- Select methods and strategies
- Design interventions and organize programs to affect change objectives related to program use

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew

### Step 6 Planning for Evaluation

- Describe the program and complete the logic model
- Describe program outcomes for quality of life, health, behavior and environment and write objectives and evaluation questions
- Write evaluation questions based on the matrix, i.e. concerning performance objectives and determinants as expressed in the change objectives
- Write process evaluation questions based on the descriptions of methods, conditions, strategies, program and implementation
- Develop indicators and measures
- Specify evaluation design

© 2005 University of Texas Health Science Center at Houston School of Public Health  
Permission for Classroom Use Granted by Kay Bartholomew