


## Step 1: Needs Assessment

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Planning Health Promotion  
Programs: An Intervention Mapping  
Approach



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## Step 1: Needs Assessment

- Task 1: Establish a planning group that includes potential program participants and plan the needs assessment
- Task 2: Conduct the needs assessment using Precede to analyze health and quality of life problems and behavioral and environmental causes
- Task 3: Balance a needs assessment with an assessment of community capacity
- Task 4: Link the needs assessment to evaluation planning by establishing desired program outcomes

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## Task 1: Establishing a planning group and planning the needs assessment

- Approach the task with a mind to cultural competence
- Develop and manage a work group
- Plan needs assessment and data sources

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## Putting together a work group – community participation

- ✦ Participation of community members
- ✦ Stakeholders who have some interest in the health problem, the program, or the program outcome
- ✦ Community participants can be unaffiliated residents, community organizations, staff members who work with community members, and managers or leaders from community organizations

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## Principles of community collaboration

- ✦ Community involvement from the beginning of the project
- ✦ Equally shared influence on the direction and activities of the project
- ✦ Participation in objective selection, implementation, and evaluation
- ✦ Respect of the values, perspectives, contributions, and confidentiality of everyone in the work group
- ✦ Time and resources devoted to group function
- ✦ Compensation for community participants
- ✦ Concern with sustainability of projects, including long term community benefit and development of community capacity (Krieger et al., 2002; Green & Kreuter, 2005)

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## Putting together a work group – the linkage system concept

- ✦ Representatives of the resource group – the program developers and possibly funders
- ✦ Representatives of the potential program adopters and implementers
- ✦ Representatives of the priority population – ultimate end users and managers or leaders from community organizations

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### A word or two about work group management

- ✦ Effective groups are characterized by communication that is active and two-way
- ✦ Communication distributed among group members rather than to and from group members and the leader
- ✦ Leadership and responsibility for group function distributed - including generation of goals and agenda
- ✦ Goals fluid and reflect both individual and group needs
- ✦ Group cohesion is advanced through high levels of problem solving competence, inclusion, affection, acceptance, support, and trust

Johnson and Johnson (2003)

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### A third word about group work - Power

- ✦ Avenues to power and methods of decision making are other important aspects of a group
- ✦ Effective groups are likely to have power and influence that are equalized and shared
- ✦ Based upon ability and information (rather than, for example, position)
- ✦ Decision making procedures predominantly consensus and matched to the various situations the work group encounters

Johnson and Johnson (2003)

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### A final point about work groups

Every group, whether the members recognize the need or not, has three types of functions:

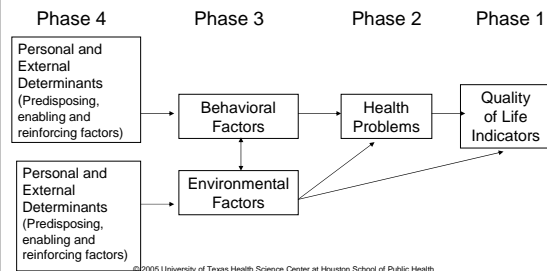
- **project tasks** - whatever must be accomplished to do the work of the group
- **group maintenance and team building** - relationships among group members, feelings of inclusivity, group norms, predictability of procedures, and issues of participation and trust building



(Bradford, 1976)

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### Planning the needs assessment with a logic model adapted from PRECEDE



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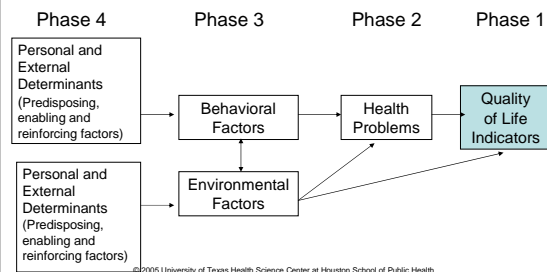
### Social Diagnosis – Quality of Life

- ✦ Considerations of Quality of Life
- ✦ Assessment of the general hopes or problems of concern of target population
- ✦ From an individual or societal perspective
- ✦ Indicator examples: Absenteeism, achievement, aesthetics, alienation, comfort, crowding discrimination, happiness, hostility illegitimacy, performance riots, self esteem, unemployment, votes, welfare

(Green and Kreuter, 2005)

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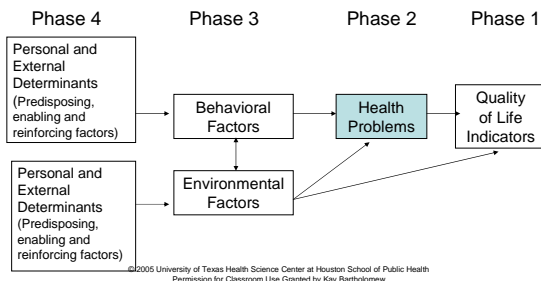
## Epidemiological Diagnosis -- Health

- ✦ Assessment of the extent and distribution of a problem in a population
- ✦ Vital Indicators: Disability, discomfort, fertility, fitness, morbidity, mortality, physiological risk factors
- ✦ Dimensions: Distribution, duration, functional level, incidence, intensity, longevity, prevalence

(Green and Kreuter, 2005)

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## Behavioral and Environmental Diagnosis

- ✦ Identification of the health-related behavioral and environmental factors that could be causally linked to the health problem(s)

Example indicators:

- ✦ *Physical Environment*: water, air, housing
- ✦ *Social Environment*: medical care, social support, access to service, rules or laws, availability of resources, attitudes and behavior of health care providers, peers, parents, employers
- ✦ *Behavior*: compliance, consumption, coping, preventive actions, risk behavior, utilization, self-care

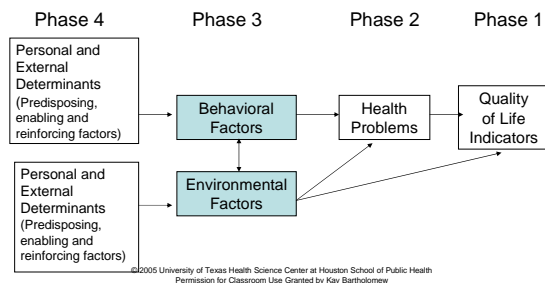
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## Identifying environmental conditions

- ✦ **Environmental factors related to risk**: Social or physical conditions that influence risk behavior, thus acting as indirect causes of the health problem, or that cause the health problem directly
- ✦ Environmental factors can be prioritized in terms of their importance and changeability

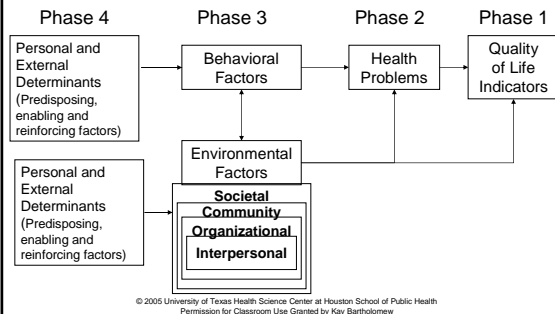
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## Planning the needs assessment with a logic model adapted from PRECEDE



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## Levels of environment



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### Examples of interpersonal environment

- ✦ **Families** - primary influence for socialization of children and continue to effect behavior throughout life
- ✦ **Peer groups** - beginning with playmates and continuing with friends, neighbors, coworkers, and members of organizations with which individuals affiliate (such as through churches, social clubs, and service groups).
- ✦ **Influential roles** - special influence e.g., teachers, coaches, religious leaders, health care providers.
- ✦ **Support from social networks** - emotional support, information or advice, material support, maintenance of social identity, and social outreach

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### Examples of organizational environment

- ✦ Elements such as norms, policies, practices, and facilities
- ✦ **Examples of health-related organizational elements:**
  - ✓ Policies that exert strong control over behavior, as in worksite bans on smoking
  - ✓ Preventive health care policies and health care facility characteristics such as service hours that determine whether workers obtain care

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### Examples of community level environment

- ✦ Availability of work and income
- ✦ Quality and quantity of housing
- ✦ Health care
- ✦ Availability of recreational resources
- ✦ Smoking and other health ordinances
- ✦ Law enforcement, judicial practices
- ✦ Treatment resources for social problems such as child abuse, violence, and drug addiction
- ✦ Social capital (capacity of the community to form and maintain problem-solving relationships)

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### Examples of societal environment

- ✦ Legislation
- ✦ Enforcement
- ✦ Regulation
- ✦ Resource allocation
- ✦ Policies, programs, and facilities of large political and geographic groups
- ✦ Societal influences often function through governments

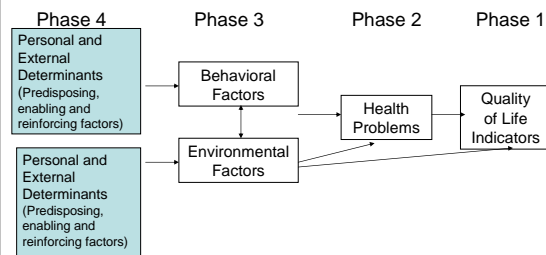
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### What factors determine the behaviors and environmental conditions?

- ✦ Personal determinants described by PRECEDE as **predisposing factors**  
For example: Knowledge, attitudes, Beliefs, values, perceptions
- ✦ External determinants that influence behavior are in the environment and also in the determinants column – described by PRECEDE as **reinforcing factors and enabling factors**

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## Task 2: Conducting the needs assessment

- Describing the priority populations
- Putting together a plan of data sources and data collection methods
- Organizing the findings in the logic model based on PRECEDE

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## Describing the individuals who are potential program recipients

- In a multilevel program, the recipients of program benefits may not necessarily be the population at-risk
- There are often multiple groups targeted by an intervention, some of whom are populations at risk and others, those who influence the environment
- Program participants could be environmental agents, such as the health care providers in a case of chronic disease management, or organizations and government in a case of primary prevention policy
- Good demographic and epidemiologic description of the potential program recipients should come out of the needs assessment

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## Describing the population at-risk

- A group with a definable boundary and shared characteristics
  - That have, or are at risk for, certain health and quality-of-life problems
- Or
- Who have health problems and are at risk for the sequela

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## What is a community?

- A geographical area comprising persons and organizations.
- A social place shared by individuals in units such as families, neighborhoods, and clubs and by organizations such as civic groups, churches, local media, and local government
- A sense of living or working in a location as well as some common elements of values, culture, norms, language, and health and quality of life problems
- Members of these geographic communities will have perceptions of boundaries, appropriate representatives, and concerns or problems

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## Other types of community

- ◆ People with a "sense of community" without shared physical boundaries
- ◆ Demographic boundaries (e.g., socioeconomic status, gender, age, and family structure)
- ◆ Demographic-ethnic boundaries (e.g., Latino, European American, African American, Dutch of Surinamese origin)
- ◆ "About people having a lot of the same values, beliefs, and habits; people you identify and feel similar to" (Kraft et al., 2000)
- ◆ A group coming together for a cause or political agenda (Eng & Parker, 1994)
- ◆ New definitions when internet links people with shared characteristics without geographic proximity (Hospers, Hartenink, van den Hoek, & Veenstra, 2002)

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## A shared risk-factor or health problem

- Shared health problem or risk factor - the relatedness in a population may be that all the members have a risk factor or health problem in common, for example, cystic fibrosis, cardiovascular disease, or AIDS
- Sometimes these individuals come together in organizations for mutual support, e.g., Multiple Sclerosis Society

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## Where to start in the needs assessment?

- ◆ Quality of life assessment
- ◆ Health problem
- ◆ Risk behavior or environmental condition

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## Describing health problems

- ◆ What is the problem?
- ◆ Who has it?
- ◆ What are the incidence, prevalence and distribution of the problem?
- ◆ What are the demographic characteristics of the population with the problem or at risk? Who has excess risk or excess burden?
- ◆ Is there a community? What are its characteristics, including its resources and strengths?
- ◆ Where can the group's at-risk individuals be reached with a program?

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## Rates

- ◆ Number of events (people with a problem) over a period of time per 1,000 or 100,000 population
- ◆ Incidence - new cases of a problem in a certain time period
- ◆ Prevalence – the number of existing cases
- ◆ Adjusted by demographic variables such as age and gender -often reported as age-specific and can be weighted to match the age distribution in the population of interest
- ◆ Rates is that they can be compared across group characteristics and geographic areas to answer questions such as:

Is this an important problem in a community?  
Is it more or less prevalent in this community than in others? Is it more prevalent than in communities that are demographically similar?



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## Sources of needs assessment data

Considerations for deciding on data sources:

- ◆ The groups and individuals that may be respondents for the assessment. Different groups have different needs for data collection modalities
- ◆ Usually multiple sources are needed to provide different types of information
- ◆ Consider feasibility including cost, time and other constraints
- ◆ Degree of interaction desired with respondents and other participants such as stakeholders and the needs assessment team

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## Sources of secondary data for needs assessments

Type of data	Source
Demographic	◆ U.S. Census; Statistical abstracts of the U.S.; National Vital Statistics Report
Health and vital statistics	◆ Morbidity and Mortality Weekly Report (MMWR); National Center for Health Statistics
Risk factors	◆ Behavioral Risk Factor Surveillance Survey (BRFSS); Centers for Disease Control (CDC); WHO World Health Statistics
Environmental	◆ Environmental Protection Agency; Air data: Access to Air Pollution Data
Cancer as an example of disease-specific sources	◆ National Cancer Institute

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## Primary data sources

### Data Collection from Individuals

- ◆ Ethnographic interview and observation
- ◆ Critical incident technique (as part of a survey or interview)
- ◆ Key informant interview (or survey)
- ◆ Survey (mail, in-person, telephone, internet)
- ◆ Interview

### Data Collection from Groups

- Non-interacting
  - ◆ Mailed Delphi
- Interacting
  - ◆ Community forum
  - ◆ Focus groups
  - ◆ Nominal group technique
  - ◆ Freirian question posing
  - ◆ Delphi technique
  - ◆ Natural groups and planning groups
  - ◆ Photovoice

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### Task 3: Balancing a needs assessment with an assessment of community capacity

- A healthy community has been described as one that is continually creating and improving resources in its physical and social environments that enable people to mutually support each other in performing all the functions of life (Hancock & Duhi, 1986)
- Community capacity assessment examines the community's social and physical infrastructure related to community problem-solving and development, as well as the policy and physical environments that facilitate health-promoting behaviors

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### A typology of community involvement

1. Community-based often means community host to interventions usually oriented toward changing health behavior of individuals
2. Community as the target for change (change in community-wide policy, institutions and services)
3. Community ownership of and participation in health promotion programs to ensure sustained program success
4. Community as agents of adaptation that through their many institutions, meet the needs of community members (McLeroy, Norton, Kegler, Burdine & Sumaya, 2003; Coulton, 1995)

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### Measuring community capacity

1. Citizen participation
2. Leadership
3. Skills (e.g., group process, conflict resolution, community assessment, problem solving, program planning, evaluation, resource mobilization, advocacy)
4. Resources (internal and external including social capital)
5. Social and interorganizational networks
6. Sense of community
7. Understanding of community history
8. Community power (power "with")
9. Community values
10. Critical reflection (Goodman et al., 1998)

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### Contrasting the "Needs" vs. "Assets" approach to community enhancement

Needs	Assets
● Focuses on deficiencies	● Focuses on effectiveness
● Results in fragmentation of responses to local needs	● Build interdependencies
● Makes people consumers of services; builds dependence	● Identifies ways that people can give of their talents
● Residents have little voice in deciding how to address local concerns	● Seeks to empower people

(Beaulieu, 2005)

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### Mapping community capacity

#### Located and controlled in the community

- Personal income and capacity
- Individual local businesses
- Home based enterprises
- Citizen associations and business associations
- Financial institutions
- Cultural organizations
- Communications organizations
- Religious organizations

(Kretzmann & McKnight, 1993)

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### Mapping community capacity

#### Located within the community but controlled mainly outside

- Institutions of higher learning
- Hospitals
- Social service agencies
- Public schools and libraries
- Energy and waste resources
- Police and fire departments
- Parks and land
- Social capital

#### Located within the community but controlled mainly outside

- Welfare expenditures
- Public capital improvement expenditures
- Public information

(Kretzmann & McKnight, 1993)

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## Task 4: Linking to evaluation planning by stating desired program outcomes

- **Setting priorities**
- **Writing outcome objectives**

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## Setting priorities

- ✗ Iterative process throughout the needs assessment and as summary after data analysis
- ✗ Begins with decision of what groups and problems to study
- ✗ Various decisions are made about the continuing focus
- ✗ For example, the asthma needs assessment came to be focused on school children
- ✗ For example in the stroke project planners focused on stroke treatment, i.e. secondary and tertiary prevention, rather than on primary prevention of stroke

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## Criteria for setting priorities

- ✗ Magnitude between what is and what could be. For example, the stroke team discovered that the rate of drug therapy for acute stroke in the U.S. was only about 1-2%. The rate could be much better – maybe 4 to 5 times the current rate.
- ✗ Difference in burden from a problem among groups
- ✗ Practical issues such as potential difficulty in ameliorating the needs, the consequences of ignoring the needs and the possible costs of implementing a solution
- ✗ Political and other social factors such as community values, the context of priorities, i.e. the local, regional, national and international priorities, public and leader expectations, available interest and expertise, momentum, and availability of funding and human resources.  
(Witkin & Altschuld, 1995)

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## Relevance and changeability

- ✗ Relevance as the strength of the evidence relating a determinant and the behavior or environmental factor we want to change
- ✗ Changeability, as strength of the evidence that the proposed change can be realized by an intervention.
- ✗ Termed "importance" by Green & Kreuter (2005) and changeability of behaviors and environmental factors.
- ✗ Behaviors and environmental conditions that are both more relevant and more changeable will be a high priority for program focus

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## Objectives from the needs assessment

Type of objective	Definition
✗ Health outcomes	✗ What will change in terms of the health problem? By how much? Among whom? By when?
✗ Quality of life outcomes	✗ What will change in terms of quality of life?
✗ Health-related behavior outcomes	✗ What health related behavior will change?
✗ Health-related environmental outcomes	✗ What environmental conditions will change?

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## Other Intervention Mapping Objectives

Type of objective	Definition
✗ Performance Objectives	✗ What the at-risk group members or environmental agents must do to accomplish the health-related behaviors or environmental conditions
✗ Change Objectives	✗ The combination of the performance objectives with their determinants
✗ Performance Objectives (adoption, implementation, sustainability)	✗ What the program adopters and implementers must do to use and continue the program
✗ Change Objectives (Adoption, Implementation, Sustainability)	✗ The combination of the performance objectives with their determinants for program adoption, implementation and sustainability

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