



# Program Evaluation I: Problem Analysis and Effectiveness-Based Program Planning

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Building Capacity for Health Promotion and Chronic Disease Prevention  
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# Session Purpose

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- To promote problem analysis and program planning based on a broad conceptualization of the determinants of population health
- To place program evaluation within the context of problem analysis and program planning
- To stimulate critical and creative thinking regarding program/intervention planning and evaluation



# Session Objectives

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- Define and explain the importance of 'evaluation'
- Identify characteristics of a sound evaluation
- Discuss an ecologic participatory approach to problem identification and needs assessment



# Session Objectives

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- Describe how to design a Logic Model
- Explain how a Logic Model:
  - Enhances program planning
  - Informs program evaluation



# Health and Health Promotion

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- Health: a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.
- Health Promotion: process of enabling people to increase control over and to improve their health

WHO



# Determinants of Health

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- The structure and organization of societies
- Levels of scientific knowledge and technological capacity
- Operating social values



# Activities Promoting Health

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- Policy Initiatives
- Trainings
- Communication Campaigns
- Educational Programs
- Community Mobilizations
- Direct Services



# Health Programs

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Set of planned organized activities grounded in theory and evidence carried out over time to accomplish specific goals and objectives.



## EVALUATION: What is it?

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Attempt to systematically assess the impact of programs or policies on problems they are designed to address



# EVALUATION: Why?

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- To generate information regarding program/policy success or failure
- To enhance management decision making
- To improve program operations
- To maximize benefits to program participants and targeted populations
- To generate an advocacy agenda



# Sound Program Evaluation

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## Required Activities:

- Analysis of the problem
- Identification of the goals to be evaluated
- Identification of measurable objectives
- Standardization of program activities
- Measurement of change
- Identification of program costs for achieving results
- Dissemination of findings

Adapted from Suchman, 1967



# Problem Analysis: What is it?

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- First step in 'evaluation'
- How a problem is defined will determine proposed interventions and solutions



# Problem Analysis

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- Not just an exercise, a dynamic process
- Should be based on theoretical models reflecting an understanding of what influences and promotes health and creates need.



# Identifying and Analyzing Public Health Problems

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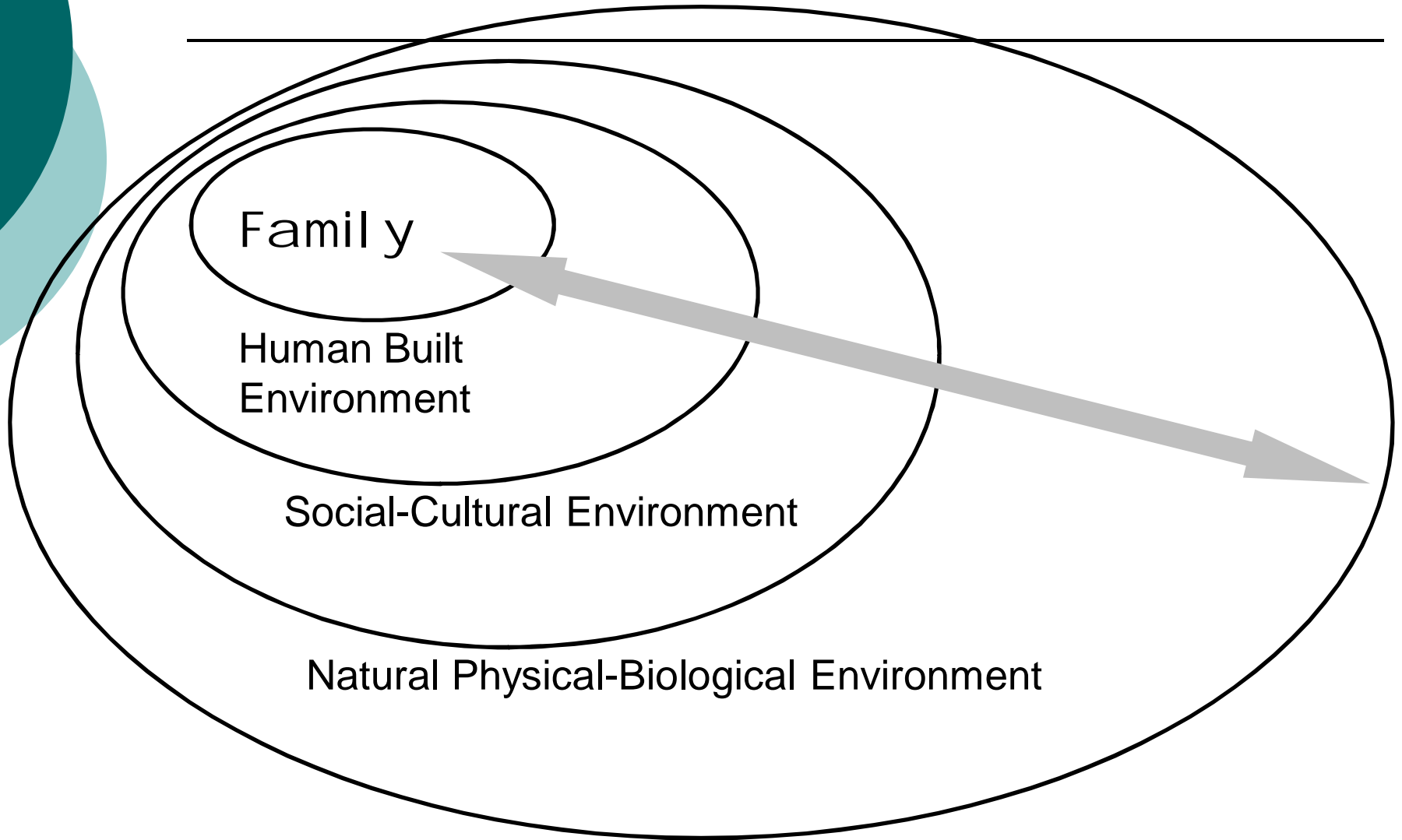
- The complex nature of current public health challenges require multi-level and multi-dimensional approaches
- Current evidence and theory increasingly promote an ecologic and participatory approach to problem identification, analysis, and the development of preventive and/or intervention activities



# Ecologic Approach

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- Study of relationships among organisms and their environments
- Seeks relevant connections and anticipates the effects
- Acknowledges dynamic interactions that continuously shape, modify, and transform populations and environment
- Not a new concept
  - Rudolf Virchow
  - Florence Nightingale
  - John Snow



Family

Human Built  
Environment

Social-Cultural Environment

Natural Physical-Biological Environment



## Participatory Assessment and Planning

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- Active involvement of those intended to participate in or benefit from the program
- Enhances attention to and inclusion of the social, emotional, spiritual, as well as the biological dimensions of health



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What does an ecologic and participatory approach mean for problem identification and analysis?



# Ecologic and Participatory Approach

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- Active involvement of those intended to participate in or benefit from the program
- Seek synthesis of the multilevel/multidimensional determinants of health and well-being
- Find common ground among perception or need, measurement of need, resources and feasibility



## Components of an Ecologic Participatory Problem Analysis/Needs Assessment

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- Social Assessment/Social Diagnosis
- Epidemiologic Assessment
- Situational Analysis



# Ecologic Participatory Problem Analysis/Needs Assessment

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## Social Assessment/Diagnosis

- Engage the community as active partners in process
  - Identify quality of life → perceptions, problems, and priorities of community and individuals.....consider social indicators → comfort, alienation, crime, overcrowding, self-esteem, unemployment, discrimination, racism, strikes, rebellions
  - Verify through existing data or new data collection



# Ecologic Participatory Problem Analysis/Needs Assessment cont'd

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## Social Assessment/Diagnosis Cont'd

- Assess capacities and assets of the community: experience, skills, and talents, as well as readiness to deal with health issues



# Ecologic Participatory Problem Analysis/Needs Assessment cont'd

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## Epidemiological Assessment

- Health Status Indicators
  - Mortality, Morbidity, LE, Functional Status - Distributions, Incidence, Prevalence, Risk Factors
- Behavioral Indicators
  - Patterns of behavior and lifestyle for individuals and groups/communities: Religious Practices, Consumption Patterns – Diet and food preparation, Substance Use; Sanitary Practices, Physical Activity, Sexual Behavior, Service Utilization/Self Care, Coping and Preventive Care Activities



# Ecologic Participatory Problem Analysis/Needs Assessment Cont'd

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## Epidemiologic assessment cont'd

- Social, Economic and Political Environment
  - Housing and recreation, education and schools, employment, occupations, transportation, food production and quality, forms of governance
- Natural Environment
  - Air quality, water resources – supply and quality, land use, soil quality, waste disposal



# Ecologic Participatory Problem Analysis/Needs Assessment cont'd

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## Situational Analysis

- Stakeholders and Key Informants
- Potential Organizational Collaborators
- Staff/Technical Resources
  - Experience? Training? Data system resources?
- Budget
  - Planning costs? Facility space? Staff and equipment



# Recognizing Need/Defining Problems

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We do not see things as they are;  
we see things as we are?

Anais Nin



# Recognizing Need/Defining Problems

## Types of 'Need'

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Needs are value judgments about problems that can be solved

- Normative – expectations based on expert opinion
- Felt – expectations persons have for themselves
- Expressed – expectations indicated by utilization of services; public manifestations, work actions
- Comparative – expectations based on performance /standards of another group or area

Bradshaw 1972



# Methods for Prioritizing Need

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- Nominal Group Process
  - Attempts to address the dynamics of social power; group identifies and ranks problems through brainstorming and consensus building
- Delphi Method
  - Use of successive questionnaires to select group of key leaders, informants. Each one further refines and narrows range of opinions based on previous responses working toward consensus



## Sources/Types of Information on Need

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- Population Data
- Program Data
- Administrative/Government Agency Data
- Industry Data – exports, sales, profits
- Research Studies
- GIS
  
- Quantitative
- Qualitative
  - Primary Data Collection
  - Secondary Analysis



# Primary Data Sources

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- Surveys
- Key Informant Interviews
- Stakeholder Interviews
- Focus Groups
- Community Forums or Public Hearings



# Secondary Data Sources

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- Vital Records
- Population-based surveys (national, regional, local)
- Census
- Hospital data
- Registries
- Laboratories
- School Systems
- Previous Assessments
- Other???



# Ins and Outs of Secondary Data

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- Comparability of data definitions and collection methods
- Time periods – collection and reporting
- Purpose of data collection – influences reporting and analysis
- Data management and quality control – missing values



## Ins and Outs of Secondary Data

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- Prior data manipulation or messaging - aggregation, suppression, imputation
- Units of analysis – comparability?
- Sources of error with denominators
- Program versus population data



## Secondary Data Source Bottom Line

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Always know how and why data were collected

Determine if data sources are appropriate with respect to what it is that you are attempting to measure



# What is it you want to measure?

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- Begin with a question
- Identify and select indicators relevant to the question/s posed



# What is it you want to measure?

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Goal: relevant quality data for the questions and problems at hand, in order to generate useful information

- Data routinely available should not shape questions to be answered
- What we collect reflects what we think is important
- How we interpret and use data reflects our assumptions and beliefs



# Indicators

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What are indicators ?

- Measures that summarize information relevant to a particular phenomena or are reasonable proxies
- Measures that answer the questions who, what, and where
- And, provide direction as to why



## Indicators

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- Provide information that contribute to effective interventions at the policy and/or program level
- Can set public health agendas
- Can broaden the scope of appropriate interventions



# Types of Indicators

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- Single Measures- rates, percents, ratios
- Indices- cluster of variables:  
Framingham Score, APNCU
- Estimated or Projected- targets, objectives



# Indicator Characteristics

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- Valid – provides a measure of what is intended to be measured
- Reliable – provide same answer with repeated measurement
- Sensitive – include the capacity to measure change
- Specific – only reflect changes with the issue under consideration
- Relevant – provide information on issues that are or should be of public concern



# Selecting Indicators

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## Criteria:

- Represent health status measures known to be preventable or amenable to interventions
- Represent issues/problems considered significant by public and policy makers
- Sentinel Events
- Provide Policy implications



# Selecting Indicators

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## Key Decision Points

- Data availability
- Data accessibility
- Data quality – accuracy and completeness
- Appropriateness for population of interest



# Effectiveness-Based Program Planning

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Begin with a Logic Model



# What is a Logic Model?

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- A systematic, visual representation of the relationships among environmental context, program resources and activities, and intended results
- A Management tool
- A framework to increase evaluation effectiveness
  - Also known as, 'theory or model of change', 'conceptual map', 'roadmap', 'blueprint'



## Why Use Logic Models?

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- Create a shared understanding of goals, objectives and methods → relate activities to outcomes
- Describe programs in language clear and specific enough to be understood and evaluated
- Focus attention and resources on priority program operations and results for program improvement



## Why use Logic Models?

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- Facilitate the development of targeted communication and marketing strategies
- Provide an organized approach to capturing, documenting, and disseminating program results → increasing likelihood of future investment in the program
- Provide the basis for successful evaluations



# Logic Models

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## Approaches:

- Theory Models
- Outcomes Models
- Activities Models
- A blend
- Generic Program Performance Framework\*

WKKellogg Foundation; E. Taylor-Powell, 1988UW\*



# Logic Model Development

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Who should be involved?

- All key program and organizational stakeholders
  - A collaborative, inclusive, collegial process



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***If you don't know where you're going, how are you gonna know when you get there?***

***Yogi Berra***



# Building a Logic Model

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Identify your program goals and outcomes

Outcomes should be: **SMART**

Specific

Measurable

Action-oriented

Realistic

Timed



# Building a Logic Model

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Have a full understanding of the relevant environment

Specify Assumptions:

How are you conceptualizing the program? What is the basis for your program's approach?

Example:

- Health is a community issue and communities will form partnerships to resolve their health problems
- Communities can influence public and market policy at the local, state, and national levels
- Sex education improves sexual health
- Partnering with youth to address youth issues is very productive and effective



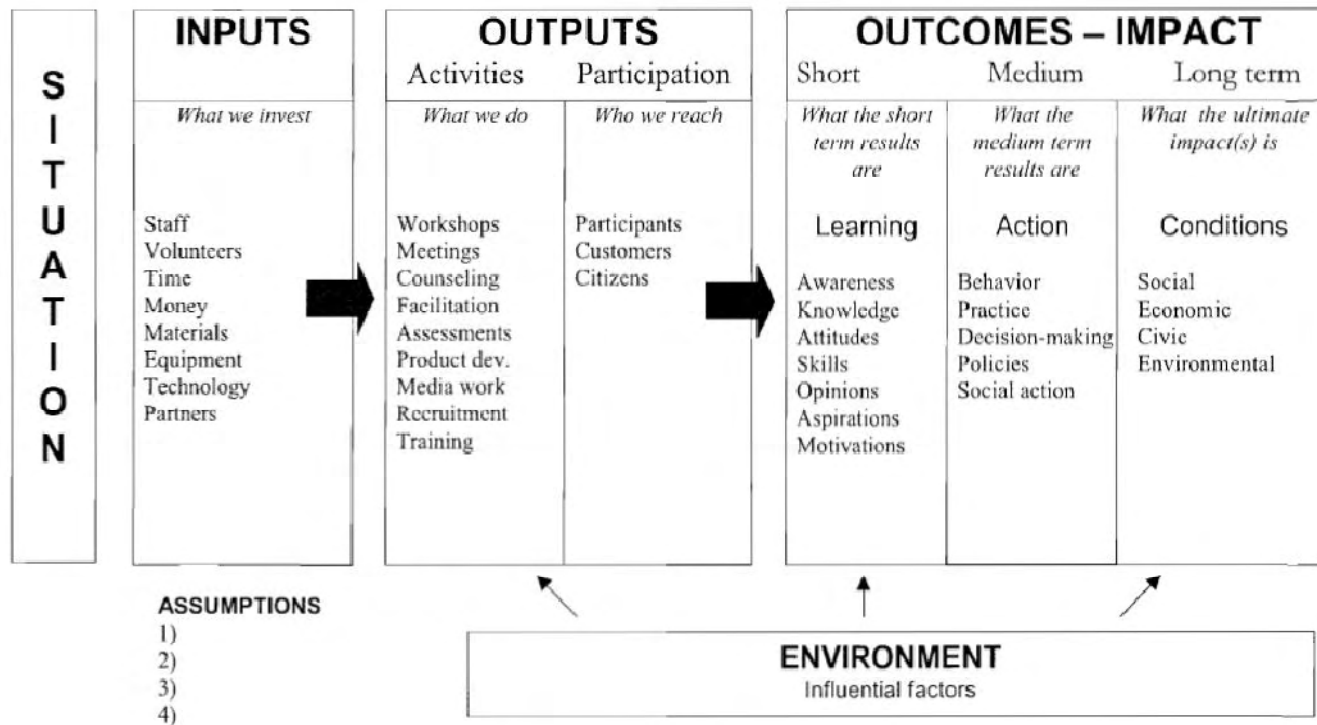
# Building a Logic Model

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- Develop a series of “if.....then....” statements to connect the program parts from needed resources to accomplishing required activities to achieve desired outcomes.
  - If your assumptions are true, then activities building on these should lead to the anticipated outcomes
- Add details to the inputs, outputs, and outcomes sections



## LOGIC MODEL: Program Performance Framework





# Logic Model Exercise

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# Resource

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**W.K. Kellogg Foundation Logic Model Examples**

W.K. Kellogg Foundation Web site

<http://www.wkkf.org>

*W.K. Kellogg Foundation Evaluation Handbook*



# Program Evaluation II: Plans, Designs, and Success

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