

Program Evaluation and Public Health Community Based Practice

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This Session

- A systematic process for program evaluation
 - Steps 1-4
- Evaluation in grant-writing
 - Process, outcome, and impact measures
 - Collecting the appropriate data
- An evaluation plan in action
 - Louisville Putting Prevention to Work federally funded grant

The Goal of Evaluation

“To assist with continuous programmatic improvement and introspection..”

- Michael Quinn Patton, 1996

Evaluation

“Evaluation is an art and every evaluation should represent an idiosyncratic effort to meet the needs of program funders and stakeholders.”

- J. McLaren, 2000

Types of Evaluation

- Formative – used to improve the program
 - Conducted before a program is fully implemented
- Process – used to document outputs from a program's implementation
- Summative – used to determine program effectiveness
 - Outcome
 - Impact

Formative Evaluation

- Conducted to get information
 - During program planning
 - To test a program's materials, messages, procedures using pilot tests
 - During the early implementation/pilot phase with the intention to improve a program

Process Evaluation

- Monitor and document program factors
 - Implementation evaluation – determines how the program is implemented
 - Asses the fit between the implementation and plan
 - Identifies barriers to implementation
 - Charts progress towards program goals and objectives
 - Documents satisfaction and perceptions of program participants and other stakeholders

Summative Evaluation

- Summative – used to determine program effectiveness
 - Outcome
 - Impact

The Evaluation Process

Steps in the Evaluation Process

- Step 1: Provide a thorough description of the program you are evaluating
- Step 2: Specify the evaluation questions you need to answer and the approaches needed
- Step 3: Collect and analyze data that is valid and reliable to answer the evaluation questions specified in step 2
- Step 4: Develop a comprehensive report of your results and share them with multiple stakeholders.

A Cyclical Evaluation Process



Step 1: The Program's Description

The Program's Description

Benefits of a Clear Description

- Funders want to support a well articulated program
- Program participants are more easily identified and recruited
- Ensures everybody understands how the program fits in with the vision
- Can transmit a clear and consistent message about the program
- Clarifies the components for evaluation
 - Evaluation questions are more clearly and easily identified for developing a thorough evaluation plan

The Program's Description

Stakeholders: Roles and Responsibilities

- Stakeholders
 - Funders
 - Beneficiaries
 - Those affected directly by their participation or impacted by the program or policy
 - Management and staff
 - Program/policy supporters
 - Individuals
 - Lawmakers (local, state, national)
 - Media
 - Program/ policy competitors

The Program's Description

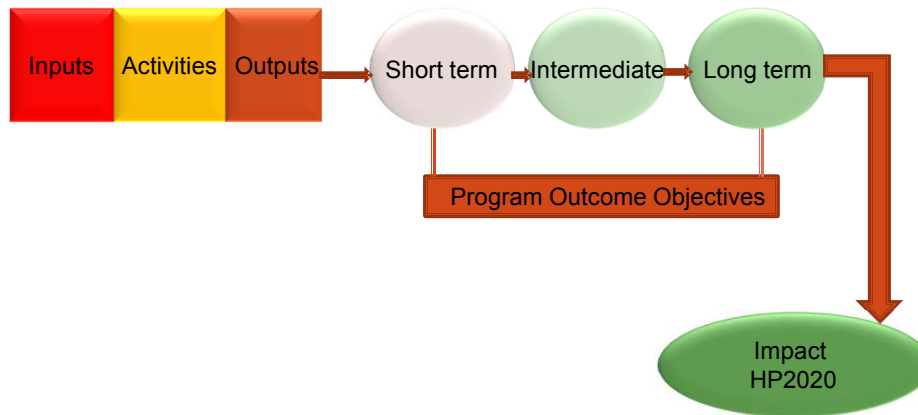
Stakeholders: Roles and Responsibilities

- Stakeholders identify
 - Previous research and/or needs assessment
 - Program components
 - Staffing
 - The program's expected change process
- Stakeholders participate in
 - Identifying evaluation questions
 - Collecting and analyzing valid and reliable data
 - Reporting evaluation results to other stakeholders

Components of a Clear Description

- Research
 - Community assessment
 - Problem being addressed
 - nature, magnitude, populations most affected
 - Risk factors giving rise to the problem
 - Protective factors that minimize the problem
 - Existing programs and policies
 - Community resources for addressing the problem
 - material, financial, human
 - Literature Review
- Program
 - Components - Activities
 - Goals and SMART objectives – expected effects/outcomes of the program
 - Program's Effect Model/Logic Model

Program's Effect Model



Components of the Program's Effect Model/Logic Model

- **Resources/Inputs/Capacity**
 - Resources (trained staff, venue, transportation, etc)
 - Financing
- **Activities** – what the program actually does to achieve the outcomes
- **Outputs**
 - Number of clients/program beneficiaries/lawmakers participating or trained
 - Number of lights put up to improve safety
 - Number of sidewalks striped
 - Number of corner stores opened
 - Number and type of media messages aired
- **Outcomes/Outcome measures**
 - Ultimate results of efforts to change, knowledge, attitudes, behavior, and environmental status or policy
- **Impact of the programs and policies for the whole community in 5-10 years**
 - Ultimate improvements in quality of life, incidence and prevalence of public health problems identified in the HP 2020 e.g. Reducing the rates of Diabetes in the US

Step 2: The Evaluation Questions

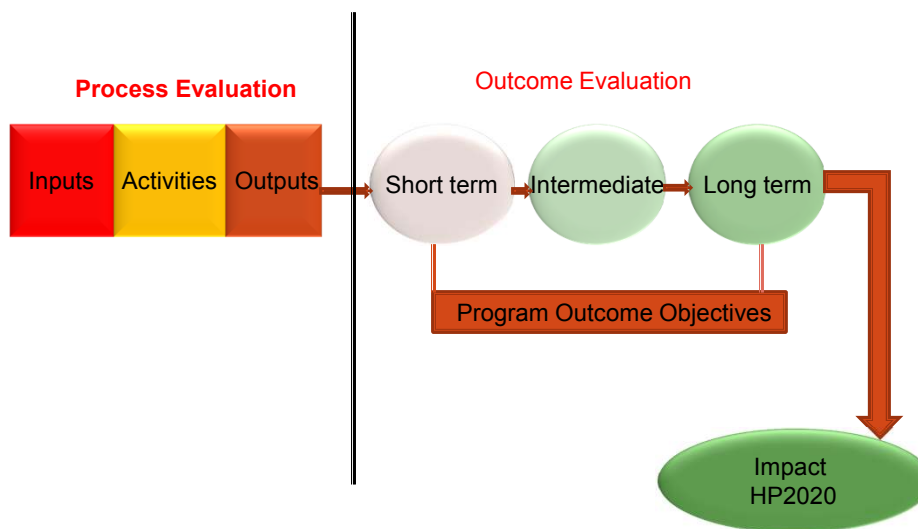
Evaluation Questions

- Purpose of the Evaluation
 - Gain insight
 - Change practice
 - Assess effects
 - Accountability
 - To change/empower program participants

Selecting the Questions

- Basis for selecting questions
 - Stage of the program
 - Concerns and priorities of the stakeholders
 - Time and resources available
 - Experience of the evaluation team
 - Effect model/Logic model

Effect Model



Evaluation Questions

Essential questions versus interesting questions

- Process Evaluation
 - Assessing program monitoring
 - Inputs/Resources
 - Activities
 - Outputs
- Outcome Evaluation
 - Assessing program effects
 - Program Outcome Objectives
 - Short term (<1 year)
 - Medium term (2-3 years)
 - Long term (4-10 years)

Process Evaluation

Process Evaluation

- Assesses the program at the level of implementation
 - Inputs/resources
 - Outputs/products of the initiative
 - Effectiveness of the administrative structures
 - Barriers to implementation
- Satisfaction
- Context
- Reach
- Dosage / Intensity
- Fidelity

Process Evaluation Questions

- Is the program being implemented according to the plan?
- What type, quality and quantity of the program is being provided?
- Who is providing the program and are they qualified to do so?
- What are the products of the program's implementation?
- What barriers are there to program implementation

Process Evaluation

- Considerations for selection of questions
 - Availability of resources
 - Budget, expertise, and experience
 - Time
 - Access and availability of administrative and participant data
 - Stage of the program

Process Evaluation

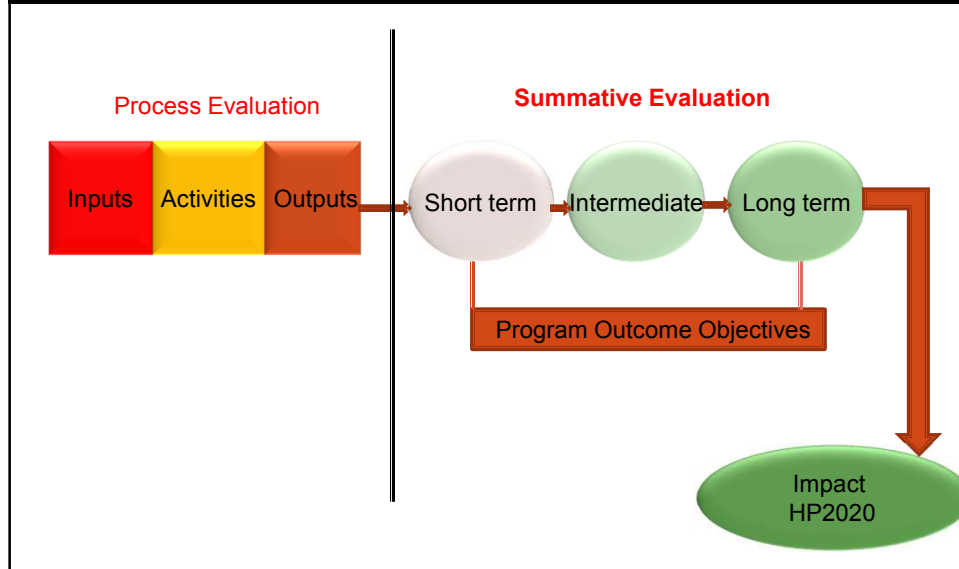
- Assessing Resources
 - Funding levels and distributions
 - Resources utilized
 - Number and qualifications of staff and others implementing the programs
 - Quality of curricula, training and other program components

Process Evaluation

- Assessing the Processes
 - Level of implementation
 - Intensity and reach
 - Participation of target audience
 - Staffing of program activities
 - Training

Summative Evaluation

Effect Model



Summative Evaluation

- Outcome
 - Did the initiative make a difference for those who were exposed to it?
 - Carried out when the initiative or component of the initiative is expected to have had an effect on the participants or those exposed to it
 - The questions that are answered are also dependent on
 - Resources, expertise, training, team preferences, etc.

Causation

- Summative (outcome) evaluation
 - Quasi-experimental Designs
 - To examine whether a program or policy causes a change
 - To determine if the intervention (program or policy) causes the outcome (effect/results) that is being observed

Attributing Outcomes to Programs

- Quasi-experimental designs
 - Often used, but designs that do not show causation
 - One group post test only measurement
 - One group pre/posttest measurement of change
 - Vulnerable to all the threats to internal validity

Attributing Outcomes to Programs

- Quasi-experimental designs
 - Designs that may permit causation
 - Pre/post test designs with comparison groups
 - With only 2 data points it may be difficult to assess change at the
 - Improved design
 - Multiple data points before and/or after the intervention
 - Randomly assigning the groups/not selecting particular people into the intervention or the comparison/control group
 - Carefully monitoring events for both groups
 - Using identical testing/observation methods and trained data collectors for data collection

Collecting and Analyzing the Data

Step 3: Collecting and Analyzing the Data

- **Data collection** approaches are dependent on the question being answered
 - The time frame for the evaluation
 - The expertise of the evaluation team in data collection and data analysis
 - The purposes of the evaluation
 - Decision making may require more definitive data
 - Program improvement may require more enquiry and therefore lend itself to more readily to qualitative data

Data Collection Methods

QUANTITATIVE

- Surveys
 - Primary data
 - Secondary data(existing)
- Existing data sets
 - BRFSS
 - YRBS
 - NHANES
 - Hospital Discharge
 - SEER

QUALITATIVE

- Focus Groups
- Individual and Key Informant Interviews
- Document/Record Reviews
- Observation
- Written monthly reports
- Audio-visual approaches
 - Digital stories
 - Photovoice

Step 3: Collecting and Analyzing the Data

- **Data analysis** is dependent on the type of data collected
 - Quantitative (numerical)
 - e.g survey, log sheets, data bases
 - Data analysis software: Excel, SPSS, SAS etc.
 - Qualitative (word based)
 - e.g. photographs, transcriptions of audio materials, review of printed/written materials
 - Data coding and analysis software: Nvivo, AnsWer etc

Reporting the Results

Step 4: Reporting the Results

- Discuss reporting strategy with stakeholders
- Communicate findings to relevant audiences
 - Timely manner
 - Unbiased
 - Consistent
 - Appropriate
- Tailor report content for the audience
 - Board of Governors
 - Funders
 - Staff
 - Program Beneficiaries

Disseminating Results

- Effective Communication
 - Style
 - Tone
 - Message source
 - Credibility
 - Knowledge of the progress and product
 - Vehicle
 - Oral vs written
 - Format of information product

Evaluation in Grant-Writing

Framework for the Evaluation Component

The Evaluation Plan

Benefits of a Clear Plan

- Funders want to support well articulated programs
- Ensures everybody understands how the program fits in with the vision
- Transmits a clear and consistent message about the program's expected results
- Clarifies how the program or policy will be assessed
 - Articulates how program process and outcomes will be measured
 - Presents the evaluation design
 - Discusses the data collection and analysis strategy
- Presents a plan for reporting results
- Presents the personnel and level of expertise

Evaluation Plan Components

- Introduction
 - The rationale/purpose for the evaluation
 - The approach for the evaluation
 - Underlying philosophies or guiding principles associated
 - Purpose of the evaluation /stage of the program
 - Behavioral theories being used

Evaluation Plan Components

- Step 1
 - Describe the program. Provide an overview with the logic model that will guide the evaluation
- Step 2
 - Evaluation Questions and Indicators for Measurement of change
 - Process
 - Outcome
- Step 3
 - Approaches and methods for answering the evaluation questions
 - Data collection to ensure valid and reliable data

Evaluation Questions and Indicators Table Format

| | Evaluation Question | Indicator(s) /measure of change | Data Collection Method | Baseline Data /Current Status | Person responsible for data collection |
|-----|---|---|--|-------------------------------|--|
| 1.1 | Were procurement policies passed to improve healthy eating across educational institutions? | Procurement policies at educational institutions | Milestone Reporting Document review/ Key Informant Interview | No policies | Evaluation Team |
| 2.1 | Did student participation in National School Breakfast and National School Lunch programs increase following the implementation of the LPPW initiative? | Student participation in National School Breakfast and National School Lunch Programs | Document Review /student participation records | 20,000 students participating | Evaluation Team |

Evaluation Plan Components

- Step 4
 - Deliverables
 - Reporting the results of the evaluation to stakeholders
 - Public Meetings
 - Reports
 - Publishing results
 - Scientific journals
 - Practice journals
 - Conference presentations
 - Additional information
 - Time Line
 - Budget
 - Personnel and level of expertise

Applying the lessons:

An Evaluation Plan in Action



The Louisville Putting Prevention to Work Plan Evaluation

- Introduction
 - ARRA funding through DHHS and CDC to LMDPHW
 - Period March 2010 – March 2012
 - To assess the outcomes associated with the LPPW
 - The approach for the evaluation
 - Health Equity
 - Particular reference to 12 low income neighborhoods of West Louisville
 - Shovel ready projects: expectation to be able to see some outcomes
 - Logic model

The Louisville Putting Prevention to Work Plan Evaluation

Step 1 – Describe the Program

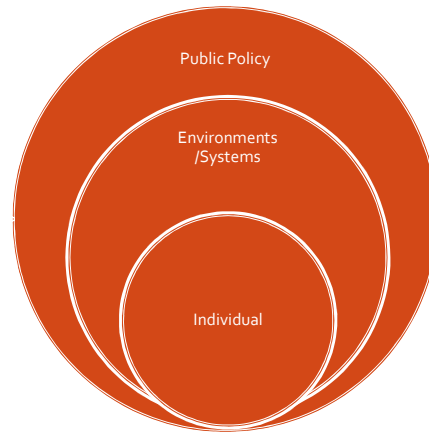
- Program activities outlined in Community Action Plan
 - Identified the area for the initiative as
 - Louisville Metro
 - 12 neighborhoods that have less access to resources
 - Lower social and economic status
 - High rates of chronic disease
 - Low access to opportunities for healthy nutrition and physical activity

Louisville Putting Prevention to Work

- Environmental, Systems, and Policy Changes based on MAPPS strategies
 - Environment and Systems
 - Schools & afterschool and childcare programs to improve nutrition and physical activity
 - Media/social marketing
 - Multiple channel media campaigns
 - Web-based
 - Print (billboards, bus wraps, posters, brochures)
 - Mass media (radio, TV)
 - Community nutrition and food access
 - Corner stores (12)
 - Community Gardens
 - Farmers Markets
 - Menu labeling
 - Breast feeding
 - Lactation clinics

Louisville Putting Prevention to Work

Media
Access
Point of Purchase
Promotion
Social Support



Louisville Putting Prevention to Work

- Environment and Systems
 - Community strategies to improve physical activity access
 - Walking trails
 - Complete streets
 - Buses equipped for carrying bicycles
 - Safety
 - Improved security in parts of Louisville Loop

Louisville Putting Prevention to Work

- Policies
 - Organizational policies to improve physical and nutrition systems
 - Breastfeeding policies in metro government and area hospitals
 - Nutrition policies to increase healthy eating in schools
 - Physical activity in schools and after-school programs
 - Improved access to opportunities for physical activity
 - TARC buses routes and bicycle racks

LPPW Logic Model

Louisville Putting Prevention to Work Initiative
March 2010 to March 2012

| Resources | Organizational, Community and Policy Change Strategies | Short term and Intermediate Outcomes | Long Term Outcomes |
|--|---|---|---|
| -Leadership -Partners -Funding -"Shovel Ready" Projects | -improving school-based nutrition, physical activity and wellness -improving community nutrition -improving community access to healthy foods -improving community access to physical activity -Social Marketing Campaign | -increased percent who value physical activity and healthy eating -increased percent who perceive they have access to and opportunities for physical activity and healthy living -increased percent with positive attitudes toward physical activity and healthy eating -increased percent with intention to be physically active and eat healthy -increased percent of people who are physically active -increased percent who are eating healthy | -increased social norms associated with physical activity and healthy eating -increased access to opportunities for physical activity and healthy nutrition for IDNs -Reduced incidence of obesity -Reduced Prevalence of obesity ↓ Leading to ----- -Reduced rates of disease and disability |

Evaluation Components

Steps 2 & 3 Identify the Evaluation Question

- Formative Evaluation
 - Media campaigns
 - How effective are media messages for specific populations?
- Process Evaluation
 - Assessing Context
 - What conditions exist in the IDNs that provide opportunity for physical activity and healthy eating?
 - Physical
 - GIS Mapping
 - Environmental scan – observation study
 - Social and cultural factors
 - Interviews, surveys and site visits

Evaluation Components

- Implementation
 - How well was the initiative implemented?
 - Monthly written reports
 - Milestone reporting forms
 - Policy reporting forms
- Information requested
 - Description of activities undertaken
 - Outputs
 - Materials produced; number of people trained
 - Reach of the programs and activities
 - Barriers and activities that minimize the barriers to achieve stated milestones
 - Success stories, “spin offs,” leverage of existing funds to expand reach and intensity

Evaluation Components

- Summative Evaluation
 - BRFSS/YRBS
 - How did physical activity and nutrition behavior change between spring 2011 to fall 2012?
 - Survey of 1,500 residents of Louisville
 - Family Study
 - How did members of individual families change as a result of the LPPW programs?
 - Focus groups with 40-60 families in 12 neighborhoods (IDNs)
 - Outcomes Survey
 - How effective were the strategies aimed at improving access to physical activity and healthy foods?
 - How did physical activity and nutrition behavior change between spring 2011 to spring 2012?
 - Pre/Post Survey of 500 residents in IDNs

Evaluation Components

- Leadership Study
 - What was the role of leadership in the implementation and outcomes of the LPPW initiative?
- Policy Study
 - How did policy impact outcomes associated with the LPPW initiative?

Evaluation Components

- Step 4
 - Deliverables
 - Publications (scientific journals, practitioners journals, newsletters etc.)
 - Conferences
 - Local (e.g KPHA)
 - National (e.g. APHA)
 - CDC
 - Federal Government

Additional Information

- Budget
 - Personnel
 - Supplies and Equipment
 - Incentives (focus groups/individual interviews)
 - Travel
 - Indirect costs (f&a)
- Personnel
 - Team of 7 evaluators with varying levels of expertise and skills in evaluation related areas in consultation with project staff at the Louisville Metro Department of Public Health and Wellness
- Time Line

Time Line

Time Line for completing evaluation data collection

Start date: March 19 2010

End date: March 18, 2012

| EVALUATION TASKS | Q2-2010 | Q3 -2010 | Q4-2011 | Q5-2011 | Q6-2011 | Q7-2011 | Q8-2012 |
|--------------------------------------|---------|----------|---------|---------|---------|---------|---------|
| | Jul-Sep | Oct-Dec | Jan-Mar | Apr-Jun | Jul-Sep | Oct-Dec | Jan-Mar |
| Quarterly Reports | X | X | X | X | X | X | X |
| BRFSS | | X | | | | | X |
| YRBS | | X | | | | | X |
| GIS Mapping | X | | | | | | X |
| Social Marketing Formative | X | X | | | | | |
| LPPW Outcomes Studies | X | | | | | | X |
| - Policy | X | X | X | X | X | X | X |
| - Leadership | | | X | | | | X |
| - Access | | | | X | X | | |
| - Family | | | | | | X | |
| LWWP Initiative Report (Mid-project) | | | | X | | | |
| LWWP Initiative Report (Final) | | | | | | | X |

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