Fundamentals of Evaluation for Public Health Programming

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Mission Statement

Established by the Tribes to advocate as the united voice of federally recognized American Indian and Alaska Native Tribes, NIHB seeks to reinforce Tribal sovereignty, strengthen Tribal health systems, secure resources, and build capacity to achieve the highest level of health and well-being for our People.
• This webinar is part of a series of capacity building activities for NIHB subawardees

• Recorded and posted online

• Questions
  ◦ Dedicated times
  ◦ Use the chat box

• Use the chat box for interactive questions

• Please mute your phone lines
Eureka! An evaluation culture has finally been grown in the lab!

Now if only we could figure out how to grow it in the real world.

Hey look, these guys are forming a subcommittee!
No, wait, they’re just disputing the results.
Objectives

By the end of the workshop, participants will be able to:

- Define common evaluation terms
- Explain the difference between outcome and process evaluation
- Describe methods for different evaluation
- Develop evaluation plans
- Identify resources to assist with evaluation
Agenda

• Welcome & Introductions
• What is Evaluation?
• Making Evaluation Relevant and Meaningful?
• Levels of Evaluation
• Data Collection Methods & Tools
• Evaluation Plans and Your Workplan
• Writing the Evaluation Plan
• Tips and Resources for Conducting Evaluation
• Questions & Answers / Adjourn
What is Evaluation?
Definition of Evaluation

The systematic application of methods to collect and analyze information about the activities, characteristics, and outcomes of programs with the intent of furthering its development and improvement.
It Is All Connected

Program Development

Program Implementation

Program Evaluation
Evaluation Cycle

Engage Stakeholders

Describe the Program

Focus the Evaluation Design

Gather Credible Evidence

Justify Conclusions

Ensure Use and Share Lessons Learned

Utility
Feasibility
Propriety
Accuracy
Relationship Between Planning, Implementation, and Outcomes
Implications of Not Knowing How an Intervention Was Implemented

Planning ➔ ???????? ➔ Outcomes
Making Evaluation Relevant and Meaningful
How do we think about evaluation?
Evaluation Stakeholders

- Different people have different vested interests in programs
  - Who are your stakeholders?
  - Who cares about your programs?
### “Why Do Evaluation” Tic Tac Toe?

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<th>Improve implementation</th>
<th>Accountability</th>
<th>Effectiveness</th>
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<tbody>
<tr>
<td>Manage resources</td>
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<td>Document achievements</td>
<td>Services reaching population(s)</td>
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<td>Justify spending</td>
<td>Chart program development</td>
<td>Create evidence base</td>
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Modern Day Storytelling
It is not about making evaluation relevant, but understanding the relevance of evaluation
Levels of Evaluation
Formative Evaluation

- Collects data describing the needs of the population and the factors that put them at risk

Answers questions such as:

- How should the intervention be designed or modified to address population needs?
- Is this standardized program appropriate for the needs of our community?
Process Monitoring

- Collects data describing the characteristics of the population served, the services provided, and the resources used to deliver those services

Answers questions such as:

- What services were delivered?
- Who was served?
- What resources were used?
Process Evaluation

- Collects and analyzes detailed data about how the program was delivered, differences between the intended population and the population served, and access to the intervention.

Answers questions such as:

- Was the intervention implemented as intended?
- Did the program reach the intended audience?
- What barriers were experienced in accessing the program?
- How did was the quality of program perceived?
Outcome Monitoring

- Collects information about client outcomes before and after the intervention, such as knowledge, attitudes, skills, or behaviors

Answers questions such as:

- What changes took place?
- What changes did our participants experience?
- Did the expected outcomes occur?
Outcome Evaluation

- Collects data about outcomes before and after the intervention for clients as well as with a similar group that did not participate in the intervention being evaluated.

Answers questions such as:

- Did the program cause the outcomes?
- How replicable is this?
Impact Evaluation

- Collects data about health conditions at the reservation, state, regional, and/or national levels

Answers questions such as:

- What long-term effects do all of the related programming have on the health condition?
Questions?
WHAT TYPE OF EVALUATION ARE THEY DOING??
Scenario

A Tribe is conducting group classes to teach male and female youth under the age of 21 about the prevention of the Zika Virus. The Tribe plans to provide three, one-hour, after-school sessions to the youth to cover basic information about the virus, its transmission, and how it can be prevented – both through mosquito vectors and sexual contact. The intended outcomes are to increase knowledge about the prevention of Zika transmission, and ultimately decrease the number of diagnosed Zika cases.
So what type of evaluation are they doing when...

- Tribal health staff administer a knowledge and behavior questionnaire to the youth before and after the class. The results of these two surveys are compared to see if there were changes in knowledge.
  - A. Formative Evaluation
  - B. Process Monitoring
  - C. Process Evaluation
  - D. Outcome Monitoring
  - E. Outcome Evaluation
So what type of evaluation are they doing when...

- Tribal health staff administer a knowledge and behavior questionnaire to the youth before and after the class. The results of these two surveys are compared to see if there were changes in knowledge.

- D. Outcome Monitoring
So what type of evaluation are they doing when...

- Tribal staff keep a record of the number of youth that attend each session, as well as their age, gender, race, and ethnicity.
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  - C. Process Evaluation
  - D. Outcome Monitoring
  - E. Outcome Evaluation
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• Tribal staff keep a record of the number of youth that attend each session, as well as their age, gender, race, and ethnicity.

  ◦ B. Process Monitoring
So what type of evaluation are they doing when...

- Tribal health staff conduct a needs assessment to learn more about the factors that put their Tribal population at risk for Zika. They use this information to plan their educational sessions with the youth in the community.
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  - B. Process Monitoring
  - C. Process Evaluation
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  - A. Formative Evaluation

Correct
Building Upon One Another

1. Planning Effective Programs and Interventions
2. Determining what Services were Delivered to Whom
3. Determining if Program was Implemented as Intended
4. Determining if Program Achieved its Outcome Objectives
5. Determining if Program Caused Outcomes
6. Determining Broader Impacts

- Impact Evaluation
- Outcome Evaluation
- Outcome Monitoring
- Process Evaluation
- Process Monitoring
- Formative Evaluation
Evaluation Related to Planning, Implementation, and Outcomes

Planning → Formative Evaluation

Implementation → Process Monitoring, Process Evaluation

Outcomes → Outcome Monitoring, Outcome Evaluation, Impact Evaluation
Data Collection

Methods & Tools
Why?

- Since different levels seek different information
  - Different methods and tools must be used
  - Different times
- Still all about information gathering
- All become components of an evaluation plan
Order of Evaluation

- Formative Evaluation
- Process Monitoring
- Process Evaluation
- Short Term Outcome Monitoring
- Long Term Outcome Monitoring
Things to Consider

• What method are we going to use?
• What instrument does this require?
• When can it be implemented?
• Who will implement it?
WHAT EVALUATION METHODS ARE THEY USING??
Scenario

A Tribe is conducting a community wide campaign to reduce the amount of vehicle miles traveled by their Tribal members in hopes of raising awareness of the impact of driving on the environment, and ultimately reducing carbon emissions. The campaign includes public service announcements, a social marketing effort, and a family-based competition in which the family that registers with the campaign and shows the greatest percent decrease in vehicle miles traveled over three months will get a free high efficiency hot water heater and free solar panels installed on their home.
So what method(s) are they using when...

- Tribal health staff administer a knowledge and behavior questionnaire to Tribal members before they launch the social marketing campaign and then again after the campaign ends. They also give the same questionnaire to members of a neighboring Tribe who did not see the campaign. The results of these questionnaires are compared to see if there were changes in knowledge and if it was different for the two groups.
So what method(s) are they using when...

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So what method(s) are they using when...

- Tribal health staff employ a consultant to sit on and observe staff registering families and their cars for the competition for the free hot water heater and solar panels. The consultant is asked to make sure that all families are asked the same questions, and the proper paperwork is completed for all families. The consultant has a quality assurance checklist that he/she is using to conduct his/her observations.
So what method(s) are they using when...

- Tribal health staff employ a consultant to sit on and observe staff registering families and their cars for the competition for the free hot water heater and solar panels. The consultant is asked to make sure that all families are asked the same questions, and the proper paperwork is completed for all families. The consultant has a quality assurance checklist that he/she is using to conduct his/her observations.
Examples Data Collection

**Process Monitoring**
- Sign-in Sheets
- Demographic & Participant Information
- Participant Counts

**Process Evaluation**
- Satisfaction Surveys & Questionnaires
- Focus Groups
- Comparison of what happened vs intent

**Outcome Monitoring**
- Pre-post Tests on Knowledge, Attitudes, etc.
- Long term Follow-up

**Outcome Evaluation**
- Experimental and Control Groups
- Replication
- Using Same Outcome Monitoring
Selecting a Method

- Methods that might be used to answer the question
- Assumptions or conditions for this method to be viable
- Resources needed to implement this method
- Limitations of this method
Questions?
Evaluation Plans and Your Workplan
What Do Evaluation Plans Do?

- Develop a conceptual model of the project and identifies key evaluation points
- Create evaluation questions and defines measurable indicators and measures
- Develop an appropriate evaluation design
- Outline data collection processes
Potential Components of an Evaluation Plan

- Purpose
- Evaluation Question
- Indicator/ Performance Measure
- Method
- Data Source / Respondents

- Timeline
  - Frequency
- Responsibility
- Instruments Needed
- Cost Considerations (optional)
- Targets / Benchmarks
- Analysis
## Evaluation Plan Template

<table>
<thead>
<tr>
<th>Evaluation Questions</th>
<th>Indicators/Measures</th>
<th>Targets</th>
<th>Data Sources</th>
<th>Methods</th>
<th>Frequency</th>
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Linking Logic Models, Workplans and Evaluation Plans

• All describe what we are doing (or intend to do)
• It only makes sense that they work together and intersect
### Comparing the Three

<table>
<thead>
<tr>
<th>WORKPLAN</th>
<th>EVALUATION PLAN</th>
<th>LOGIC MODEL</th>
</tr>
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<tbody>
<tr>
<td>Describes the work you are doing to do</td>
<td>Describes how you are going to evaluate what you are going to do</td>
<td>Describes the higher level logic behind a project to link work and outcomes</td>
</tr>
<tr>
<td>Normally includes:</td>
<td>Normally includes:</td>
<td>Normally includes:</td>
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<tr>
<td>• Goals</td>
<td>• Evaluation questions</td>
<td>• Problem Statement</td>
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<tr>
<td>• Objectives</td>
<td>• Indicators/Measures</td>
<td>• Inputs</td>
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<tr>
<td>• Activities</td>
<td>• Methods</td>
<td>• Activities</td>
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<tr>
<td>• Timelines</td>
<td>• Sources</td>
<td>• Outputs</td>
</tr>
<tr>
<td>• Responsible Parties</td>
<td>• Timelines</td>
<td>• Outcomes</td>
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Order of Creation

- Logic Model
- Workplan
- Evaluation Plan
- Budget
Using the Logic Model to Construct a Workplan

• Using the activities component, begin to construct incremental tasks needed to accomplish each activity

• Construct a Gantt Chart to supplement the workplan

• Doing the Workplan will also help you to validate how many staff are needed to accomplish each task and activity

• The activities can then be grouped into objectives and goals
  ◦ Which should align with the outcomes in the logic model
Using a Workplan to construct an Evaluation Plan

• Ask yourself,
  ◦ “If we do this activity, how will we be able to prove it?”
  ◦ “How will we know when we have accomplished the objective?”

• Will help to determine where you need process-based methods versus outcome-based methods

• Look at the timeline for the workplan and make sure that you have time to collect and analyze data
Writing the Evaluation Plan
## Evaluation Plan Template

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1. Writing Evaluation Questions

• Broad general questions that answer “What do we want to know?”
  ◦ Derived from the purpose of the evaluation
• Used to construct and guide the plan
• Maximum of 5-7 main questions
  ◦ The funder may have requirements
• Can have process and outcome-based evaluation questions
Kinds of Process Evaluation Questions

• Scope & Scalability
  ◦ How many people received the benefit of [activity A, B, & C]?

• Faculty & Staff
  ◦ How has the expertise of staff increased as a result of [activity A]?

• Systems & Efficiency
  ◦ How timely were [activity A, B & C] delivered?
  ◦ How have the processes changed as a result of [activity A, B & C]?
  ◦ How effective were our recruiting methods in meeting our targets?

• Satisfaction
  ◦ How satisfied were stakeholders with [activity A, B & C]?
Kinds of Outcome Evaluation Questions

• Cause and Effect
  ◦ To what extent has \textit{activity A} contributed to \textit{outcome X}?

• Collaboration
  ◦ To what extent has the collaboration of \textit{Tribes/Programs A and B} contributed to \textit{outcome X}?

• Relevance & Effectiveness
  ◦ How has the intervention satisfied the needs of the population concerned?
  ◦ How has the intervention satisfied the intended outcomes?

• Complementarity
  ◦ To what extent is the intervention compatible with or contrary to the objectives of other Tribes, initiatives, policies, etc.?
Kinds of Formative Evaluation Questions

• Population
  ◦ Who is at the greatest risk for a \( \textit{health condition} \)?)

• Risk and Needs
  ◦ What is the most pressing health concern for \( \textit{population} \)?)
  ◦ What health disparities exist in the community?
  ◦ What are \( \textit{population} \) doing that is placing them at risk?

• Contributing and Contextual Factors
  ◦ Who has influence over health decisions?
  ◦ What barriers exist to changing behavior(s)?
  ◦ What is facilitating behavioral change?

• Other
  ◦ What health success stories exist?
Types of Questions to Avoid

- Methods
- Procedures
Some evaluation questions provide information that is...

Less useful for improving the intervention

More useful for improving the intervention

Some evaluation questions are...

Harder to answer

Easier to answer
When Selecting Evaluation Questions

- Questions must be selected for the probable usefulness of answers that the evaluation will provide:
  - Interests those stakeholders who have to implement the intervention OR design a new or similar intervention
  - Will probably provide useful lessons applicable to others
  - Will be useful in reporting for accountability purposes
  - Is not known in advance

- Questions also have to be selected for their feasibility. Feasibility is low if the question involves too many problems, for example:
  - The issues can be understood with relatively non-complex analysis
  - It does not require too many staff or too much money to obtain
  - Relations of cause and effect are vague and the experts are unfamiliar with them.
  - The available information is very poor.
  - Access to the field and new data collection will involve major problems.
2. Writing Evaluation Indicators

• Ask yourself what ‘indicates’ success?

• Usually reflected by some manner of increase or decrease

• Examples
  ◦ Increase in the number of Zika prevention kits distributed
  ◦ Increase in the number of partners engaged
  ◦ Decrease in the number of Zika cases reported
  ◦ Decrease in amount of vehicle miles traveled per person
2a. Writing Evaluation Measures

• If there is not a point of comparison from which you can generate an ‘increase’ or ‘decrease’, then maybe you use evaluation measures
  ◦ They do not indicate an increase or decrease and simply speak to on what you will gather data

• Examples
  ◦ The number of Zika prevention kits distributed
  ◦ The number of partners engaged
  ◦ The number of Zika cases reported
  ◦ Amount of vehicle miles traveled per person
WE ❤ METRICS

Indicators

Measures
Use your Evaluation Questions

How many people attended the community coalition meetings during the 2nd quarter?

Increase in the number of people attending the coalition meetings from a previous quarter

Number of attendees at the coalition meetings during the 2nd quarter
Use your Evaluation Questions

How did participants apply the knowledge they learned during the educational sessions?

The manner in which participants are applying the knowledge gained to their own skill set or their work tasks
We are designing a project that will target methamphetamine prevention through the implementation of a structured 8-session intervention. We will recruit 10-12 youth to attend the intervention sessions and go through all 8 sessions. The intervention is designed to teach them about methamphetamine and raise their confidence to say no to peer pressure to use. We will have a series of 3 total cohorts (for a total of 30-36 youth).
3. Targets

• Targets are simply the goals that you wish to achieve.
National Indian Health Board

Do the indicators and targets look or sound familiar?

WHERE ELSE MIGHT YOU SEE THESE?
4 & 5. Sources and Methods

• Data Source
  ◦ Refers to the individuals or materials that will be provided the data
    ◦ Specific people (i.e., intervention participants, Tribal leaders, practitioners)
    ◦ Materials (i.e., client charts, data reports, journal articles)
  ◦ Primary and Secondary data are valid, but should be mentioned as such in the plan

• Data (Collection) Method
  ◦ Refers to the strategy that will be used to get the data from the source(s)
    ◦ Focus groups, surveys, chart reviews, observations, literature review, etc.
What is an Instrument?

- An instrument is what will be applied to the source while implementing the method(s)
  - Focus group questionnaire
  - Survey questions
  - Observation guide
  - Quality assurance checklists
- For process monitoring, your instruments and methods are not worth separating
  - Sign-in sheets
- For secondary data sources, there is usually no instrument
  - Literature review, surveillance data
Considerations for Source

• Are you allowed to access that source?
  ◦ Youth, charts, etc.

• Whose permission do you need to get?

• Do you need to notify anybody to let them know that you are accessing this data?

• Does data from that specific group make sense for what you want to achieve?

• Are there enough people or materials to collect sufficient amount of data?
Considerations for Methods

• What training or skills-building will be required to administer this method?
• Do the staff have the expertise to do this already or do we hire or train staff?
• Do you need to create new instruments to administer this method?
• What additional resources do you need to plan for administering this method?
• Will your source be amenable to this method?
Considerations for Instruments

• Do you have the resources to create the instrument?
• How will you test the instrument?
• How will you refine the instrument?
• How will you ensure your staff know how to use the instrument?
• Who need to approve the instrument?
Remaining Components of the Evaluation Plan

• Frequency
  ◦ How often will you implement the method?

• Timeframe
  ◦ What is your start and finish time for implementing this method?

• Analysis
  ◦ What manner of analysis will be conducted on the data collected?

• Person(s) Responsible
  ◦ Who is responsible for:
    ◦ Collecting the data
    ◦ Analyzing the data
Tips & Resources for Conducting Evaluation
Engage Stakeholders

• Identify who the stakeholders are

• Write activities in your work plan to engage stakeholders
  ◦ Early on
  ◦ Know what you are asking of them

• Create dissemination strategies for evaluation findings
  ◦ Both internal and external
Strategies to Promote Utilization

- Clearly identify the intended users of the evaluation data
- Identify evaluation questions meaningful to the intended users
- Decide how the data will be used before the evaluation is conducted
- Present data in a user-friendly format
- Define clear responsibilities for data collection, analysis, storage and reporting
- Review evaluation data regularly during project implementation
Dissemination

- Online
  - Web
  - Social media
  - Blog
  - Published reports or white papers
- Articles
- Funder Reports

- Conference presentations
- Community presentations
- Stakeholder Meetings
- Brochures
- With other projects
What makes for good evaluation?

• **Utility**: This ensures that the evaluation is collecting credible, useful, timely information. The purpose of an evaluation is to determine what works and how, and to inform decision-making. If it doesn’t address current needs and realities, then there’s really no sense in moving forward.

• **Feasibility**: This principle prioritizes evaluation that is practical, cost-effective and politically viable.

• **Propriety**: This relates to legal and ethical standards that should govern an evaluation, including careful consideration of those involved as well as those who might be impacted by the results.

• **Accuracy**: The data yielded from an evaluation must be accurate in order to be useful (and to ensure your organization’s credibility). This is connected to the rigor of your evaluation plan, data collection methods, and willingness to report the bad just as much as the good.
Evaluation Technical Assistance Resources

- National Indian Health Board
- AIHBs
- NCUIH
- Tribal Epidemiology Centers
- TCU and university faculty
- CDC
- Websites
- Volunteers (e.g., skilled board members)
- Program officers
- Evaluation consultants
Online Resources

• CDC

• Community Tool Box
  ◦ http://ctb.ku.edu/en

• FSG (consulting firm)
• Evaluation is only valuable and relevant if it is used
• Evaluation should be part of a program implementation
• All team members should be involved in evaluation efforts
• Planning is key

Evaluation is FUN!
Questions?

CHAT BOX
Thank you for your attention and energy!

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