10 Years After the Centers for Disease Control and Prevention’s Framework for Program Evaluation in Public Health: Reflections and Recommendations

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Learning Objectives

• Describe the purpose of the document and process to date
• Lay out the framework and evaluation standards
• Identify draft lessons learned and recommendations
• Discuss opportunities for applying framework principles in injury programs
Framework for Program Evaluation in Public Health
10-Year Anniversary of the CDC Evaluation Framework

- Rationale for revisiting framework
- Purpose of document
  - Lessons from the field
  - Recommendations
  - Specific additions
  - Intended users/uses
- Opportunities for input
  - CDC
  - External feedback
CDC Framework Evaluation Work Group

- Center for Global Health (CGH)
- Financial Management Office (FMO)
- National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP)
- National Center for Environmental Health (NCEH)
- National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP)
- National Center for Injury Prevention and Control (NCIPC)
- National Institute for Occupational Safety and Health (NIOSH)
- Office of the Director (OD)
- Office of Public Health Preparedness and Response (OPHPR)
What Is Program Evaluation?

“The systematic collection of information about the activities, characteristics, and results of programs to make judgments about the program, improve or further develop program effectiveness, inform decisions about future programming, and/or increase understanding.”

Michael Quinn Patton

Relationship Between Research and Program Evaluation

Source: John LaValle, Clairemont Graduate University
Continuous Quality Improvement

- **Planning**—*What* actions will best reach our goals and objectives?
- **Performance measurement**—*How* are we doing?
- **Evaluation**—*Why* are we doing well or poorly?
“The most basic question is not what is best but who shall decide what is best.”

— Thomas Sowell
Engage Stakeholders: Key Messages

• Possesses vested interest in the program or evaluation
• Provides varied perspectives on program, implementation, progress
• Makes explicit the need for participatory approach
• Increases likelihood of program improvement, support for evaluation, use of evaluation findings
• May be challenging and time consuming but critical to sustain
Engage Stakeholders: Lessons Learned and Recommendations

• Not possible to respond to all needs of every stakeholder—narrow priorities/identify primary users
• Challenges in obtaining initial involvement and sustaining engagement—communicate frequently, solicit information needs, assess satisfaction
• Level of involvement may change—clarify roles and expectations
• Essential to identify and address issues of trust
Engage Stakeholders: More Recommendations

• Form an evaluation work group to provide a forum for engagement and discussion
• Explicitly address overall cultural context
• Help stakeholders understand the potential benefits of diverse perspectives
• Use Patton’s levels of stakeholder involvement*
  – Inform, consult, involve, collaborate, empower
• Demonstrate that stakeholder input has been considered

### Applying the Program Evaluation Standards: Engage Stakeholders

<table>
<thead>
<tr>
<th>Standard</th>
<th>Questions</th>
</tr>
</thead>
</table>
| **Utility** | • Who will use the results of the evaluation?  
               • Who can influence the use of the findings? |
| **Feasibility** | • How much time and effort can be devoted to stakeholder engagement?  
                         • What is a reasonable time/burden commitment for each stakeholder? |
| **Propriety** | • Which stakeholders need to be consulted to conduct an ethical evaluation?  
                          • Has the potential for conflict of interest been addressed? |
| **Accuracy** | • How broadly do we need to engage stakeholders to accurately assess the program? |
Describe the Program: Key Messages

• Provide a statement that accurately and concisely describes the program
• Clarify the program’s goals and objectives
• Identify key players/beneficiaries
• Specify activities needed to meet outcomes
• Clarify the causal relationships between activities and outcomes
• Explicitly acknowledge the contexts and assumptions that could affect program and evaluation
One Option: Logic Models

- Inputs
- Activities
- Outputs
- Short-term Effects/Outcomes
- Intermediate Effects/Outcomes
- Long-term Effects/Outcomes

Context
Assumptions
Stage of Development
<table>
<thead>
<tr>
<th>Inputs</th>
<th>Early Activities</th>
<th>Later Activities</th>
<th>Outputs</th>
<th>Early Outcomes</th>
<th>Later Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds</td>
<td>Outreach</td>
<td>Do case management</td>
<td>Pool (#) of eligible kids</td>
<td>Affected kids get medical treatment</td>
<td>Poisoning reduced</td>
</tr>
<tr>
<td></td>
<td>Screening</td>
<td>Refer for medical treatment</td>
<td>Pool (#) of screened kids</td>
<td>Family performs in-home techniques</td>
<td>Developmental slide stopped</td>
</tr>
<tr>
<td></td>
<td>Identifying of elevated kids</td>
<td>Train family in in-home techniques</td>
<td>Referrals (#) to medical treatment</td>
<td>Lead source identified</td>
<td>Quality of life improves</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assess environment</td>
<td>Pool (#) of leaded homes</td>
<td>Environment cleaned up</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Refer house for cleanup</td>
<td>Referrals (#) for cleanup</td>
<td>Lead source removed</td>
<td></td>
</tr>
<tr>
<td>Trained staff</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal authority</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Source: Tom Chapel, CDC, 2005
Injury Control Research Centers (ICRC) Funding Opportunity Announcements (FOAs) Logic Model

INPUTS
National Center for Injury Prevention and Control (NCIPC) Resources
- Dollars
- Program Guidance
- Management
- Staffing
- Authority
- Credibility
- Advocacy
- Research Agenda

Other Partner Resources

Injury Control Research Center (ICRC) Resources
- Administrative Support
- Leveraged Resources
- Dollars
- Networks
- Credibility
- Faculty & Staff
- Research Facilities
- Scientific Knowledge
- Students

ACTIVITIES
- Conduct Research & Interventions
  - Small Projects
  - Large Projects
  - Community-based Projects
- Collaborations
  - Interdisciplinary
  - Public Sector
  - Private Sector
- Core Activities
  - Administration
  - Management
  - Evaluation
  - Library
  - Statistical Support
  - Media Communication
  - Seed Projects
  - Train Professionals & Students
  - Dissemination
  - Translation
  - Technical Assistance
  - Consultation
  - Advocacy

OUTPUTS
- Scientific Publications & Presentations
- Scientific Tools
- Public Health Applications
- Trained Practitioners & Professionals
- Surveillance Systems
- Service
- Awards

OUTCOMES
- Behavior Modification
- Acute Care and Rehabilitation
- Regulations
- Legislation

Assumptions:
- The ICRC program is more than the sum of each center’s work. It is the resulting synergy and innovations from each center’s activities, outputs, and outcomes that has built the injury field.
- Injury prevention is best achieved through long-term strategies that are implemented across the social ecological model (SEM).
- Because reductions in injury-related morbidity and mortality take decades to occur, outputs and intermediate outcomes serve as surrogate measures of longer term outcomes.
Eastside HIV/AIDS Prevention Causal Roadmap

- Develop materials and messages
  - Select and train youth as peer educators
- Do formal presentations
- Do youth-led discussions
- Do 1-1 street education
- Distribute educational materials
  - Conduct community campaign: Public Service Announcements, Billboards, Buscards, Posters, Brochures
- Do small group sessions

- Material shared at home
- Parents discuss and reinforce messages
- Supportive environment and community norms
  - Community KAB changes
- Changes in knowledge, Attitudes (KAB), and beliefs of target youth
- Decreased HIV risk behavior of target youth
- Decreased incidence of HIV and AIDS
Limitations to Logic Models

• Snapshot in time, not dynamic changes over time
• CDC logic models tend to be linear—may oversimplify programs
• Difficult to determine strength of relationship between different components
• Not every logic model is evidence based but does reflect context and assumptions
• Logic modeling is an art! What level, what’s important, how much detail?
• Time consuming to create and maintain over life of program
Describe the Program: Lessons Learned and Recommendations

• Role of the evaluator may vary—remain flexible
• Clear criteria for accuracy, comprehensiveness, quality of program description—possible proxies
• Early stakeholder participation in describing core components—better evaluation
• Comparison of ideal or official descriptions with direct observations of actual activities
• Other tools for synthesizing program components—logic framework, causal loop diagram, process map
<table>
<thead>
<tr>
<th>Standard</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility</td>
<td>• Is the level of detail appropriate for the intended use(s)?</td>
</tr>
<tr>
<td></td>
<td>• Is the description clear to those who need to use the information to</td>
</tr>
<tr>
<td></td>
<td>make decisions related to the evaluation?</td>
</tr>
<tr>
<td>Feasibility</td>
<td>• Does the description include evidence of the relationship</td>
</tr>
<tr>
<td></td>
<td>between programmatic activities and intended outcomes?</td>
</tr>
<tr>
<td>Propriety</td>
<td>• Is the description a fair presentation of relevant components?</td>
</tr>
<tr>
<td></td>
<td>• Does the description include sufficient detail for users to critically</td>
</tr>
<tr>
<td></td>
<td>assess the content?</td>
</tr>
<tr>
<td>Accuracy</td>
<td>• Would diverse stakeholders consider the description a reasonable</td>
</tr>
<tr>
<td></td>
<td>representation of the program?</td>
</tr>
</tbody>
</table>
Focus the Evaluation Design
Focus the Evaluation Design: Key Messages

• Identify the *evaluand* in relationship to the program as depicted in the logic model

• Narrow the evaluation questions

• Make decisions regarding the evaluation design and data collection methods
Big “P” or Small “p”?

• What level of the program to evaluate?
• Big “P” level: What is produced across all of the program’s activities?
• Small “p” level: What does each program component produce?
• Project level: What has each project or intervention produced?
Focus the Evaluation Design: Lessons Learned

• Disconnect between design/data collection methods from purpose and evaluation questions

• Evaluation questions unrelated or inappropriate for program stage, evaluation purpose, and intended users/uses

• Negative effects on quality of evaluation and utility of findings

• Program changes due to stakeholder participation
Focus the Evaluation Design: Recommendations

• Differentiate between evaluation purpose and the purpose/intent of the program
• Relate the evaluation purpose to the stage or maturity of the program
  – What questions are feasible to answer?
• Limit evaluation questions to a few issues
• Plan and implement as appropriate to program context
Focus the Evaluation Design: More Recommendations

• Revisit evaluation purpose in planning, implementation, and use of findings

• Take stock of fiscal and human resources
  – Funding
  – Expertise
  – Stakeholder or organizational support
  – Level of quality/credibility

• Identify possible threats, challenges, and opportunities up front
Applying the Standards: Focus the Evaluation Design

<table>
<thead>
<tr>
<th>Standard</th>
<th>Questions</th>
</tr>
</thead>
</table>
| Utility     | • What is the purpose of the evaluation?  
              • Who will use the evaluation results?  
              • How will the evaluation results be used? |
| Feasibility | • What is the program’s stage of development?  
              • How measurable are the components in the proposed focus? |
| Propriety   | • Do the focus and design consider the effects of the evaluation on stakeholders? |
| Accuracy    | • Is the design specific enough to answer the evaluation questions? |
STANDARDS FOR "GOOD" EVALUATION

- Utility
- Accuracy
- Feasibility
- Propriety

Steps in Evaluation

- Engage Stakeholders
- Describe the Program
- Focus the Evaluation Design
- Justify Conclusions
- Ensure Use and Share Lessons Learned

Gather Credible Evidence
Gather Credible Evidence: Key Messages

• Credibility of evidence depends on context and setting
• Strive for level of quality that meets stakeholders’ thresholds
• Aspects of data collection that affect credibility
  – Indicators
  – Sources of evidence
  – Quality
  – Quantity
  – Logistics and procedures
Gather Credible Evidence: Lessons Learned

• Obtaining critical evidence starts in evaluation planning
• Using existing data sources when possible can maximize resources
• Credible evidence exists on a continuum
• Differences between attribution and contribution
Gathering Critical Evidence: Recommendations

- Refer to evaluation purpose, questions, methods, and stakeholder values to ensure data are useful and relevant.
- Form an evaluation advisory group to guide planning and implementation.
- Acknowledge exchanges between scientific and service demands.
- Approach data collection and analysis with goal of obtaining valid interpretations for intended use.
## Applying the Standards: Gather Credible Evidence

<table>
<thead>
<tr>
<th>Standard</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility</td>
<td>• Have existing data sources been considered prior to new data collection?</td>
</tr>
<tr>
<td></td>
<td>• Will specific methods or data sources enhance the credibility of the data with stakeholders?</td>
</tr>
<tr>
<td>Feasibility</td>
<td>• Can proposed data collection and analysis be implemented within the time line and budget?</td>
</tr>
<tr>
<td></td>
<td>• Are the methods consistent with the culture and characteristics of the participants (language, literacy, access to technology)?</td>
</tr>
<tr>
<td>Propriety</td>
<td>• Do issues of safety or confidentiality exist that must be addressed?</td>
</tr>
<tr>
<td>Accuracy</td>
<td>• Is a quality assurance plan in place to check the quality of data?</td>
</tr>
<tr>
<td></td>
<td>• Does data collection address how good the findings need to be?</td>
</tr>
</tbody>
</table>
Justify Conclusions

“Don’t accept your dog’s admiration as conclusive proof that you are wonderful.”

— Ann Landers
Justify Conclusions: Key Messages

• Need for explicit process to turn data into meaningful, useful information that meets stakeholder needs
• Includes managing, analyzing, and synthesizing data to generate findings; drawing conclusions; and making recommendations
• Linking recommendations back to evidence
Linking Data to Evidence-Based Recommendations

- Engage Stakeholders
- Logic Model
- Evaluation Plan
  - Data Collection Plan
  - Data Analysis Plan
- Evidence
- Recommendations
- Data
- Findings

Source: Mary Odell Butler, formerly with Battelle Memorial Institute, 2006
Justify Conclusions: Lessons Learned

• Failure to consistently link opportunities and processes to planning and implementation
  – Sustained attention to stakeholder perspectives and values

• Evaluation ends after data analysis and presentation of findings
  – Translation of information to feasible, meaningful recommendations for action
Justify Conclusions: Recommendations

• Maintain realistic dialogue with stakeholders about what program can/cannot deliver
• Articulate trade-offs among methodological rigor, comprehensiveness, timeliness, cost
• Provide summary of anticipated limitations when accommodating perspectives and values
• Allocate time for building consensus on conclusions
Justify Conclusions: More Recommendations

• Discuss utility of recommendations as related to changes in funding, political environment, program scope of work, etc.
• Differentiate between low-hanging fruit and ideal recommendations for the program
• Prepare for possibility of unanticipated results
• Summarize rationale and anticipated effects of recommendations
Applying the Standards: Justify Conclusions

<table>
<thead>
<tr>
<th>Standard</th>
<th>Questions</th>
</tr>
</thead>
</table>
| Utility   | • Have the perspectives, procedures, and rationale used to interpret the findings been described clearly?  
• Have different interpretations of the findings been considered?  
• Do the stakeholders deem the conclusions useful for taking action regarding the program? |
| Feasibility | • Is the approach to analysis and interpretation appropriate to the level of expertise and resources?  
• Are the recommendations realistic for the program to implement?                                                 |
| Propriety | • Are the conclusions and recommendations reflective and respectful of key stakeholders, including those served by the program?  
• Have the standards and values that define success taken into account those stakeholders most affected by the program? |
| Accuracy  | • Can the conclusions explicitly be justified?  
• Do the stakeholders understand the conclusions? |

Ensure Use and Share Lessons Learned
Ensure Use and Share Lessons Learned: Key Messages

• Strategically plan how to use findings from the beginning and throughout evaluation

• Reinforce purpose of evaluation as tool for program improvement

• Communicate in an accessible format
Ensure Use and Share Lessons Learned: Lessons Learned and Recommendations

• Underuse of evaluation findings and recommendations
• Differentiate among types of use
  – Findings use
  – Conceptual use
  – Process use
Ensure Use and Share Lessons Learned: Recommendations

• Enhance use through a guided process
  – Identify potential obstacles to using findings and recommendations
  – Articulate an explicit process for follow-up
  – Direct attention to specific tasks that promote use in planning and implementation
Applying the Standards: Ensure Use and Share Lessons Learned

<table>
<thead>
<tr>
<th>Standard</th>
<th>Questions</th>
</tr>
</thead>
</table>
| **Utility** | • Have significant midcourse findings and reports been shared with users to facilitate timely use?  
• Has the evaluation been planned, conducted, and reported in a manner that encourages follow-through by stakeholders? |
| **Feasibility** | • Are the findings communicated in formats appropriate given the available resources for the evaluation and the audiences? |
| **Propriety** | • Have the evaluation findings (including limitations) been made accessible to the appropriate stakeholders? |
| **Accuracy** | • Do evaluation reports impartially and fairly reflect evaluation findings? |
Program Evaluation Resources

• American Evaluation Association
  http://www.eval.org

• Joint Committee on Standards for Educational Evaluation
  http://www.jcsee.org

• Kellogg Foundation Evaluation Handbook
  http://www.wkkf.org/~media/10BF675E6D0C4340AE8B038F5080CBFC.ashx
More Resources

• Harvard Family Research Project
  http://www.gse.harvard.edu/hfrp/

• University of Wisconsin-Extension
  http://www1.uwex.edu/ces/lmcourse

• Innovation Network
  http://innonet.org
Expected competencies of highly performing program evaluation staff are described in the following chart. The numerical ratings are based on the following scale of ability or command of the analytic service or product.

<table>
<thead>
<tr>
<th>Competency</th>
<th>New Evaluator</th>
<th>Senior Evaluator</th>
<th>Program Manager</th>
<th>Senior Advisor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Evaluation Skills</strong></td>
<td></td>
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</tr>
<tr>
<td>Basic research techniques</td>
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<tr>
<td>Logic models</td>
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<td>5</td>
<td>5</td>
<td>4</td>
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<td>Case studies</td>
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<tr>
<td>Surveys</td>
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<td>Instrument development</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>2</td>
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<tr>
<td>Mail survey administration</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>2</td>
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<tr>
<td>Telephone survey administration</td>
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<td>5</td>
<td>4</td>
<td>2</td>
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<td>On-line survey administration</td>
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<td>5</td>
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<td>Focus groups</td>
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<td>5</td>
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<td>Types of evidence</td>
<td>3</td>
<td>5</td>
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<td>Graphics</td>
<td>5</td>
<td>5</td>
<td>4</td>
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<td>Simple descriptive statistics</td>
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<td>5</td>
<td>4</td>
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<td>Intermediate level statistics</td>
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<tr>
<td>Validity</td>
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<td>Reliability</td>
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<td>Accuracy</td>
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<td>2</td>
<td>2</td>
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<td>Sampling</td>
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<td>Type (random/purposive)</td>
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<td>5</td>
<td>4</td>
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<tr>
<td>Size of random sample</td>
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<td>4/5</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Confidence</td>
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<td>4/5</td>
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<td>Precision</td>
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<td>4/5</td>
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<td>1</td>
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<tr>
<td>Correlation</td>
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<td>4/5</td>
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<td>1</td>
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<tr>
<td>Regression analysis</td>
<td>2</td>
<td>4/5</td>
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<tr>
<td>Statistical significance</td>
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<td>4/5</td>
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<td>1</td>
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<tr>
<td>p-value</td>
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<td>4/5</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Variance</td>
<td>2</td>
<td>4/5</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Standard deviation</td>
<td>2</td>
<td>4/5</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Coefficient of variation</td>
<td>2</td>
<td>4/5</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Group Discussion

• Have you experienced any of the lessons learned identified in the presentation?
  – What are other lessons learned that you did not hear today that you’d like to share?

• How might you apply the evaluation framework to your injury prevention program?
  – What are some opportunities?
  – What are some potential barriers?

• Discuss with the participants next to you one takeaway that you intend to use upon returning to your state.
Evaluation and the Core Program

Historically

- Process
- Logic model building
- Surveillance evaluation activities
- Quarterly, semi-annual, and annual reports
Environment of Evaluation

- Performance Assessment Rating Tool (PART)
- Quarterly progress review (QPR)
- Annual budget review
- Program improvement
- Importance of state success stories
Current Portfolio Review

• Document progress from last funding cycle
• Determine readiness for new focus areas
• Inform the development of the upcoming Funding Opportunity Announcement (FOA)
Evaluation into the Future

- Must document value
- Must be tied to priorities
- Must have an outcomes focus
- Should be specific to program components
- Request evaluation assistance
Evaluation Balance of Priorities

- Program improvement
- Accountability
Contact Information

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The Disclaimer

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