Monitoring and Evaluation: the Foundations for Results

Laura B. Rawlings
Lead Social Protection Specialist
Human Development Network
World Bank

Nepal
Impact Evaluation Workshop
February 2010
Objectives of this session

1. Global Focus on Results
2. Monitoring vs. Evaluation
3. Using a RESULTS Chain
4. Results in Projects
5. Moving Forward
   - Selecting SMART indicators
   - Collecting data
   - Making results useful
Results Based Management is a Global Trend

What is new about results?

• Managers are judged by their programs’ performance, not their control of inputs → a shift in focus from inputs to outcomes

• Establishing links between monitoring and evaluation, policy formulation, and budgets

• Critical to effective public sector management
Objectives of this session

1. Global Focus on Results
2. Monitoring vs. Evaluation
3. Using a RESULTS Chain
4. Results in Safety Net Projects
5. Moving Forward
   - Selecting SMART indicators
   - Collecting data
   - Making results useful
<table>
<thead>
<tr>
<th>EVALUATION</th>
<th>MONITORING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency:</td>
<td>Regular, Continuous</td>
</tr>
<tr>
<td>Coverage:</td>
<td>All programs</td>
</tr>
<tr>
<td>Data:</td>
<td>Universal</td>
</tr>
<tr>
<td>Depth of Information:</td>
<td>Tracks implementation, looks at WHAT</td>
</tr>
<tr>
<td>Utility:</td>
<td>Continuous program improvement, management</td>
</tr>
</tbody>
</table>

- **Frequency:**
  - Periodic
  - Regular, Continuous

- **Coverage:**
  - Selected programs, aspects
  - All programs

- **Data:**
  - Sample based
  - Universal

- **Depth of Information:**
  - Tailored, often to performance and impact/WHY
  - Tracks implementation, looks at WHAT

- **Cost:**
  - Can be high
  - Cost spread out

- **Utility:**
  - Major program decisions
  - Continuous program improvement, management
Monitoring

A continuous process of collecting and analyzing information

-- To compare how well a project, program or policy is performing against expected results

-- To inform implementation and program management
Evaluation

Evaluation

• A systematic, objective assessment of an on-going or completed project, program, or policy, its design, implementation and/or results

  --To determine the relevance and fulfillment of objectives, development efficiency, effectiveness, impact and sustainability.

  --To generate lessons learned to inform the decisionmaking process.
Impact Evaluation

• An assessment of the **causal** effect of a project, program or policy on beneficiaries
  -- Uses a counterfactual to estimate what the state of the beneficiaries would have been in the absence of the program (**the control or comparison group**), compared to the observed state of beneficiaries (**the treatment group**)
  -- To determine intermediate or final outcomes attributable to the intervention
When to use Impact Evaluation?

- Evaluate impact when project is:
  - Innovative
  - Replicable/scalable
  - Strategically relevant for reducing poverty
  - Evaluation will fill knowledge gap
  - Substantial policy impact
Objectives of this session

1. Global Focus on Results
2. Monitoring vs. Evaluation
3. Using a RESULTS Chain
4. Results in Safety Net Projects
5. Moving Forward
   - Selecting SMART indicators
   - Collecting data
   - Making results useful
Using a Results Chain

A results chain answers 3 questions

• **What** are the intended results of the program?

• **How** will we achieve the intended results?

• **How** will we know we have achieved the intended results?
The Results Chain in a Typical Program

- **Inputs**: Financial, human, and other resources mobilized to support activities

- **Activities**: Actions taken or work performed to convert inputs into specific outputs

- **Outputs**: Project deliverables within the control of implementing agency
  - SUPPLY SIDE

- **Outcomes**: Use of outputs by beneficiaries and stakeholders outside the control of implementing agency
  - DEMAND SIDE

- **Longer-term outcomes or Higher Order Goals**: Changes in outcomes that have multiple drivers

**Implementation**
- Budget Staffing
- Training Studies Construction
- Training plan completed
- Cash transfer delivered
- Road constructed
- School built

**Results**
- New practices adopted
- Use of the road
- School attendance up
- Health service use up
- Poverty reduced
- Income inequality reduced
- Labor productivity increased

**Results-based Management**
## Examples of Results Chains

<table>
<thead>
<tr>
<th>Activities</th>
<th>Outputs</th>
<th>Outcomes</th>
<th>Longer-term outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Education</strong></td>
<td>• Teacher training&lt;br&gt;• Textbooks printed, delivered</td>
<td>• Teachers using new methods&lt;br&gt;• Use of textbooks</td>
<td>• Increased completion rates&lt;br&gt;• Increased attendance</td>
</tr>
<tr>
<td><strong>Health</strong></td>
<td>• Doctors hired&lt;br&gt;• Birth attendants trained</td>
<td>• New doctors practicing&lt;br&gt;• Attendants applying methods</td>
<td>• Increased use of health clinics for deliveries</td>
</tr>
<tr>
<td><strong>Social Protection and labor</strong></td>
<td>• CCTs delivered&lt;br&gt;• Targeting system&lt;br&gt;• MIS</td>
<td>• CCTs delivered to target households in accordance with conditions</td>
<td>• Increased food consumption&lt;br&gt;• Increased child health visits</td>
</tr>
</tbody>
</table>
Identify the sequence of inputs, activities, outputs and outcomes

Example of Results Chain

1. Information is available for parents about the importance of breast feeding
2. Children in community healthier
3. Fewer children are having diarrheal diseases
4. Mothers breast feeding rather than using formula
5. New funds available to implement a health project to reduce child malnutrition rates
6. Design information campaigns on the importance of breast feeding
Identify the sequence of inputs, activities, outputs and outcomes

Example of Results Chain

5. New funds available to implement a safety net project to reduce child malnutrition rates - INPUT

6. Design information campaigns on the importance of breast feeding – ACTIVITY

1. Information is available for parents about the importance of breast feeding – OUTPUT

4. Mothers breastfeeding rather than using formula – OUTCOME

3. Fewer children are having diarrheal diseases – OUTCOME

2. Children in community healthier – (higher level) OUTCOME
Objectives of this session

1. Global Focus on Results
2. Monitoring vs. Evaluation
3. Using a RESULTS Chain
4. Results in Projects
5. Moving Forward
   - Selecting SMART indicators
   - Collecting data
   - Making results useful
Implementing the Results Chain
Jamaica PATH CCT Program

• Example of how a well-structured program level M&E helped shape program design and inform policy decisions

• Program of Advancement Through Health and Education (PATH)
  – Conditional cash transfer (CCT) program aimed at linking social assistance with human capital accumulation
  – Primarily child grants to poor children < 19 conditional on school, health care usage
Implementing the **Results Chain**
Jamaica PATH CCT Program

<table>
<thead>
<tr>
<th>Level</th>
<th>Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activities</strong></td>
<td>On-Going Basis</td>
</tr>
<tr>
<td>- Monitoring</td>
<td></td>
</tr>
<tr>
<td>Program Execution</td>
<td></td>
</tr>
<tr>
<td><strong>Activities</strong></td>
<td>Regular basis</td>
</tr>
<tr>
<td>– Assessing</td>
<td></td>
</tr>
<tr>
<td>Program</td>
<td></td>
</tr>
<tr>
<td>Implementation</td>
<td></td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td>Annual</td>
</tr>
<tr>
<td>- Assessing</td>
<td></td>
</tr>
<tr>
<td>Effectiveness</td>
<td>(linked to periodic</td>
</tr>
<tr>
<td></td>
<td>household survey)</td>
</tr>
<tr>
<td><strong>Outcomes</strong></td>
<td>Baseline and</td>
</tr>
<tr>
<td>- Evaluating</td>
<td></td>
</tr>
<tr>
<td>Program on</td>
<td></td>
</tr>
<tr>
<td>Outcomes</td>
<td>follow-up</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Jamaica’s PATH M&E System

<table>
<thead>
<tr>
<th>Level</th>
<th>Instruments</th>
<th>Key indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activities Monitoring Program Execution</strong></td>
<td>Management Info. System (MIS)</td>
<td>Beneficiaries Compliance Payments</td>
</tr>
<tr>
<td><strong>Activities Assessing Program Implementation</strong></td>
<td>Implementation evaluations</td>
<td>Beneficiary and stakeholders understanding of program requirements and satisfaction</td>
</tr>
<tr>
<td></td>
<td>- Internal audits</td>
<td>Adherence to regulations</td>
</tr>
<tr>
<td></td>
<td>- Process evaluation,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Spot checks</td>
<td></td>
</tr>
<tr>
<td><strong>Outputs Assessing Program Effectiveness</strong></td>
<td>- Special Targeting Assessment</td>
<td>Coverage Targeting Adequacy of benefits</td>
</tr>
<tr>
<td></td>
<td>- Annual Household Survey</td>
<td></td>
</tr>
<tr>
<td><strong>Outcomes Evaluating Impact</strong></td>
<td>Impact evaluation</td>
<td>School attendance Use of preventive health services</td>
</tr>
</tbody>
</table>
## Use of PATH M&E Results

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Key indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACTIVITIES Management Info. System (MIS)</strong></td>
<td><strong>RESULTS</strong> – Some lag in payments; Good compliance with conditions; Slower take up rate of program</td>
</tr>
<tr>
<td></td>
<td><strong>USE</strong> - Adjustments to payment system; Intensified outreach</td>
</tr>
<tr>
<td><strong>ACTIVITIES Implementation evaluations</strong></td>
<td><strong>RESULTS</strong> – Application process seen as burdensome; Stakeholders not clear on program rules; Strong demand for jobs/training</td>
</tr>
<tr>
<td></td>
<td><strong>USE</strong> - Social workers used as focal points to access a variety of social services; New program created “Steps to Work” with focus on employment, labor market skills development</td>
</tr>
<tr>
<td>Internal audits</td>
<td><strong>RESULTS</strong> – Problems with payment system; Weak system for verifying eligibility of new beneficiaries; Delays in appeals processing</td>
</tr>
<tr>
<td>Process evaluation</td>
<td><strong>USE</strong> - Revamping of MIS; Revised Operations Manual; New check printing machine for timely payments; Intensified training of social workers</td>
</tr>
<tr>
<td>Spot checks</td>
<td></td>
</tr>
</tbody>
</table>
## Use of PATH M&E Results

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Key indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OUTPUTS</strong></td>
<td><strong>RESULTS</strong> – PATH better at reaching the poor than other Jamaican safety net programs, but not as good as other internationally <strong>USE</strong> – Improved the beneficiary identification system; Expanded training for social workers to help verify eligibility; More frequent recertification</td>
</tr>
<tr>
<td>Special Targeting Assessment</td>
<td></td>
</tr>
<tr>
<td>Annual Household Survey</td>
<td></td>
</tr>
<tr>
<td><strong>OUTCOMES</strong></td>
<td><strong>RESULTS</strong> – <strong>Education</strong> - School attendance improved slightly (by about ½ a day in a 20 day period); No impact on enrollment <strong>Health</strong> - 30% increase in use of preventive health services <strong>USE</strong> – Focused main education objective on school completion; Introduced differentiated benefit levels to provide incentives for completion (gender, age); Introduced a bonus for completing high school</td>
</tr>
<tr>
<td>Impact evaluation</td>
<td></td>
</tr>
</tbody>
</table>
Lessons Learned

• A well articulated approach to M&E is critical to good program management and to informing policy

• Impact evaluations are powerful for
  – Informing key program and policy decisions

• Good monitoring systems
  – Allow for results-based planning and management
  – Facilitate project preparation, supervision and reform
Lessons Learned (cont)

What does it take to get there?

- Clients willing to learn, take risks, experiment, and collaborate → “from threats to tools”
- Strong support of M&E by senior government champions and demand for transparency by civil society
- Donor and government desire to focus on M&E processes and goals
- Cross-sectoral collaboration in the government (especially Ministry of Finance) & donors
Objectives of this session

1. Global Focus on Results
2. Monitoring vs. Evaluation
3. Using a RESULTS Chain
4. Results in Safety Net Projects
5. Moving Forward
   - Selecting SMART indicators
   - Collecting data
   - Making results useful
Identifying good indicators: SMART

**Specific:** measure as closely as possible what you want to know

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children treated for malaria</td>
<td>1. Increased utilization of clinics</td>
</tr>
<tr>
<td></td>
<td>2. Increased use of malaria drugs</td>
</tr>
</tbody>
</table>

Which indicator is more specific?

**Measurable:** be clear about how it will be measured – specific indicators

1. % of health centers without stocks of drugs x, y & z for more than a week at a time
2. % of health centers with availability of drugs

Which indicator is measurable?

*Source: Khatouri and Kusek, 2006*
SMART indicators

✓ **Attributable:** logically and closely linked to a program’s efforts

1. Life expectancy
2. % of children fully immunized at 1 year

Which indicator is attributable?

✓ **Realistic:** data obtainable at reasonable cost, frequency, and accuracy

1. HIV prevalence among 15-24 year old pregnant women
2. HIV prevalence among the total population

Which indicator is more realistic?

✓ **Targeted:** Specific to the program’s target group

1. Percent increase in employment
2. Percent increase in employment of graduates of technical training center X in the first year after completion of training.

Which indicator is targeted?
Develop a Data Collection Plan

• Identify *what* specific data are needed
• Identify *how* the data will be collected
• Identify *who* will be responsible for collecting and reporting the data
• Identify *when* the data will be collected and reported, including how frequently
• Identify *costs* and sources of financing
Quick Tips on Making Performance Monitoring Really Useful

1. Provide frequent, timely information to program staff.

2. Set targets for each performance indicator.

3. Provide sub-group data. Disaggregate data by customer and service characteristics.

4. Do regular, basic, analysis of the data, especially comparisons.

5. Require explanations for unexpected findings.


8. Use “Red-Yellow-Green Lights” to identify programs/projects needing attention.

9. Link outcome information to program costs.

-Source: Harry Hatry, Urban Institute
Which Hospital Would You Choose?

**MERCY HOSPITAL**
- 2,100 surgery patients
- 63 deaths
- 3% death rate

**APOLLO HOSPITAL**
- 800 surgery patients
- 16 deaths
- 2% death rate
Which Hospital Would You Choose?

MERCY HOSPITAL

2,100 SURGERY PATIENTS → 63 DEATHS → 3% DEATH RATE

600 IN GOOD CONDITION → 6 DEATHS → 1% DEATH RATE

1,500 IN POOR CONDITION → 57 DEATHS → 3.8% DEATH RATE

APOLLO HOSPITAL

800 SURGERY PATIENTS → 16 DEATHS → 2% DEATH RATE

600 IN GOOD CONDITION → 8 DEATHS → 1.3% DEATH RATE

200 IN POOR CONDITION → 8 DEATHS → 4% DEATH RATE

BUT...

BUT...
Conclusions

• Monitoring and evaluation are separate, complementary functions, but both are key to results-based management

• Good M&E is crucial not only to effective project management but can be a driver for reform

• Have a good M&E plan BEFORE you roll out your project and use it to inform the journey!

• Design the timing and content of M&E results to further evidence-based dialogue

• Good monitoring is essential to good impact evaluation