Monitoring and Evaluation: the Foundations for Results

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Human Development Network
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Impact Evaluation Workshop
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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
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<table>
<thead>
<tr>
<th>EVALUATION</th>
<th>MONITORING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency: Periodic</td>
<td>Regular, Continuous</td>
</tr>
<tr>
<td>Coverage: Selected programs, aspects</td>
<td>All programs</td>
</tr>
<tr>
<td>Data: Sample based</td>
<td>Universal</td>
</tr>
<tr>
<td>Depth of Information: Tailored, often to performance and impact/WHY</td>
<td>Tracks implementation, looks at WHAT</td>
</tr>
<tr>
<td>Cost: Can be high</td>
<td>Cost spread out</td>
</tr>
<tr>
<td>Utility: Major program decisions</td>
<td>Continuous program improvement, management</td>
</tr>
</tbody>
</table>
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 \textit{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 (\textit{the control or comparison group}), compared to the observed state of beneficiaries (\textit{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
Monitor the outcome indicator, evaluate the impact

Indicator

<table>
<thead>
<tr>
<th>Year</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>2</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>3</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>4</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>5</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
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</tbody>
</table>

With project

Indicator

<table>
<thead>
<tr>
<th>Year</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
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<tr>
<td>2</td>
<td>30%</td>
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<tr>
<td>3</td>
<td>30%</td>
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<tr>
<td>4</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
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<tr>
<td>5</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
</tr>
</tbody>
</table>

With out project

Year

With project

Year

With out project

20%
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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

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

**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>
</table>
| **Education** | • Teacher training  
• Textbooks printed, delivered | • Teachers using new methods  
• Use of textbooks | • Increased completion rates  
• Increased attendance | • Increased test scores  
• Increased labor productivity |
| **Health** | • Doctors hired  
• Birth attendants trained | • New doctors practicing  
• Attendants applying methods | • Increased use of health clinics for deliveries | • Improved maternal mortality |
| **Social Protection and labor** | • CCTs delivered  
• Targeting system  
• MIS | • CCTs delivered to target households in accordance with conditions | • Increased food consumption  
• Increased child health visits | • Decreased poverty  
• Lower child mortality |
Identify the sequence of inputs, activities, outputs and outcomes

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Information is available for parents about the importance of breast feeding</td>
</tr>
<tr>
<td>2.</td>
<td>Children in community healthier</td>
</tr>
<tr>
<td>3.</td>
<td>Fewer children are having diarrheal diseases</td>
</tr>
<tr>
<td>4.</td>
<td>Mothers breast feeding rather than using formula</td>
</tr>
<tr>
<td>5.</td>
<td>New funds available to implement a health project to reduce child malnutrition rates</td>
</tr>
<tr>
<td>6.</td>
<td>Design information campaigns on the importance of breast feeding</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Example of Results Chain</strong></td>
<td></td>
</tr>
<tr>
<td><strong>5. New funds available to implement a safety net project to reduce child malnutrition rates</strong> - INPUT</td>
<td></td>
</tr>
<tr>
<td><strong>6. Design information campaigns on the importance of breast feeding</strong> – ACTIVITY</td>
<td></td>
</tr>
<tr>
<td><strong>1. Information is available for parents about the importance of breast feeding</strong> – OUTPUT</td>
<td></td>
</tr>
<tr>
<td><strong>4. Mothers breastfeeding rather than using formula</strong> – OUTCOME</td>
<td></td>
</tr>
<tr>
<td><strong>3. Fewer children are having diarrheal diseases</strong> – OUTCOME</td>
<td></td>
</tr>
<tr>
<td><strong>2. Children in community healthier</strong> – (higher level) OUTCOME</td>
<td></td>
</tr>
</tbody>
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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>Program Execution</td>
</tr>
<tr>
<td><strong>Activities</strong></td>
<td>Regular basis</td>
</tr>
<tr>
<td>– Assessing</td>
<td>Program Implementation</td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td>Annual</td>
</tr>
<tr>
<td>- Assessing</td>
<td>Effectiveness</td>
</tr>
<tr>
<td></td>
<td>(linked to periodic household survey)</td>
</tr>
<tr>
<td><strong>Outcomes</strong></td>
<td>Baseline and follow-up</td>
</tr>
<tr>
<td>- Evaluating Impact of Program on Outcomes</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</strong></td>
<td>Management Info. System (MIS)</td>
<td>Beneficiaries Compliance Payments</td>
</tr>
<tr>
<td>Monitoring Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Execution</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Activities</strong></td>
<td>Implementation evaluations</td>
<td>Beneficiary and stakeholders understanding of program requirements and satisfaction</td>
</tr>
<tr>
<td>Assessing Program</td>
<td>- Internal audits</td>
<td>Adherence to regulations</td>
</tr>
<tr>
<td>Implementation</td>
<td>- Process evaluation,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Spot checks</td>
<td></td>
</tr>
<tr>
<td><strong>Outputs</strong></td>
<td>- Special Targeting Assessment</td>
<td>Coverage</td>
</tr>
<tr>
<td>Assessing Program</td>
<td>- Annual Household Survey</td>
<td>Targeting</td>
</tr>
<tr>
<td>Effectiveness</td>
<td></td>
<td>Adequacy of benefits</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Outcomes</strong></td>
<td>Impact evaluation</td>
<td>School attendance</td>
</tr>
<tr>
<td>Evaluating Impact</td>
<td></td>
<td>Use of preventive health services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Use of PATH M&E Results

<table>
<thead>
<tr>
<th>Instruments</th>
<th>Key indicators</th>
</tr>
</thead>
</table>
| **ACTIVITIES Management Info. System (MIS)**    | **RESULTS** – Some lag in payments; Good compliance with conditions; Slower take up rate of program  
**USE** - Adjustments to payment system; Intensified outreach |
| **ACTIVITIES Implementation evaluations**       | **RESULTS** – Application process seen as burdensome; Stakeholders not clear on program rules; Strong demand for jobs/training  
**USE** - 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 |
| Internal audits                                 | **RESULTS** – Problems with payment system; Weak system for verifying eligibility of new beneficiaries; Delays in appeals processing  
**USE** - Revamping of MIS; Revised Operations Manual; New check printing machine for timely payments; Intensified training of social workers |
| Process evaluation                              |                                                                                                                                               |
| Spot checks                                     |                                                                                                                                               |
## 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</td>
</tr>
<tr>
<td>Special Targeting Assessment</td>
<td><strong>USE</strong> – Improved the beneficiary identification system; Expanded training for social workers to help verify eligibility; More frequent recertification</td>
</tr>
<tr>
<td>Annual Household Survey</td>
<td></td>
</tr>
<tr>
<td><strong>OUTCOMES</strong></td>
<td><strong>RESULTS</strong> –</td>
</tr>
<tr>
<td>Impact evaluation</td>
<td>• Education - School attendance improved slightly (by about ½ a day in a 20 day period); No impact on enrollment</td>
</tr>
<tr>
<td></td>
<td>• Health - 30% increase in use of preventive health services</td>
</tr>
<tr>
<td></td>
<td><strong>USE</strong> –</td>
</tr>
<tr>
<td></td>
<td>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>
</tbody>
</table>
Lessons Learned

• A well articulated approach to M&E is critical not only to good program management, but good sectoral strategies
• 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
• Strong M&E within the sector can be used as a platform for (i) expansion to other sectors and (ii) developing a more coherent sectoral strategies system
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
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Identifying good indicators: **SMART**

- **Specific**: measure as closely as possible what you want to know
- **Measurable**: be clear about how it will be measured – specific indicators

**Outcome**

- Children treated for malaria

**Indicator**

- 1. Increased utilization of clinics
- 2. Increased use of malaria drugs

Which indicator is more specific?

**Measurable**

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

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

✓ **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

✓ **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 attributable?

Which indicator is more realistic?

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

BUT...

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...
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