Monitoring and Evaluation

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Labor Market Core Course
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Objectives of this session

1. Monitoring and Evaluation – the Foundation for Results
2. Using a RESULTS Chain
3. Measuring Results in Public Works Programs
4. Evaluations
   - Process
   - Targeting
   - Impact
5. Conclusion - Moving Forward
Why are Monitoring and Evaluation Important?

Credible evidence is the foundation for:

- **Results-based management**
  - Governments and managers are being judged by their programs’ performance, not their control of inputs
  - Shift in focus
    - from inputs to outcomes
    - from threats to tools

- **Accountability and transparency**
  - between government and civil society
  - between programs and beneficiaries

- **Knowledge generation on development effectiveness**
  - Applied research, notably through impact evaluations, to determine whether programs are reaching their intended outcomes
<table>
<thead>
<tr>
<th>EVALUATION</th>
<th>MONITORING</th>
</tr>
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<tbody>
<tr>
<td><strong>Frequency:</strong></td>
<td>Periodic</td>
</tr>
<tr>
<td><strong>Coverage:</strong></td>
<td>Selected programs, aspects</td>
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<tr>
<td><strong>Data:</strong></td>
<td>Sample based</td>
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<tr>
<td><strong>Depth of Information:</strong></td>
<td>Tailored, often to performance and impact/WHY</td>
</tr>
<tr>
<td><strong>Cost:</strong></td>
<td>Can be high</td>
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<tr>
<td><strong>Utility:</strong></td>
<td>Major program decisions</td>
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Results chains are a simple approach to mapping the causal logic/theory of change underpinning a program

- best used as a participatory tool, during project design
- basis for constructing a M&E approach which will test the validity of the theory of change

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?
What is a results chain?

**Inputs**
- Financial, human, and other resources mobilized to support activities
- Budgets, staffing, other available resources

**Activities**
- Actions taken or work performed to convert inputs into specific outputs
- Series of activities undertaken to produce goods and services

**Outputs**
- Products resulting from converting inputs into tangible outputs
- Goods and services produced and delivered, under the control of the implementing agency

**Outcomes**
- Changes resulting from use of outputs by targeted population
- Not fully under the control of implementing agency

**Final Outcomes**
- The final objective of the program
- Long-term goals
- Changes in outcomes with multiple drivers

Implementation (SUPPLY SIDE) 
Results (DEMAND + SUPPLY)
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Public Works Program Results Chain Example

**Inputs**
- Budget for PW Program
- Ministry of Labor staff
- Staff from participating municipalities

**Activities**
- Setting of sub-minimum wage
- Information campaign
- Development and application of enrollment process
- Selection of sites, contracting and training of PW operators

**Outputs (Annual)**
- 50,000 jobs provided by PW program
- $1,000,000 in wages transferred
- > 75% of program costs transferred as wages
- 2,000 PW subprojects produced

**Outcomes**
- Net income transfer to households
- Skills acquired
- Utility, maintenance of PWs

**Final Outcomes**
- Future income, employment
- Among beneficiary households:
  - income, assets
  - health, nutrition
  - education
- Aggregate unemployment, poverty

**Implementation (SUPPLY SIDE)**

**Results (DEMAND + SUPPLY)**
Goals depend on type of PW program

- **Safety net** -- temporary or seasonal income support in response to covariate shocks such as seasonal droughts, macro-economic crises
- **Poverty Alleviation** – income transfer to poor
- **Employment/Insurance** -- employment guarantee
- **Education/Training** -- skills acquisition with longer term employment/earnings objectives
- **Public goods** – from subprojects created

→ these inform the content of the results chain
Multiple, often iterative goals are common

**Across beneficiaries:**
- Direct beneficiaries
- Direct beneficiaries’ households
- Communities benefitting from PW subprojects
- Region, nation benefitting from PW program

**Over time:**
- During period of employment – short term outputs, outcomes
- After period of employment -- longer-term outcomes, sustainability
- Relative to crisis period – speed, appropriateness of response
## Typical Public Works Indicators

### Direct Beneficiaries

**Outputs**
- Targeting
  - Errors of inclusion
  - Errors of exclusion
- Gender balance among beneficiaries
- Income transfer received
- Days/man-hours employed

**Outcomes**
- Net wage gain
- Net employment

### Beneficiaries’ Households

**Outputs**
- Quality of goods and services produced

**Outcomes**
- Sustainability, utility and impact of subprojects

**Longer-Term Outcomes**
- Net income, consumption over longer time period
- Savings, assets
- Education, health, nutrition
- Reliance other types of public transfers
- Risk management in future shocks

### Public Works Subprojects

**Outputs**
- Labor intensity
- Component costs
- Wage rate relative to market, minimum

**Outcomes**
- Regional, national aggregate impact on poverty, employment
- Risk management in future crises

### Public Works Program

**Outputs**
- Regional, national aggregate impact on poverty, employment
- Risk management in future crises
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Types of Evaluation

Depend on the type of question being asked (Imas and Rist, 2009)

- **Descriptive**
  - Seeks to determine what is taking place
  - Often describes aspects of a process, condition, or set of views
  - Includes process evaluations, beneficiary assessments

- **Normative**
  - Compares what is taking place to what should be taking place
  - Often used to assess targeting, completion of activities
  - Measures inputs, activities and outputs in results chain
  - Includes assessments of targeting/benefit incidence, coverage, adequacy

- **Cause and Effect or Impact**
  - Assesses causal results and looks at outcomes;
  - Addresses questions of attribution and implies a comparison of performance
  - Uses before and after and with and without comparisons
  - Impact evaluations of program level outcomes, operational options
Types of Evaluations (examples)

Process Evaluations – Descriptive - Assesses whether a program is being implemented as planned
- Tailored to program’s institutional arrangements and components
- Often include quantitative and qualitative approaches
- Particularly useful at early stages of program implementation

Targeting/Incidence Analysis – Normative - Determines whether the program is reaching its intended beneficiaries
- Can be applied at the geographical and household levels
- Includes errors of inclusion and exclusion
- Needs a reference from national measures of poverty (usually direct or proxy measures of income or consumption) against which to benchmark program performance
- Can use national surveys with ID of program beneficiaries, and oversampling if needed and/or regular program registration process
Impact Evaluations – Cause and Effect - An assessment of the causal effect of a project, program or policy on beneficiaries

- Uses a counterfactual obtained from a control or comparison group to estimate the state of the beneficiaries in the absence of the program
- Relies on baseline and follow-up data on treatment and comparison groups

Useful for:

-- Determining intermediate or final outcomes attributable to the intervention
  - Often used to examine questions with less clear answers such as changes in behavior or outcomes with a range of drivers

-- Testing program design options
  - For example, different outreach strategies or the relative effectiveness of different benefit packages
Evaluations are derived from the question posed and should be tailored accordingly.

Evaluations benefit from…

- Combining quantitative and qualitative data
- Cost – benefit analysis
- Ensuring timeliness of measuring results, producing information to inform key decisions
- Early planning!

→ Keep an eye on costs and take advantage of available data, national surveys
All impact evaluations estimate the **counterfactual**, using control or comparison groups: *What would the treatment group be like in the absence of the program?*

1. **Experimental(Randomized Assignment)**
   - uses randomized assignment to determine who gets program treatment(s) and who is control among eligible beneficiaries
   - can be used ethically in cases where program cannot reach all potential beneficiaries at once; or to test program alternatives
   - random assignment creates statistically equivalent groups (treatment and control) which allows a valid estimate of the counterfactual

2. **Quasi-Experimental**
   - mimics experimental designs
   - methods to create comparison groups include:
     - Regression Discontinuity
     - Differences in Differences
     - Instrumental Variables
     - Statistical Matching

→ **Choice of method depends on context. Rules of program operation are key because they determine eligibility for the program!** Use them to ID comparison group.
In many cases, the program cannot reach all potential beneficiaries at the same time – use these opportunities!

- **Universe of eligible beneficiaries > # beneficiaries**
  -- Use random selection/lottery to select who is offered benefits, against those not selected (controls)
  -- Fair, transparent and ethical way to assign benefits to equally deserving populations

- **Oversubscription:**
  -- Give each eligible unit the same chance of receiving treatment
  -- Compare those offered treatment with those not offered treatment (controls)

- **Phase in:**
  -- Give each eligible unit the same chance of receiving treatment first, second, third…randomly select order of phase in
  -- Compare those offered treatment first, with those offered treatment later (controls)
Key question in PW projects: What is the net income gain to participating workers’ households?

The income gain of the program does not equal the gross wage rate (Ravallion, 2009)
- Depends on the behavioral responses of the main recipient. Poor people “cannot afford to be idle”. Need to forego other forms of income to join PW
- Depends on the behavioral response of other household members (take up displaced activities?)
- Depends on the conditions of the local labor market at the time of the introduction of the program
What is the net income gain to participating workers’ households?

- Clearly a question that needs a counterfactual analysis: what would have happened in the absence of the program?
- Idea of impact evaluation is to estimate change in outcomes that is identifiable to the program

Net Gains = Gross Wage – Foregone Income

needs to be estimated - the counterfactual

- Estimate of foregone income essential to provide cost-benefit analysis (Murgai, Ravallion 2005)
- Use control or comparison groups to estimate foregone income (ie the counterfactual – what the income the beneficiaries would have had in the absence of the program)
- Higher foregone income relative to gross wage = less effective
What results are needed to assess the performance of your program?

- Use results chains to define a shared view of the project’s theory of change, causal pathways to reaching the main project objectives.
- Establish the M&E framework early on, get good baseline data.
- Monitor activities, outputs, key performance indicators.
- Collect cost data for cost-benefit analysis.
- Do you need to establish that the program caused observed changes in outcomes? If so, use an impact evaluation.
- Impact evaluations need good counterfactuals, which depend on the validity of comparison groups → clear rules of program operation allow you identify valid comparison groups.