Steps in Implementing an Impact Evaluation

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Step 1: Identify priorities

- Know your epidemic
- Examine sector plan
  - Poverty Reduction
  - Health Long-term Strategy
- Identify highest priorities for learning in HIV/AIDS
  - HIV testing: VCT services
  - Prevention: Education for HIV/AIDS prevention, Media campaign, PMTCT
  - Treatment and Care: ART
  - Mitigation: OVC interventions
Step 1: Identify priorities

• Priority interventions:
  – Unknown benefits
  – Costly intervention
  – New intervention
  – National or regional policy thrust: resources focused on..

• Priority outcomes of interest
  – Intermediate
  – Final

• Joint determination of intervention/s and outcomes

• Feasible evaluation question
Step 2: Understand roll-out of intervention and opportunities for impact evaluation

- How will the program be rolled out? Different interventions?
  - Piloted in a random sample of communities / schools / regions?
  - Rolled out nationwide?
  - Rolled out in communities/schools/regions satisfying a certain criteria?
  - Rolled out to a targeted high-risk population/areas?
    ➔ Understand TARGETING and PROGRAM PARTICIPATION

- Each roll-out strategy yields distinct opportunities for impact evaluation
3. Appropriate design

- Keep in mind
  - The needs of the intervention – Target population/ High-risk areas
  - The evaluation: Take advantage of opportunities for random assignment or phase-out

- Example: 1,000 schools in high-risk/priority areas to receive education for HIV/AIDS interventions
  - Randomly assign 300 to Year 1, 400 each to Years 2-3
  - Identify 500 neediest (using clearly defined criteria) and assign to years 1 and 2
3. More on design

• Determine scale: Large scale or small pilot?
• Universal scale: difficult to evaluate, usually not feasible
• At large scale
  – May be representative
  – More costly to implement
  – Better information about regional or national effectiveness
• Small pilot (e.g., in two districts)
  – Easier to implement
  – Not as informative
4. Assignment to treatment and control

Is random assignment feasible?

- At what level? The unit of intervention often simplest
  Example: Education for HIV/AIDS prevention
  - Can randomly assign at school, clinic, or community level

- Trade-off: higher level means bigger sample

Alternative assignment strategies?

- If the intervention must be targeted, use clearly defined criteria, and if feasible, phase out randomly within eligible population / schools / clinics / communities
5. Collect baseline data

- Baseline data not strictly necessary if assignment is randomized: Randomization implies treatment and control are similar

But baseline data

- Allows us to verify that treatment and control appear balanced, allows Diff-in-Diff with Random assignment
- Regression Discontinuity Design and other quasi-experimental methods
- Informs project design and implementation:
  1. Who was targeted? Did the program mostly benefit patients who were poor or at high risk at baseline?
  2. How well were they targeted? Allows analysis of targeting efficiency
  3. Sometimes, unexpected but important information
5. Baseline questionnaires

1. Include areas essential to impact evaluation
   • Ultimate outcomes we care most about: prevalence rates
   • Intermediate outcomes we expect to change first: behavior?
   • Characteristics that might affect outcomes

2. Take advantage of opportunity to collect essential sector data
   • Kenya: IE on VCT uptake – census to get information of activities at a representative VCT centre

3. Who collects it?
   • Bureau of Statistics: Integrate with existing data
   • Ministry concerned: Ministry of Health
   • Private agency: Sometimes easier quality monitoring
6. Check for balance / pre-treatment characteristics

- Do treatment and control groups look similar at baseline?

<table>
<thead>
<tr>
<th></th>
<th>Poverty</th>
<th>Female-headed households</th>
<th>Number of children in household</th>
<th>Formal sector job</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment</td>
<td>70%</td>
<td>64%</td>
<td>3.1</td>
<td>20%</td>
</tr>
<tr>
<td>Control</td>
<td>68%</td>
<td>66%</td>
<td>2.9</td>
<td>18%</td>
</tr>
</tbody>
</table>

- If not, all is not lost!
  - Even in absence of perfect balance, can use baseline data to adjust analysis—Diff in Diff
7. Roll out intervention

• Monitor to roll-out to ensure evaluation is not compromised

• What if the benefits are accidentally rolled out to everyone, all at once?
  • Example: A radio-based information campaign is rolled out to all districts
  • Evaluation is compromised: Needed to monitor!

• What if all the control group receive some *other* benefit?
  • Example: NGO targets control communities to receive VCT
  • Changes evaluation: Add information campaign in treatment communities
7. Gather info on roll-out

- In reality, who receives which benefits when?
  - Could affect the impacts measured: variation in exposure to treatment

- Does the intervention involve something other than initially planned?
  - Example: Learn that those giving resources to VCT clinics also gave detailed guidance on clinic management
  - Program impact now includes the guidance
8. Follow-up data

- Collect follow-up data for both the treatment and control groups
- Appropriate intervals
  - Consider how long it should take for outcomes to change
  - Sub-sample at six months? Intermediate changes
  - One year
- Provide initial outcomes
- Adjust program if needed
  - Two years: Changes in longer term outcomes?
  - After end of program: Do effects endure?
- What happens once the Education for HIV/AIDS prevention program has ended?
9. Estimate program impacts

- Randomization: Simply compare average outcomes for treatment and comparison
- Other methods: Make statistical assumptions to estimate impact of program
- Combination of methods
10. Are the effects big enough to matter?

- Are the effects **statistically** significant?
  - Basic statistical test tells whether differences are due to the program or to noisy data

- Are they policy significant?
  - If the anti-HIV media campaign costs a million dollars and has positive effect but it’s *tiny*, may not be worthwhile
11. Disseminate!

• If no one knows about it, it won’t make a difference to policy!
• Make sure the information gets into the right policy discussions
• Ownership to government, capacity building
• Forums
  – Workshop
  – Report
  – Policy brief
12. Iterate

- Re-examine sector priorities: Identify next learning opportunity
- Or suppose the effects aren’t as large as you hoped
  - Test variations
    - Different training for teachers and clinic officers to implement an Education for HIV prevention program
  - Test other interventions to affect same outcomes
    - Media campaign for HIV/AIDS awareness versus Education for HIV/AIDS program
Thank You