Theory of Change

Lindsey Novak
International Initiative for Impact Evaluation (3ie)
Terminology

Theory of Change
Program Theory
Causal Chain
Theory-Based Evaluation
Logic Model
Terminology

Theory of Change
Program Theory
Causal Chain
Theory-Based Evaluation
Logic Model

vs the “Black box” approach
Terminology

Theory of Change
Program Theory
Causal Chain
Theory-Based Evaluation
Logic Model

vs the “Black box” approach

Ultimate goal: Answer the “why?” question
1. What is the program?
1. What is the program?
2. What outcomes does the program aim to achieve?
Questions

1. What is the program?
2. What outcomes does the program aim to achieve?
3. What intermediate steps lead to those outcomes?
Questions

1. What is the program?
2. What outcomes does the program aim to achieve?
3. What intermediate steps lead to those outcomes?
4. What assumptions are associated with each link in the causal chain?
1. What is the program?
School-Based Malaria Intervention

Malaria Intervention
2. What outcomes does the program aim to achieve?
School-Based Malaria Intervention

Malaria Intervention

INCREASED KNOWLEDGE

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3. What intermediate steps lead to those outcomes?
School-Based Malaria Intervention

Malaria Intervention

- Reduced Clinical Attacks
- Reduced Asymptomatic Parasitemia

Increased Knowledge
School-Based Malaria Intervention

Malaria Intervention → Reduced Clinical Attacks → Increased School Attendance

Malaria Intervention → Reduced Asymptomatic Parasitemia
School-Based Malaria Intervention

- Reduced Clinical Attacks
- Reduced Asymptomatic Parasitemia
- Reduced Anemia
- Increased School Attendance
School-Based Malaria Intervention

Malaria Intervention → Reduced Clinical Attacks → Reduced Asymptomatic Parasitemia → Reduced Anemia → Increased School Attendance → Improved Cognition → Increased Concentration → Increased Knowledge
1. What outcomes do you want to achieve?
2. What program will induce those outcomes?
3. What pathways theoretically lead to those outcomes?
4. What assumptions are associated with each link in the causal chain?
School-Based Malaria Intervention

Malaria Intervention
- Students correctly targeted - RDT devices accurate, Teachers categorize correctly
- Children adhere to full med regimen
- Not considered substitution for preventative measures

Reduced Malaria
- Reduced Clinical Attacks
- Reduced Asymptomatic Parasitemia

Medicine is effective

Reduced Anemia

Increased School Attendance
Improved Cognition
Increased Concentration

INCREASED KNOWLEDGE

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School-Based Malaria Intervention

Malaria Intervention

- Reduced Clinical Attacks
- Reduced Asymptomatic Parasitemia

Binding constraint is addressed

Child labor doesn’t increase

- Reduced Anemia
  - Increased School Attendance
  - Improved Cognition
  - Increased Concentration

Schools function sufficiently well – teachers are present and teaching, teachers are knowledgeable

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Outcomes and assumptions can be tested by:

- Counterfactual analysis
Data Collection

Malaria Intervention

- Reduced Clinical Attacks
- Reduced Asymptomatic Parasitemia

Doctors are present and teaching, teachers are knowledgeable

- Binding constraint is addressed
- Child labor doesn’t increase
- Medicine is effective

- Students correctly targeted - RDT devices accurate, Teachers categorize correctly
- Children adhere to full med regimen

- Not considered substitution for preventative measures

- Reduced Anemia

- Increased School Attendance
- Improved Cognition
- Increased Concentration

- Schools function sufficiently well – teachers are present and teaching, teachers are knowledgeable

Students correctly targeted - RDT devices accurate, Teachers categorize correctly

Teachers categorize correctly

Not considered substitution for preventative measures

(Data Collection Diagram)
Outcomes and assumptions can be tested by:
  – Counterfactual analysis
  – Factual analysis
Data Collection

Malaria Intervention

- Reduced Clinical Attacks
  - Binding constraint is addressed
  - Medicine is effective
- Reduced Asymptomatic Parasitemia
  - Children adhere to full med regimen
- Reduced Anemia
  - Not considered substitution for preventative measures

Increased School Attendance
- Improved Cognition
- Increased Concentration

Schools function sufficiently well – teachers are present and teaching, teachers are knowledgeable

Students correctly targeted - RDT devices accurate, Teachers categorize correctly

Medicine is effective

Child labor doesn’t increase

Data Collection
Outcomes and assumptions can be tested by:

- Counterfactual analysis
- Factual analysis

- Some outcomes and assumptions cannot be measured or tested
Data Collection

Students correctly targeted - RDT devices accurate, Teachers categorize correctly

Malaria Intervention

Medicine is effective

Reduced Clinical Attacks

Reduced Asymptomatic Parasitemia

Reduced Anemia

Increased School Attendance

Improved Cognition

Increased Concentration

Schools function sufficiently well - teachers are present and teaching, teachers are knowledgeable

Not considered substitution for preventative measures

Children adhere to full med regimen

Higher Test Scores

INCREASED KNOWLEDGE

Test accurately measures knowledge

Drugs are effective

Binding constraint is addressed

Child labor doesn’t increase

Students correctly targeted - RDT devices accurate
Criticisms of Theory of Change

- Over-simplify the program
Campaign Against Child Marriage in Bihar & Jharkhand

Breakthrough & Catalyst Management Services

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Criticisms of Theory of Change

• Over-simplify the program
• Long-term effects not considered
Long Term Effects

INCREASED KNOWLEDGE

Better Labor Market Outcomes

Healthier & Smarter Children Next Generation

Higher Incomes

Reduced Poverty
Criticisms of Theory of Change

- Over-simplify the program
- Long-term effects not considered
- Unintended consequences not considered
Unintended Consequences

Malaria Intervention

- Reduced Clinical Attacks
- Reduced Asymptomatic Parasitemia

Reduced Anemia

- Increased School Attendance
- Improved Cognition
- Increased Concentration

Child labor doesn’t increase

Not considered substitution for preventative measures

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Criticisms of Theory of Change

- Over-simplify the program
- Long-term effects not considered
- Unintended consequences not considered
- Does not consider that program to outcomes is not uni-directional
Malaria Intervention

- Reduced Clinical Attacks
  - Reduced Asymptomatic Parasitemia
    - Reduced Anemia
      - Increased School Attendance
        - Increased Cognition
        - Increased Concentration

Increased Knowledge
Criticisms of Theory of Change

• Over-simplify the program
• Long-term effects not considered
• Unintended consequences not considered
• Does not consider that program to outcomes is not uni-directional
• Heterogeneous effects are not considered
Increased School Attendance

Reduced Clinical Attacks

Reduced Asymptomatic Parasitemia

Reduced Anemia

Improved Cognition

Increased Concentration

Increased Knowledge

Malaria Intervention

Disaggregate by Distance to School

Binding constraint is addressed
• What is the best time to create a theory of change?
  – During the program design
  – Before data collection
  – Before data analysis
Closing Remarks

• Ultimate goal: Answer the “why?” question
• Identifies assumptions and creates testable hypotheses
• Identifies areas of potential weakness in the program
• Can be created for new and existing programs