Methodologies for Studying Policy Implementation and Health Outcomes

Second Global Symposium on Health Systems Research, Beijing October 31–November 2, 2012

> Laili Irani, MD, PhD Senior Policy Analyst





### Objective of research

#### The main objective is to find the truth.

The following are specific research objectives:

- Become familiar with a new phenomenon (exploratory research)
- Portray accurately the characteristics of a particular situation, individual, or group (descriptive research)
- Test a hypothesis of the association between/among variables (quantitative research)

## Implementation of the policy research

Sharing research findings and the evidence with policymakers could make the experience more applicable.

Note: The researcher's position and demographics should be noted and acknowledged, as it can have an impact on the policy data collected.

# Methodologies for conducting policy research

### Approaches to Research on Health Policy and Systems

Perspective	Positivism	Critical Realism	Relativism
Research question	What interventions work best and have most impact?	What works for whom under which conditions?	How do actors experience and understand different types of interventions or policies?
Research approaches	Deductive, hypothesis- driven, causal relationships proposed and tested	Deductive and inductive (theory testing and building)	Inductive (maybe theory building and/or testing)

## Methods of health policy research

#### Descriptive

- Literature review
- Case studies

#### Analytic

- Stakeholder mapping
- Cross-sectional surveys
- System dynamics
- Quasi-experimental

#### Experimental

- Complex adaptive systems
  - Path dependence

#### Approaches to data collection

- Document analyses
- Secondary data analyses
- Observation
- Interviews
- Surveys
- Power cube
  - Addresses the forms of power noted in places of engagement
  - Noted in workshops and focus groups

#### Example of a literature review

#### The terrain of health policy analysis in low and middle income countries: a review of published literature 1994–2007

Lucy Gilson<sup>1,2,3</sup>\* and Nika Raphaely<sup>1</sup>

Accepted 22 June 2008						
Table 2 LMIC health policy analyses by type of publication, 1994–2007						
	No. articles	No. journals	Average no. articles per journal			
Core journals (health policy)	212	13	16.3			
Non-core journals	179	102	1.8			
Total	391	115	3.4			
Core as % total	55%	12%				
Non-core journals						
Public health and tropical medicine	61	28	2.2			
Development studies	46	22	2.1			
Social science	38	26	1.5			
Medical and nursing	21	18	1.2			
Geographic studies	13	8	1.6			

7

### Example of a case study

Discursive gaps in the implementation of public health policy guidelines in India: The case of HIV testing

```
Kabir Sheikh<sup>a,*</sup>, John Porter<sup>b</sup>
```

They conducted an empirical research study using the interpretive policy analysis approach to diagnose reasons for gaps in the implementation of national guidelines for HIV testing in Indian hospitals.

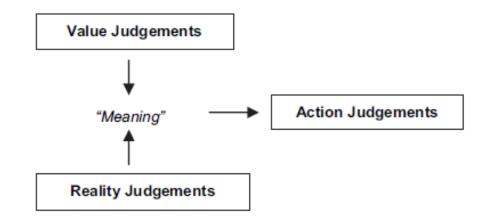
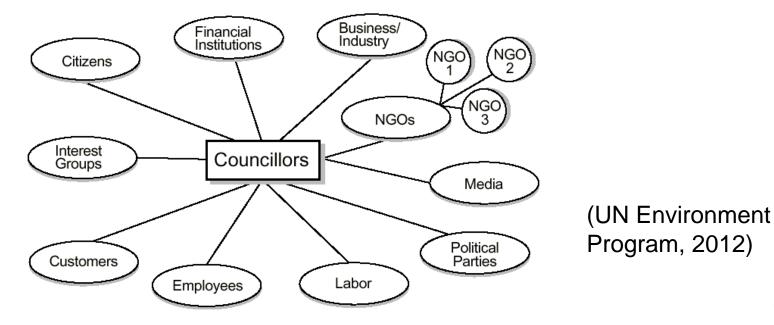


Fig. 1. Vickers' framework of judgements to characterize actors' 'systems of meaning'.

### Stakeholder mapping

- Stakeholder mapping is used to analyze the power, networking, and political will of key actors.
- It clearly recognizes both the promoters and detractors of political influences (Majchrzak, 1984; Brugha and Varvasovsky, 2000).



### Stakeholder mapping (cont.)

#### Data collection methods include

- Key informant interviews (Surjadjaja and Mayhew, 2010)
- Semi-structured interviews (Larsson et al., 2012)
- Analysis methods include
- Qualitative data analysis (Larsson et al., 2012)
- Latent content analysis, i.e., analyze underlying meanings of respondents' statements (Graneheim and Lundman, 2004)

#### **Cross-sectional surveys**

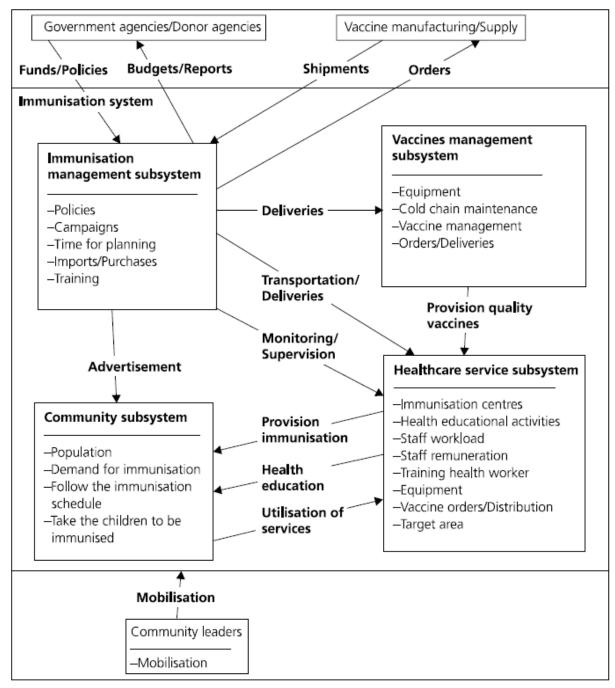
## Implementation of co-trimoxazole prophylaxis and isoniazid preventive therapy for people living with HIV

Anand A Date,<sup>a</sup> Marco Vitoria,<sup>b</sup> Reuben Granich,<sup>b</sup> Mazuwa Banda,<sup>b</sup> Mayada Youssef Fox<sup>b</sup> & Charlie Gilks<sup>b</sup>

Methods: In 2007, we conducted by e-mail a cross-sectional survey of World Health Organization (WHO) HIV/AIDS programme officers in 69 selected countries having a high burden of infection with HIV or HIV-associated tuberculosis (TB). The specially designed, self-administered questionnaire contained items covering national policies for CTXp and IPT in people living with HIV, current level of implementation and barriers to developing or implementing these policies.

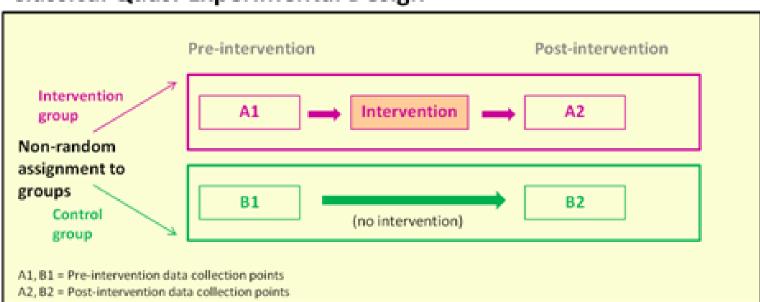
### System dynamics

- Characteristics of system dynamics:
  - A methodology and mathematical modeling technique for framing, understanding, and discussing complex issues and problems
  - An approach to understanding the behavior of complex systems over time
  - Deals with internal feedback loops and time delays that affect the behavior of the entire system



### Quasi-experimental designs

Use an intervention and comparison group, but assignment to the groups is not random.



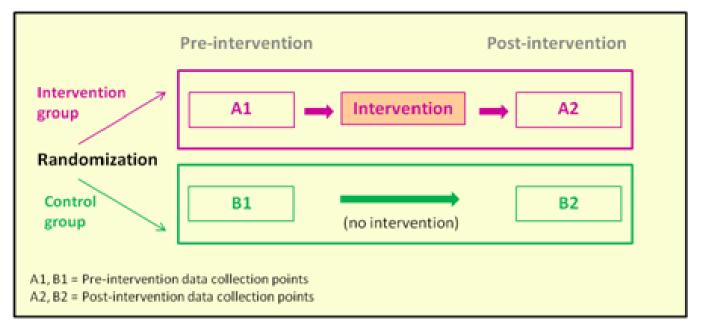
#### **Classical Quasi-Experimental Design**

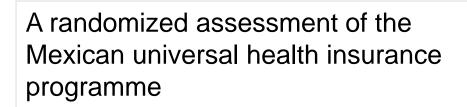
### **Experimental designs**

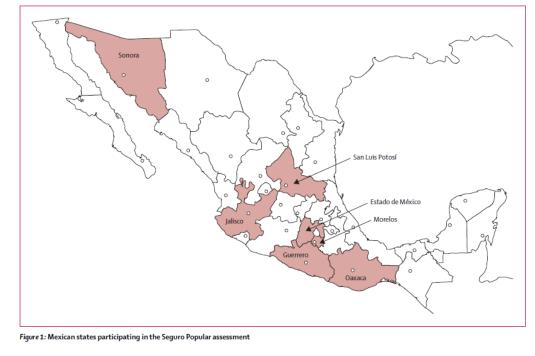
Also called randomized experiments

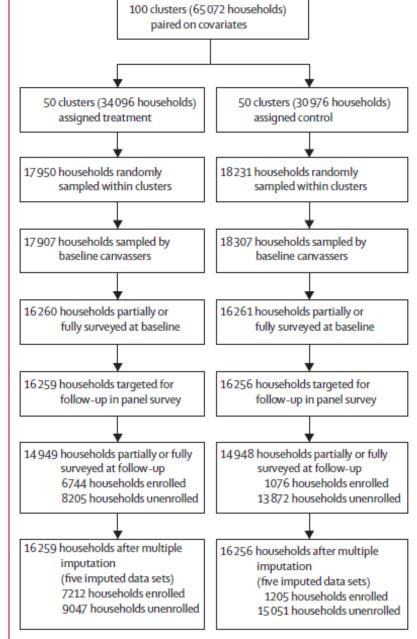
Referred to as the "gold standard"

#### **Classical Design of Randomized Experiments**







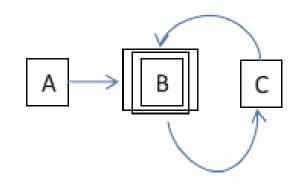


Source: King, 2009

### Complex adaptive systems

- Several pathways exist to implementation.
- Factors/variables interact distinctly from one another, but with the ability to "adapt and learn."

Feedback



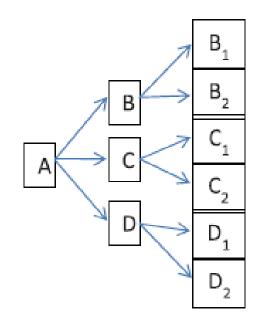
#### Path dependence

- It is the principle that the current state of the system depends on its previous history (Paina and Peters, 2011).
- How something is implemented depends on how something similar was implemented before (Torfing, 2009; Page, 2006; Howlett and Rayner, 2006).
- We cannot attribute the outcome to any one of a number of factors (Page, 2006).

### Path dependence (cont.)

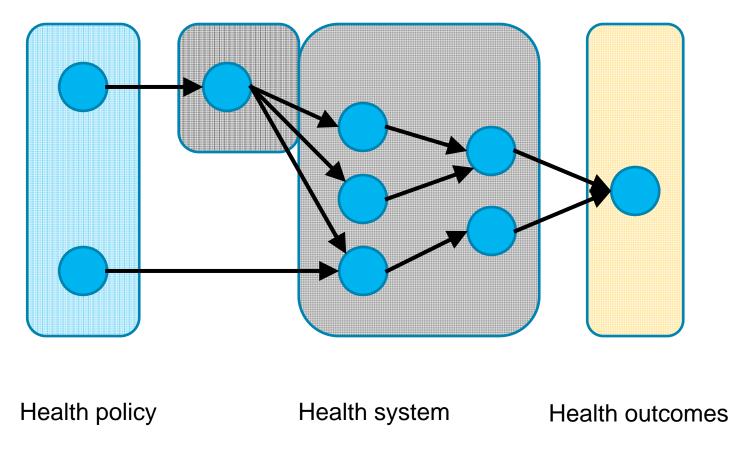
#### Example:

Health reforms, such as the introduction of social health insurance, may work well in a developed country but cannot be simply copied to a developing country and have similar results.



# Challenges in conducting policy research

Ideal situation to link health policy to health systems and outcomes



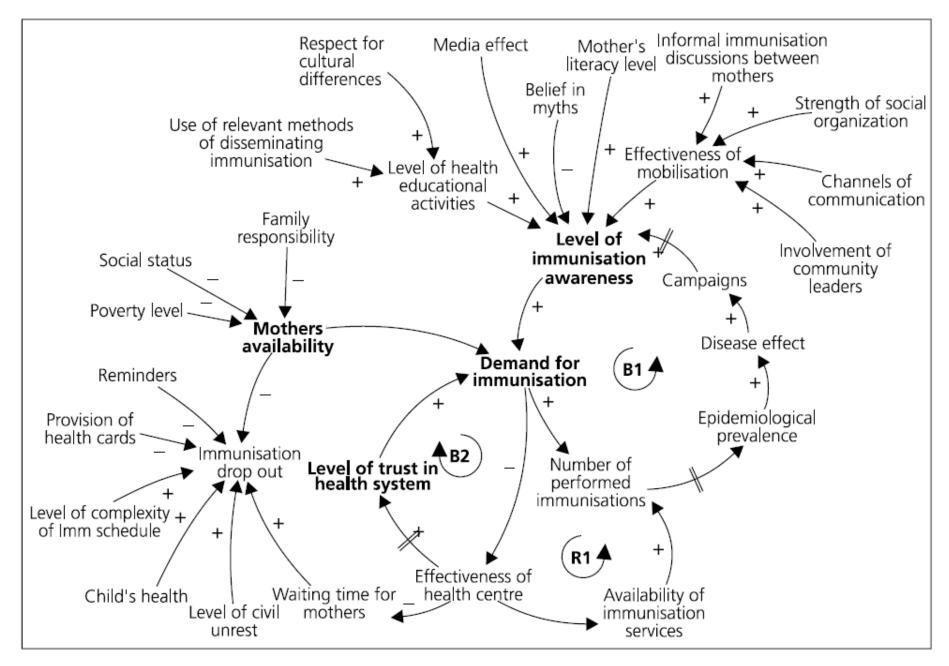


Figure 4 Causal loop diagram for demand for immunization dynamics Source: Rwashana, 2009

#### Challenges

- Outcomes are influenced by factors external to the policy intervention.
  - Hence, difficult to measure attribution.
  - Latent variables are not accounted for.
  - There is a hierarchy of dependent variables
  - E.g, if organizational change is presumed to lead to better outcomes (e.g., integration). Does the organizational change occur? Does that change lead to more effective collaboration and better health services and health outcomes?
- Policy implementation can be a moving target with adjustments made over time. It can also be a long process that has to be shortened for research purposes.

### Challenges

- Several components of policy research interact with each other, and this interaction varies by the policy being studied and the specific context.
  - We can encounter complex interaction variables.
- Using facility and administrative statistics in an environment with poor monitoring is difficult.
- Judgment about outcomes may be about the appropriateness of the policy rather than its implementation.

### Challenges

- We cannot conduct a controlled experiment in policy research.
  - We cannot determine the steps the policymakers and other players in the field will make.
- There can be a lack of transparency, collaboration, and communication between the government and development partners and within many agencies.

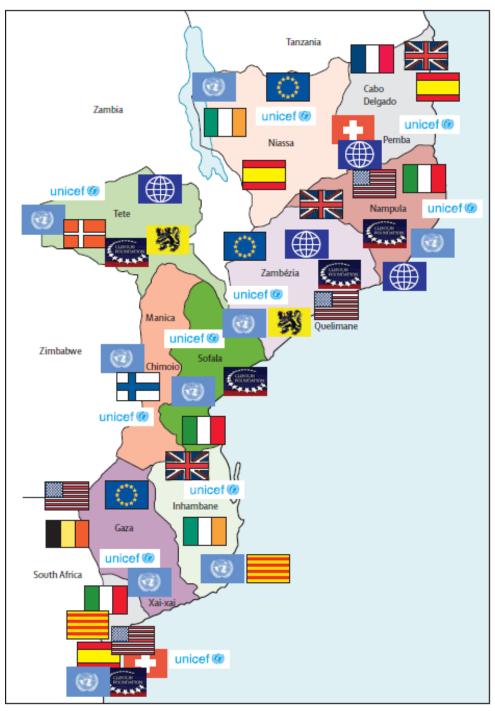


Figure 2: Focus districts for selected development partners in maternal and child health, Mozambique, 2008

### Conclusion

#### Conclusion

- It is difficult to establish causality since policy implementation is a complex process.
- We need to use the best methodology possible for each scenario.
- Policy implementation research can help explain the link between policy development and program implementation.
- Clear research recommendations should indicate the programmatic and policy relevance of the findings.
- We need to communicate our findings to other stakeholders in an appropriate manner.

## Thank You!

#### www.healthpolicyproject.com

The Health Policy Project is a five-year cooperative agreement funded by the U.S. Agency for International Development under Agreement No. AID-OAA-A-10-00067, beginning September 30, 2010. It is implemented by Futures Group, in collaboration with CEDPA (CEDPA is now a part of Plan International USA), Futures Institute, Partners in Population and Development, Africa Regional Office (PPD ARO), Population Reference Bureau (PRB), RTI International, and the White Ribbon Alliance for Safe Motherhood (WRA).



