



THE WORLD BANK



Impact Evaluation: From Promise to Evidence

The Impact Evaluation of the New Essential Drug Procurement System of China

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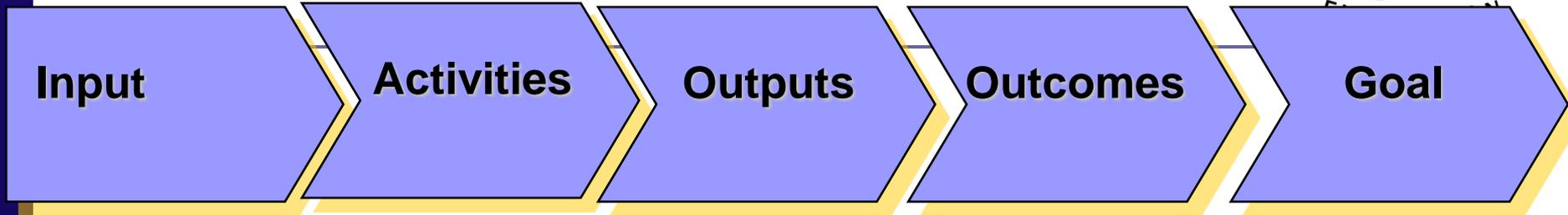
Beijing, China

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1. Background

- ❑ The current drug procurement system in China has a very limited effect in controlling the price and preventing the misuse of drugs.
- ❑ New essential drug procurement system: centralized drug procurement based on competitive bidding given the price, quality and quantity of essential drugs.

2. Result Chain



- | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <ol style="list-style-type: none">1. Investment to build a new county level procurement center and procurement platform2. Training Expense inputs3. Operational Cost inputs4. Funding for Evaluation | <ol style="list-style-type: none">1. Build new county level procurement centers and procurement platform2. Training3. Establish the new procurement policy and supplementary regulations4. Streamline the drug distribution system5. Build monitoring and evaluation system | <ol style="list-style-type: none">1. Lower prices of essential drugs2. Higher quality of essential drugs3. Improved accessibility of essential drugs | <ol style="list-style-type: none">1. Lower drug cost per illness2. Lower public drug expenditure over total public medical expenditure3. Lower the growth rate of total health expenditure (including private spending) | <ol style="list-style-type: none">1. Improved population health |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

3. Research Question

- Whether the implementation of county level new essential drug procurement system:
 - Improves the quality of prescribed essential drugs;
 - Lowers the cost for both the public system, and the household, and;
 - Increases accessibility to effective treatment.

4. Impact Indicators

□ Primary Indicators

1. County level drug price index
2. Quality index of sampled essential drugs
3. Proportion of essential drug over the total procured drugs

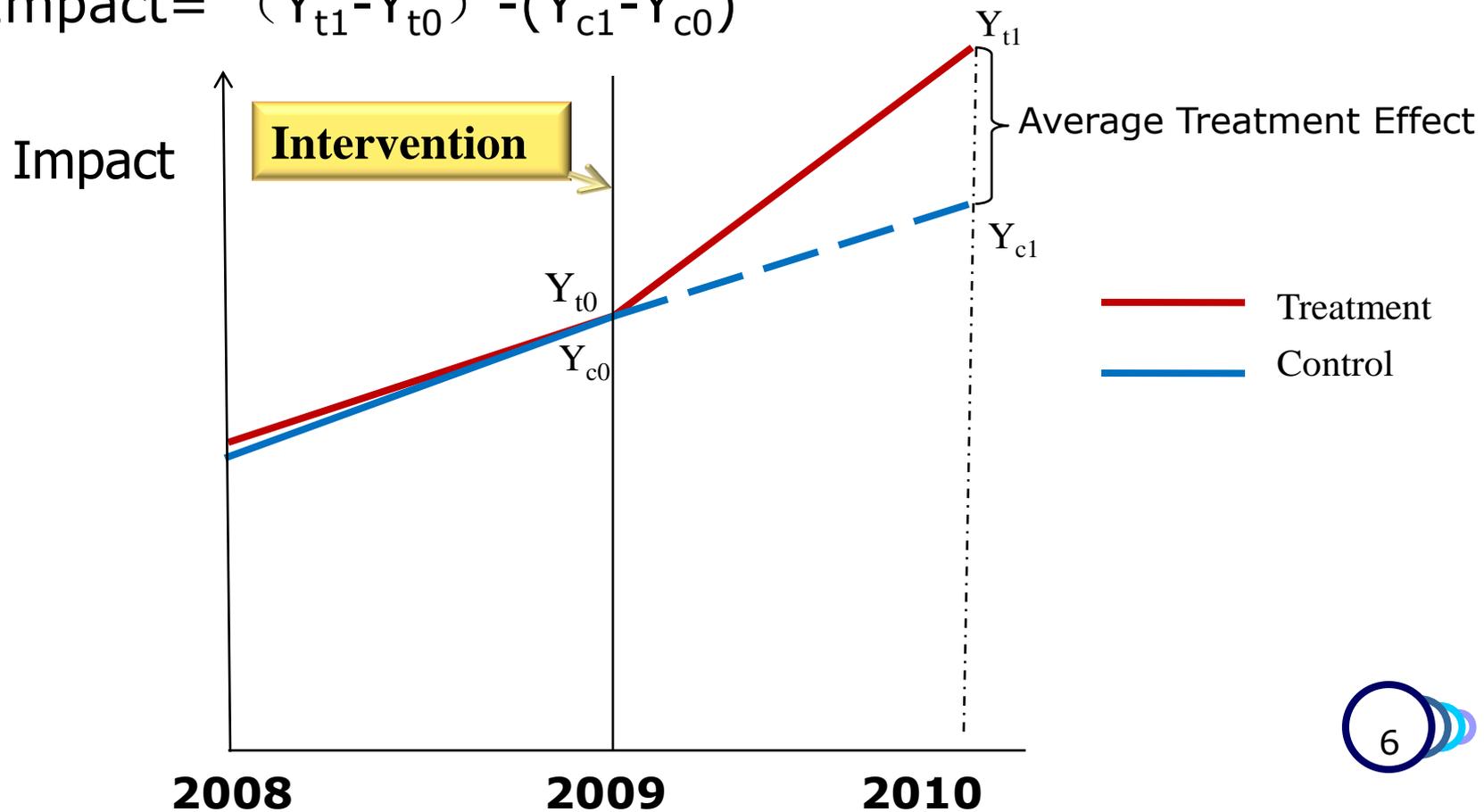
□ Secondary Indirect Indicators

1. Proportion of essential drug expenses over total hospital drug sales at the county level
2. Incidence rate of drug related complications especially due to poor pharma quality
3. Rate of treatment foregone due to high costs of care (at household level)

5. Identification Strategy

- Randomization
- DiD to control for any remaining differences between the treatment and control groups at baseline

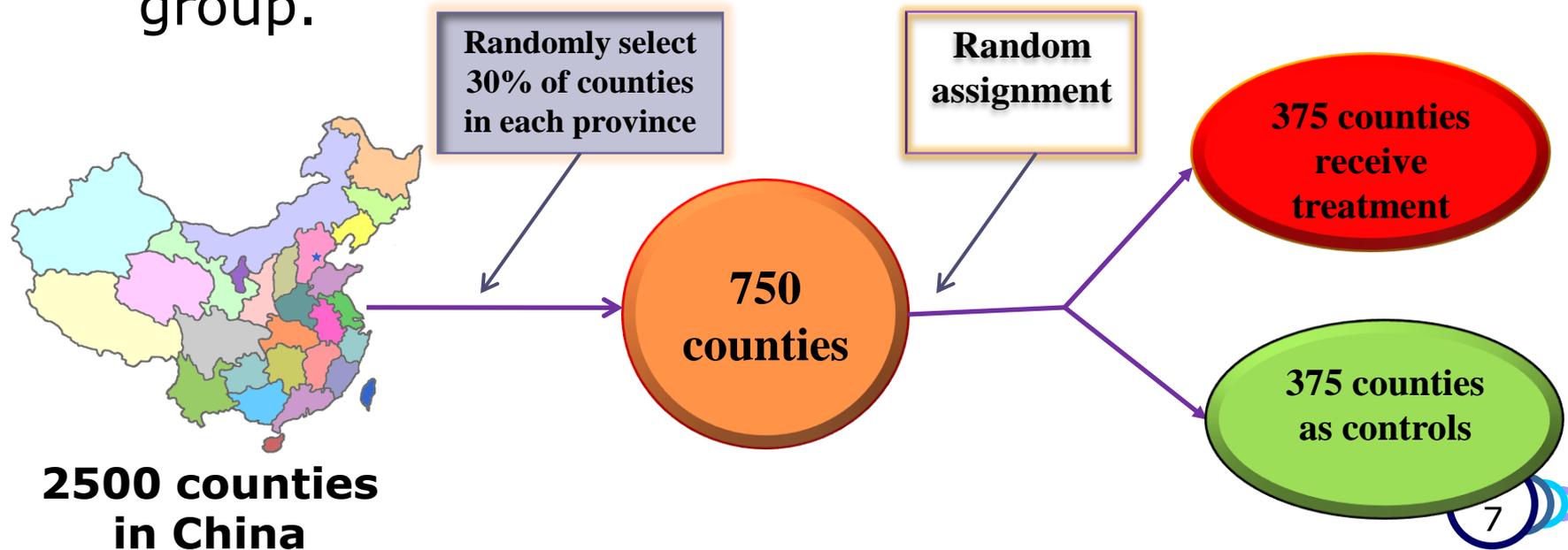
$$\text{Impact} = (Y_{t1} - Y_{t0}) - (Y_{c1} - Y_{c0})$$



6. Sample and Data

□ Sampling:

- Randomly select 30% of counties in each province.
- Randomly assign treatment (new essential drug procurement system) to half of the selected counties and the rest constitutes the control group.



6. Sample and Data (Cont'd)

□ Primary/Direct Indicators

1. County level drug price index

- Collect data from health bureau, drug inspection administration, essential drug procurement office, NCMS/healthcare security management center, and obtain weighted average drug price index

2. Quality index of sampled essential drugs

- Drug inspection administration

3. Proportion of essential drug over the total procured drugs

- health bureau, drug inspection bureau, essential drug procurement office

6. Sample and Data(Cont'd)

□ Secondary Indicators

1. Proportion of essential drug expenses over total hospital drug sales at the county level
 - Health bureau, NCMS/ healthcare security management center, and new survey
2. Incidence rate of drug related complications especially due to poor pharma quality
 - Health bureau and new survey
3. Rate of treatment foregone due to high costs of care (at household level)
 - New survey & 2008 Fourth National China Health Survey (for baseline measures)

7. Work Plan



Activities	Project Calendar												
	1	2	3	4	5	one year	1	2	3	4	5	6	
Conduct Literature Review													
Design the Project													
Case study , collect and analyze the regulations provisions of essential drug procurement.													
Design, test and finalize survey questionnaire													
Administrate survey													
Clean and analyze survey data													
Intervene													
Conduct data collection post intervention													
Clean and analyze survey data													
Organize conference and sollicitate comments on the project and draft report													
Revise and submit impact evaluation report												10	

8. Funding Sources

- Ear-marked Grant from Government Revenue
 - Central government
 - Local government

- International Support
 - The World Bank
 - The Spanish Impact Evaluation Fund for China
 - The World Health Organization
 - Others

Thank you!