THE WORLD BANK

IMPACT EVALUATION

Evaluating Impact: Turning Promises into Evidence

Reforming the regulated prices for public hospital services in the Sichuan province cities

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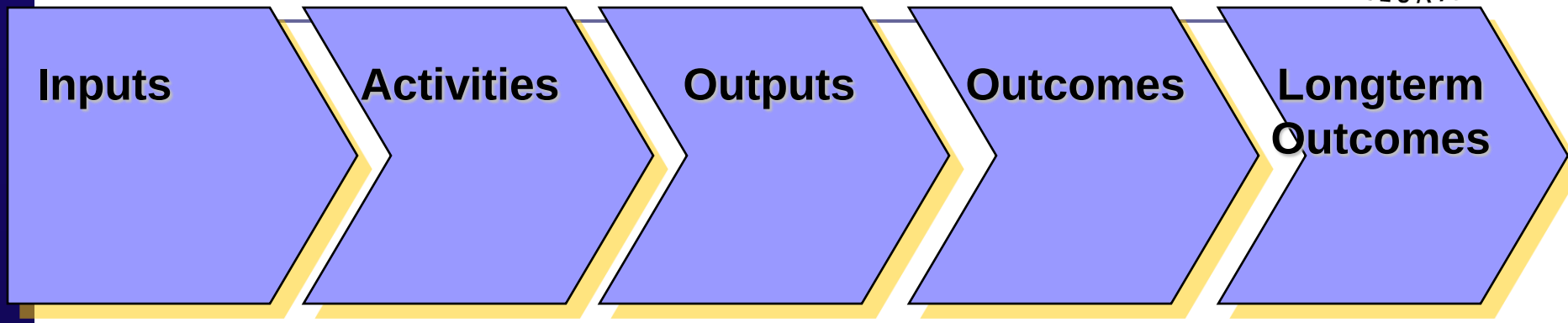
1. Background

- Hospital services are distorted by regulated prices:
  - High tech services: regulated price is higher than costs.
  - Human resources delivering most other services are underpaid.
  - Share of high tech services in patients health expenditures is very high.
- Wrong incentives:
  - Fee for service.
  - Physicians incomes are linked to hospital revenues.
- Quality concerns:
  - Oversupply of high tech services.
- Access concerns:
  - High prices in hospital services is a heavy burden for patients economies

2. Results Chain



Inputs

- Government financial support
- Human resources

Activities

- Estimating the real cost of medical services in public hospitals
- Establishing a new price regulation system
- Reforming human resources payment methods in public hospitals

Outputs

- Study on the cost of medical services in public hospitals
- New price regulation system
- New payment method for public hospitals human resources

Outcomes

- Decrease in the price of high tech hospital services.
- Decrease in out of patient fees.
- Increase in the quality of hospital services
- Improved the access to necessary hosptial services.
- Improved the behavior of service providers

Longterm Outcomes

- Increase in satisfaction of public hosptial patients
- Improved relationship between physicians and patients

3. Primary Research Questions

- The reform of price regulation for urban public hospitals:
  - Does it increase rationality of the structure of health service delivery in public hospitals?
  - Does it decrease the economic burden of patients?
  - Does it improve the patients access to necessary health services?

4.a. Outcome Indicators

- Expected outcomes:
  - Average fee of out patient visits (to measure the economic burden of patients)
  - Number of out patient visits per year (to measure the access of patients to necessary health services)
  - Share of high tech services delivery in hospitals revenue (to measure the rationality in delivery of high tech services)
  - Positive rate of high tech equipment tests (to measure the quality of medical service)
- Control indicators:
  - GDP of cities

4.b. Control Indicators

- GDP growth in cities.
- Population characteristics:
  - Average age of total population.
  - Expectancy of life in years.
  - Share of people older than 60 years in total population.
- Urban residents average income per year.
- Share of people under the poverty line in total population.
- Diseases (prevalence / incidence).
- Hospital characteristics:
  - Total hospitals revenue.
  - Number of beds in each hospital.
  - Number of medical professionals in each hospital.

5. Identification Strategy/Method

- Identify treatment and comparison groups to estimate the effect of the price regulation reform:
- Treatment: 3 types of price regulation are tested:
  - T1: - Decrease the price of high tech services.
    - Increase the price of other medical services.
  - T2: - Decrease the price of high tech services.
    - Keep the present price of other medical services.
    - Increase government subsidies to compensate the associated decrease of hospitals revenue.
  - T3: - Decrease the price of high tech services.
    - Increase in the price of other medical services excepting services mainly addressed to the poor, that are kept at current prices.
    - Increase government subsidies to compensate the associated decrease of hospitals revenue (smaller than in treatment 2).
- Control: cities where current price regulation is mantained.

6. Sample and data (1/2)

- Sample:
  - Unit of study is the city to avoid contamination of sample (patients going to other hospitals with lower prices if different systems are close)
  - 20 of the 21 Sichuan cities (Chengdu is excluded from the study).
  - Cities are assigned to three groups depending on their economic situation:
    - Group 1: 6 high economic growth cities;
    - Group 2: 9 medium economic growth cities;
    - Group 3: 5 low economic growth cities.
  - In each group, cities are randomly assigned:
    - 1 to T1; 1 to T2; 1 to T3; the rest to C (Control).

6. Sample and data (2/2)

- Data:
  - Administrative sources.
  - National Health Households Survey (2003 and 2008).
  - Population Survey.
  - Statistics Bureau (data on economic, population, and health trends).
  - Bureau of Medical Insurance.
  - Bureau of Finance.

7. Time Frame/Work Plan

- Total period: Oct. 2009 – Jul. 2011:
  - Jul. 2009: Evaluation design.
  - Aug. – Sep. 2009: design review and field visits.
  - Oct. 2009: Final evaluation design.
  - Oct. 2009 – Feb. 2010: baseline survey, estimation of the cost of hospital services, form the new price system.
  - Mar. 2010: training local officers on the new price system.
  - Apr. 2010 – Apr. 2011. Implentation of the new price regulation.
  - May 2011: Follow up data collection.
  - Jun. 2011: Conduct the evaluation study.
  - Jul. 2011: Conduct the Final Evaluation Report.

8. Sources of Financing

- Central and local government subsidies: 100 Rmb million
- The World Bank: x?