Financing the Health Sector : Fixed versus Performance-Based Payment

Experimental Evidence from Haut-Katanga

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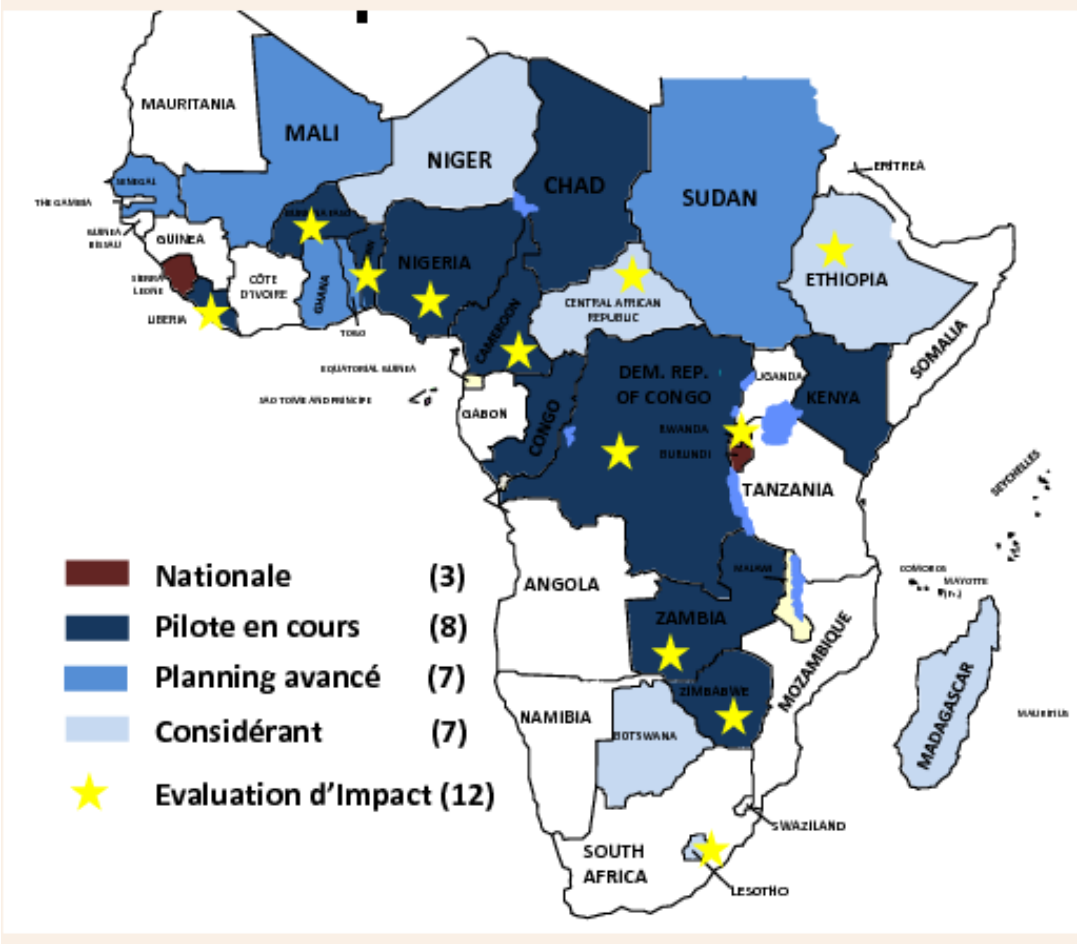
Road Map

- Context
- Research Question
- Empirical Strategy
- Flowchart
- Implementation of Performance-Based Payments
- Impact of Performance-Based vs Fixed Payments on:
  - Health Service Provision
  - Health Service Utilization
  - Health Facilities' Resources
  - Staff Motivation

Context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LESOTHO
Nationale (3)
Pilote en cours (8)
Planning avancé (7)
Considérant (7)
Evaluation d'Impact (12)

Context

In DRC, PARSS project started in 2007

- Health facilities construction et renovation
- Equipment, supplies and drugs
- Staff training
- Technical supervision
- Monitoring of administrative data reporting (SNIS)
- Service fee reduction

Research Question

- **Fixed Payment**:
  - Based on staff (number of health workers on governmental payroll)
  - No autonomy in payment allocation
- **Performance-Based Payment**:
  - Based on the quantity of patients for a given list of health services
  - Autonomy in payment allocation
  - Performance verification

Research Question

Do performance-based payments:

- Spur health workers into greater effort than a fixed payment?
  - Larger supply for health services?
  - Larger staff attendance?
  - More attractive health services (price, quality)?
- Increase health services utilization?
- Crowd out non-targeted services?

Research Question

This study does *not* address the question of the effects of:

- Payments volume
- Equipment, supplies and drugs
- Staff supervision et training

It focuses on the effect of **payment *mechanism***

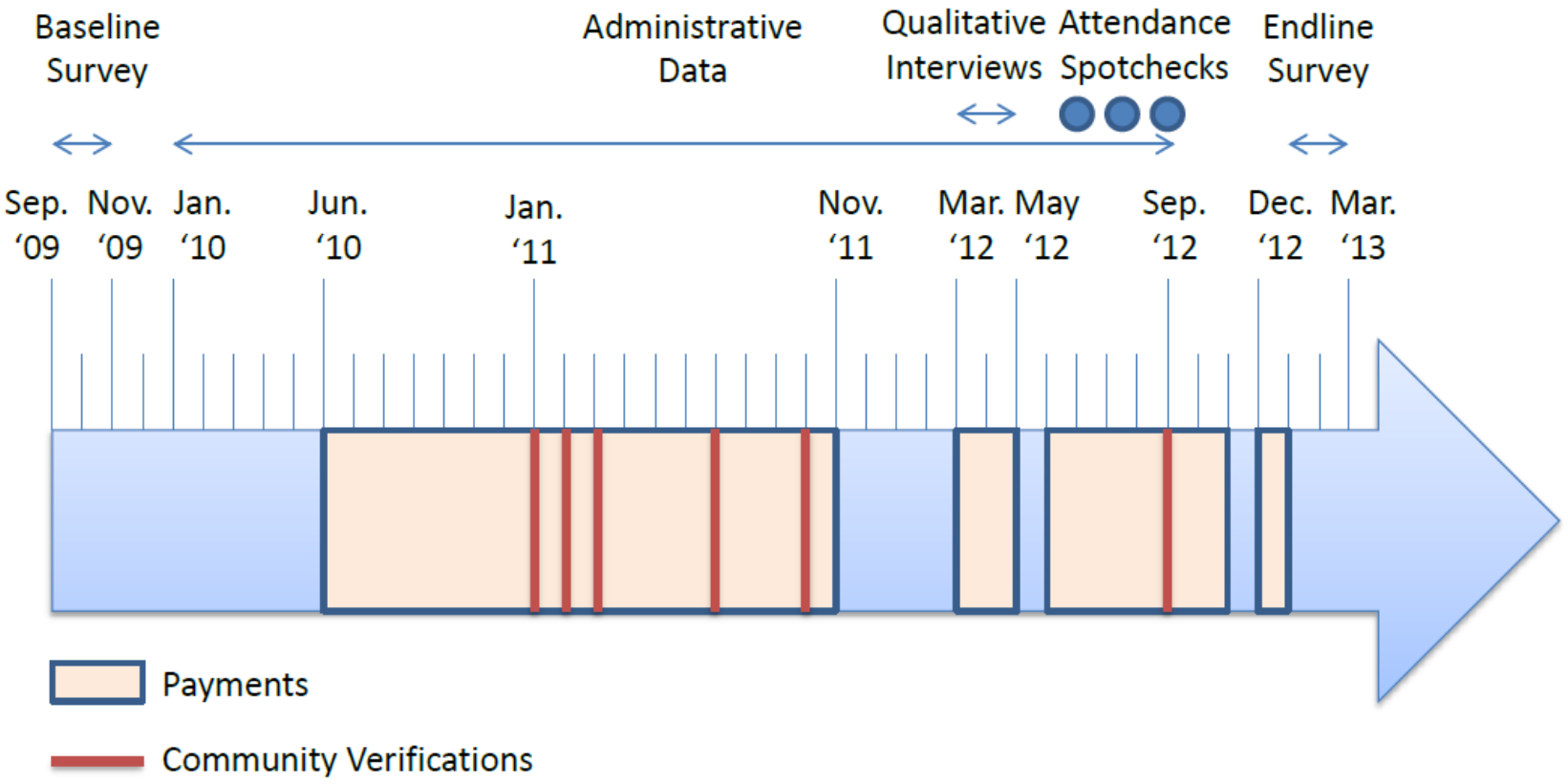
Empirical Strategy

- We want to compare health facilities outcomes under the performance-based payment mechanism with what they would have done under a fixed payment mechanism

- 96 health areas in Haut-Katanga were assigned to two groups:
  - Performance-based payments (PBF group, 48 health areas)
  - Fixed payments (comparison group, 48 health areas)
  - Random assignment => two identical groups to start with

- The comparison group provides a good counterfactual: how the PBF group would have done were payments fixed rather than based on performances

Study Flowchart



Implementation of PBF

Payment Calculation

- 7 targeted services for all health facilities + 3 for health referral centers (= 75% of total service utilization)
- Based only on the quantity of services - no link to quality
- From June 2010 to June 2011
  - Fee-for-service system
  - Payment volume to the comparison proved higher than to the PBF group during the first six months because of lack of adjustment of the two total envelopes
- From July 2011 to September 2012
  - Point System
  - Exact same envelopes for the two groups

Points Associated with Targeted Services

Service	Indicator	Relative Price (USD)
Services targeted at health centers and referral health centers		
Curative care	Per new curative consultation	$0.6
Institutional delivery	Per delivery at the health center	$5
Obstetric referral	Per pregnant woman referred to the referral center/hospital	$5
Full childhood immunization	Per fully immunized child	$3.5
Prenatal care	Per prenatal care consultation	$1.2
Tetanus toxoid vaccination	Per 5th dose of tetanus toxoid vaccination	$2
Family planning	Per woman that uses a modern method of family planning	$4.5
Additional services targeted only at referral health centers:		
Caesarean section	Per caesarean section delivery (and decision-tree has been followed)	$30
Blood transfusion, when appropriate	Per transfusion episode	$5
Obstetric referral	Per delivery referred to the referral center/ hospital"	$5

Implementation of PBF

Performance Verification

- Registers :

– At the beginning of the pilot, health workers in PBF group tended to report patients for which they could not provide a consultation form

– In the longer run, the PBF induced higher accountability than fixed payment (+20% health workers who systematically fill out consultation forms)

- Phantom Patients :

– 6 community verifications over the total pilot (28 expected)

– On average 3 verifications per health facility

– No financial sanction except adjustment for the proportion of phantom patients

– 17% phantom patients in the comparison group, 21% in the PBF group (the difference is not significant)

Comparison Fixed vs Performance-Based Payments

Payment Disbursement

- Same frequency:
  - 28 payments were expected
  - 25 payments were executed (22 in due time, 3 with a delay)
- Same volume:
  - On average 500,000 FC per month per health facility in both groups
- Higher volatility of payment in the PBF group (+26%)
- Higher inequality of payments within the PBF group (+15%)

Impact on Staff Effort and Supply for Services

- Health facilities in the PBF group supplied more targeted health services than in the fixed payment group:
  - Staff attendance proved 14% higher
  - The number of prevention sessions for targeted services in the facility proved 43% higher
  - The number of outreach activities related to targeted services in the community proved from 30% to 50% higher
- Health facilities also tried to make targeted services more attractive
  - 20% to 60% reduction in user fees for targeted services and drugs
- No crowding out of non-targeted services:
  - No decrease in supply for non-targeted services
  - No decrease in service quality (but no increase either)

Impact on Service Utilization

Service utilization proved similar whatever the payment mechanism

- Same number of patients in the last month (800 per health facility)
- Same service utilization in the last 12 months:
  - Institutional delivery (82%)
  - Children immunized against TB (60%)
  - Prenatal visits per pregnant woman (3,4)
- Same health outcomes in the last 12 months:
  - New-born still alive = 98% versus 99%
  - Number of death per household = 0.14
  - Under-five height-for-height ratio

Impact on Health facilities' Resources

- Total revenue proved 42% smaller in the PBF group in the last month
  - Smaller revenue from user fees
  - Smaller revenue from drug sales
- 28% less salary for the health workers in the PBF group
- Lower equipment indices (both quantity and quality) (-0.6 standard deviations)

Impact on Staff Motivation

- Staff motivation increased under the PBF mechanism
- But four months after the pilot ended:
  - – Staff attendance was found lower in the ex-PBF group than in the ex-comparison group (-25%)
  - – Job satisfaction was found lower (-14%)
  - – Facility heads were found more concerned by financing volatility (+72%)
  - – Health workers were found more likely to attach importance to job remuneration (+34%)

Conclusions

- The PBF mechanism proved efficient at increasing the supply for the targeted health services
- It did not deter the supply for non-targeted health services nor service quality
- The PBF mechanism improved data reporting and accountability
- The PBF mechanism stimulated total staff motivation (although it crowded out part of its intrinsic component)

Conclusions

All these positive effects did not lead to improvements in service utilization

- Link performance to service quality?
  - 80% of households declared that the main source of satisfaction/unsatisfaction is service quality
  - User fee reduction as a bad signal on health service quality?
- Stimulate the demand for health services
  - The main obstacle reported by the households is the lack of awareness on health service benefit
  - Purchase effort from health staff to increase awareness?
  - Combine PBF with demand-specific interventions (conditional cash transfers, awareness campaigns, etc.)?