EVALUATING PERFORMANCE-BASED FINANCING IN THE HEALTH SECTOR: EVIDENCE FROM AN IMPACT EVALUATION IN CAMEROON

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RBF Definition

- Results-Based Financing (RBF) is a cash payment or nonmonetary transfer made to a national or sub-national government, manager, provider, payer or consumer of health services after predefined results have been attained and verified.

- RBF is an umbrella term that encompasses various types of interventions that target beneficiaries (for example, conditional cash transfers), providers (for example, performance-based financing), and country governments (for example, cash on delivery).

Most common model so far: Supply-Side

Examples of PBF subsidies in Cameroon (23 indicators total)

- 7 Curative Care indicators, e.g.:
  - New Curative Consultation = 650 FCFA ($1.1)

- 10 Preventive Care indicators, e.g.:
  - Completely vaccinated child = 2500 FCFA ($4.2)
  - One patient tested for HIV = 1000 FCFA ($1.7)

- 6 Reproductive Health indicators, e.g.:
  - Delivery at the Health Center = 2500 FCFA ($4.2)
  - Each antenatal care visit = 500 FCFA ($0.85)

- Quality of care is measured and the score between 0 and 100 affects the overall payment by adding a bonus of up to 30% of the total.

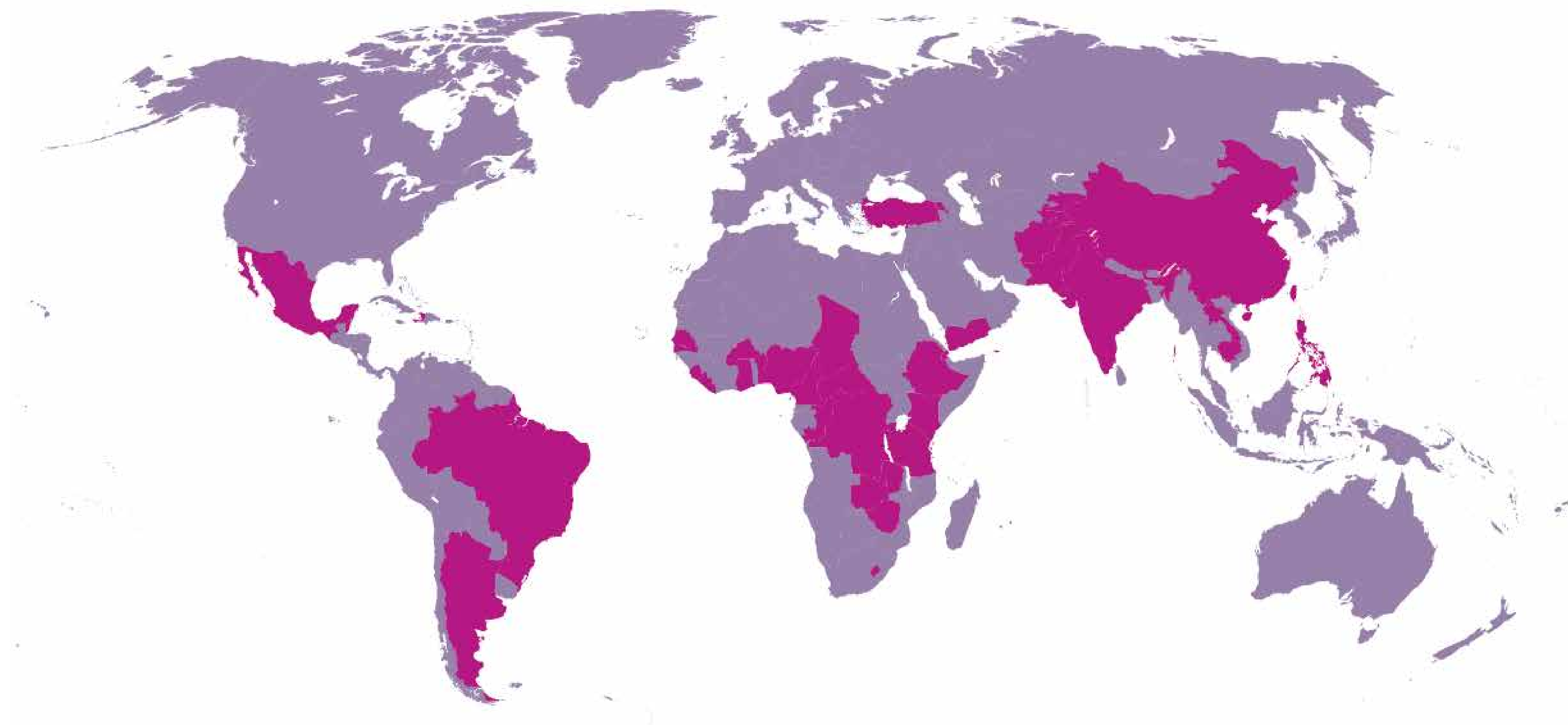
Health Results Innovation Trust Fund (HRITF) Impact evaluation portfolio overview

- Currently, there are 23 impact evaluations (IEs) in the HRITF portfolio;
- Results from Afghanistan, Argentina, Cameroon, DRC, India-Karnataka, Nigeria, Rwanda, Tajikistan, The Gambia, Zambia and Zimbabwe are available.
- STRENGTHS
  - Very broad impact evaluation portfolio (geographically and in terms of content)
  - Commitment to impact evaluation: no cherry picking of projects that are likely to be successful.
  - Impact evaluation is well funded
  - Health outputs and outcomes are measured at the population level.
  - Impact evaluation design is discussed from the beginning with government counterparts and World Bank operation colleagues.

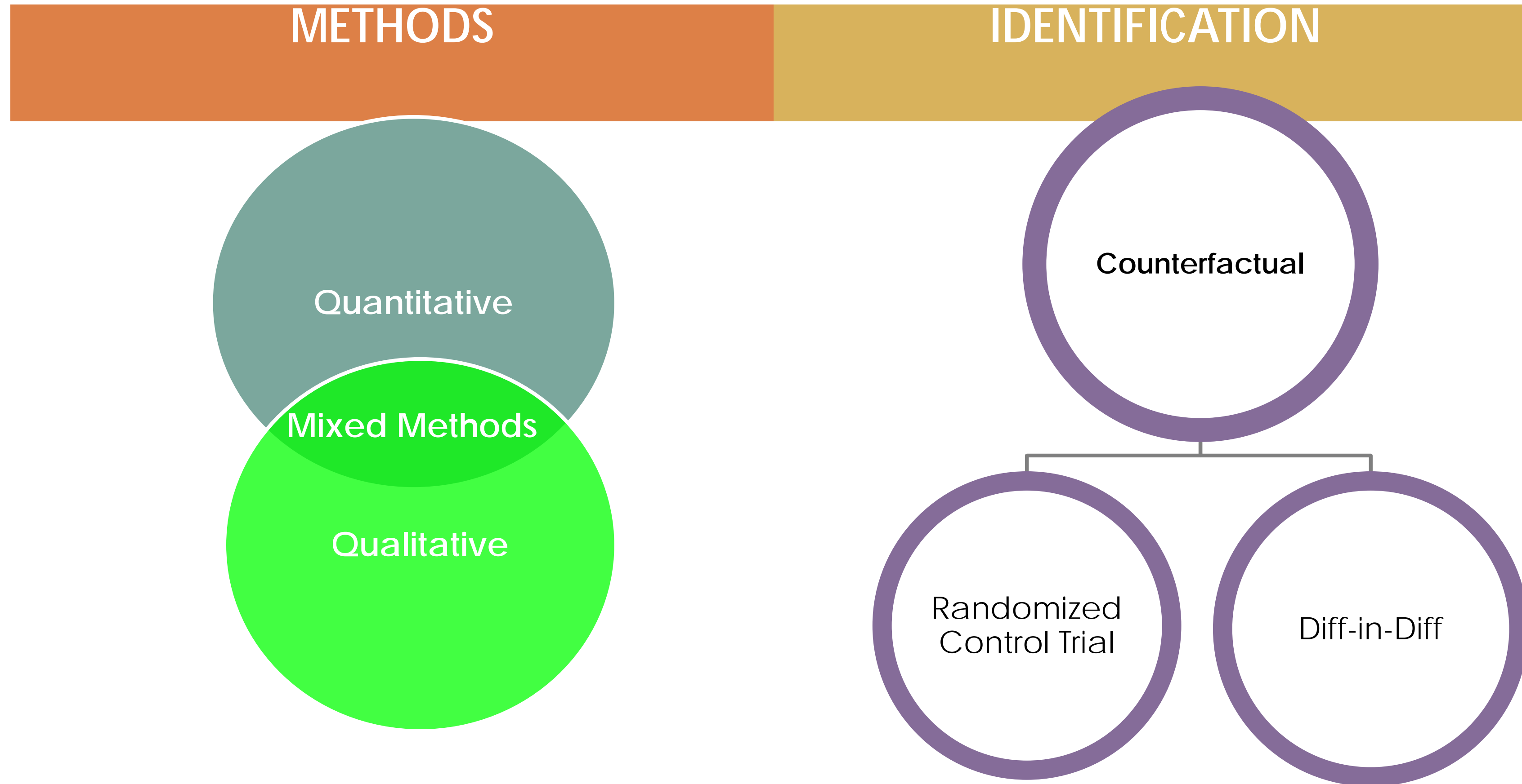
- Initially, a lot on whether and how and why RBF has an impact?

- But what could we learn more?

Where we are learning?



Designing and Implementing impact evaluations



Three generations of impact evaluations

- 1st generation: Does RBF Work?

- 2nd generation: Does some variation in RBF work better than another? Which component of PBF is driving the results?

  The Cameroon impact evaluation is an example of the 2nd generation

- Moving towards 3rd generation:

  - How does RBF compare and interact with other health system interventions (e.g. in Tajikistan citizen report card, continuous quality improvement or demand-side incentives in Rwanda)?

  - Focus on quality of care and its measurement, ongoing studies try to push the methodological frontier (e.g. Kyrgysztan, lab-in-the-field experiment in Burkina Faso)

Results from Impact Evaluation in Cameroon

Impact evaluation methods

- Regions
  - North West (Districts: Fundong, Kumbo East, Ndop, Nkambe)
  - South East (Districts: Buea, Kumba, Limbe, Mamfe)
  - East (Districts: Kette, Doume, Abong-mbang, Lomie, Messamena, Nguelemendouga)
- 200 primary health facilities (+ district hospitals and private health facilities)
  - All public health facilities
  - A sample of private health facilities
  - All of the primary care health facilities were randomized into 4 treatment groups; all hospitals were assigned to PBF

4 Treatment groups randomized at the health facility level

- T1
  - PBF group with performance-based bonuses provided to health workers
- C1
  - Same amount of financial resources as the PBF group, but not linked to performance; same level of supervision and management autonomy as T1
- C2
  - No additional resources but the same level of supervision as the PBF group; however, these facilities did not have management autonomy
- C3
  - Status quo

Intervention group comparison

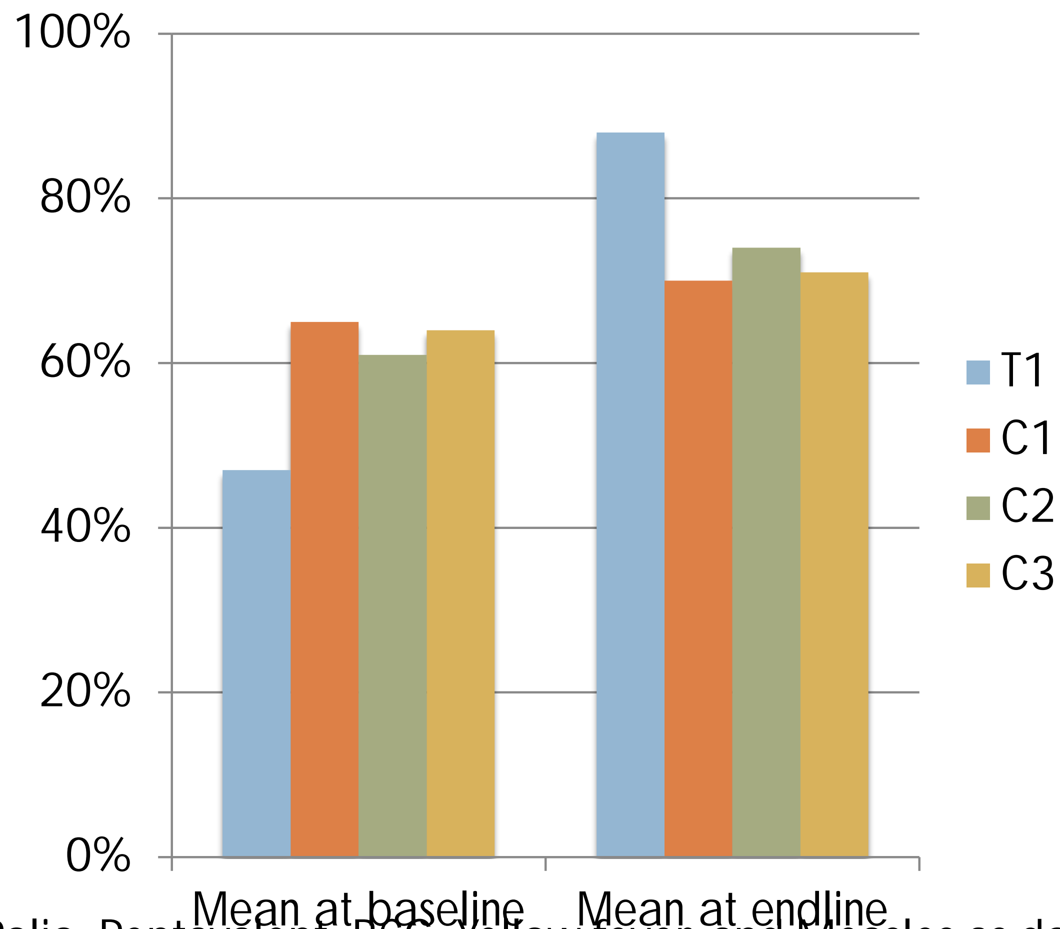
	T1 Complete PBF with performance bonuses for medical personnel	C1 PBF with subsidies that are not linked to performance	C2 Only supervision without bonuses or autonomy	C3 Status quo
Contract	Classic PBF contract	Contract stipulating the conditions of PBF for verification and supervision	Contract stipulating technical support in the form of supervision	No contract
Business plan	Yes	Yes	Simple business plan focused on intensified supervision	No business plan
Quality evaluation	Quality evaluation and feedback with quality taken into account in bonus payment	Quality evaluation with feedback as in T1, but no effect on payment	Quality evaluation with feedback as in T1	Quality evaluation with written feedback twice a year
Review/verification of service amounts	Review and verification of service quantities	Review and verification of service quantities	Review and verification of service quantities	Single quarterly statement without verification of the quantity of services produced
Payment	Payments tied to performance	Payments not tied to performance	No payment	No payment
Management autonomy	Management autonomy, including control of the facility's income.	Management autonomy, including control of the facility's income.	No management autonomy, continuation the status quo system	No management autonomy, continuation the status quo system
Monthly activity report submitted to district	Yes	Yes	Yes	Yes

Impact evaluation surveys

- Health facility survey at baseline (2012)/and at endline (2015)
  - Facility evaluation (number and type of staff, equipment, availability of medicine, supervision)
  - Health worker survey
  - Direct observation of consultations (Antenatal care, <5 consultations, outpatient adult consultations)
  - Exit interviews (Antenatal care, <5 consultations, outpatient adult consultations)
- Household survey at baseline (2012)/and at endline (2015)
  - A random sample of 16/20 households in each health facility catchment area
  - Households with at least one woman who had been pregnant in the previous 24 months were eligible for inclusion
  - Health service use

Household survey results

Complete child vaccination[1]



Post indicator	0.108**
Post*Interaction PBF	**0.164****
Post*Interaction Control 1	-0.015
Post*Interaction Control 2	0.029

[1]Polio, Pentavalent, BCG, Yellow fever, and Measles as documented in the child's vaccination card

[1]Denominator: children between 12 – 23 months

* p < 0.1, ** p < 0.05, *** p< 0.01

Summary of the results

	Effect of PBF (T1 & C3)	Effect of bonus + supervision (C1 & C3)	Effect of supervision (C2 & C3)
At least two antenatal care visits			

Health facility survey results

Summary of the results

	Effect of PBF (T1 & C3)	Effect of bonus + supervision (C1 & C3)	Effect of supervision (C2 & C3)
Antenatal consultations			
Skilled Delivery			
Postnatal consultations			
Modern contraception			
Polio 3/Pentavalent 3 vaccine			
Measles vaccine			
Tetanus vaccine among pregnant women			

Negative result : = *, = **, = ***; Positive result: = *, = ** = ***

Payment for health services

Payment for health services

- Three data sources
  - Household data on health care spending over the previous four weeks
    - Used as the primary source for analysis
  - Patient exit interviews
  - Health service prices as reported by health facilities
- PBF led to reduction in laboratory, x-ray and surgery fees as well as "other payments" to health staff over the past 4 weeks as reported by respondents in the household survey

Utilization results summary

- **Household survey:** child vaccination was the only indicator with a statistically significant increase in the PBF group (T1)
  - But these results should be interpreted with caution due to the high degree of facility bypassing observed in the data with half of households seeking care in a non-assigned health facility
- **Facility survey:** Increase in provision of Polio 3/Pentavalent 3, tetanus vaccine among pregnant women, and modern methods of family planning in the PBF treatment group (T1)

Summary of satisfaction results

- Increase in overall satisfaction of parent/care takers of children < 5 who received child health consultations
- Increase in health worker satisfaction with the availability of equipment, medicines, consumables and infrastructure in the health facilities in the PBF treatment group (T1)
  - The same trends were observed in treatment group C1 (non incentivized payments).

Summary of health service quality

- Health facilities in PBF treatment group (T1) had more qualified health workers present on the day of data collection
- PBF facilities (T1) also had more general equipment and more material for delivery and neonatal care
- There was a reduction in household spending on health care observed in the PBF treatment group (T1).
- No change in the interpersonal quality of ANC visits, or the technical quality of ANC and child health consultations inPBF treatment group (T1).

Conclusions

- Overall, PBF in Cameroon lead to significant increases in utilization in the PBF arm for services such as child and maternal vaccinations, use of modern family planning, but not for others like antenatal care visits and facility-based deliveries.
- However, for many positively impacted outcomes, the differences between the PBF group and the group receiving additional financing not linked to performance are not significant.
- In terms of quality, PBF increased the availability of inputs and equipment, qualified health workers, and a reduction in formal and informal user fees.

Questions?