Performance-based financing (PBF) in low- and middle-income countries :

What is the theory of change, actually ?

Elisabeth Paul[1,2], Oriane Bodson[1], Valéry Ridde[3]

[1] Université de Liège, Faculty of Social Sciences*, Liège, Belgium; Email: E.Paul@uliege.be ; Oriane.Bodson@uliege.be
[2] Université Libre de Bruxelles, School of Public Health, Brussels, Belgium
[3] Institut de Recherche pour le Développement, CEPED (IRD-Université Paris Descartes), Universités Paris Sorbonne Cités, ERL INSERM SAGESUD, Paris, France; Email: Valery.Ridde@ird.fr

Objective

To explore (i) the theoretical justification of PBF and (ii) the theory of change (ToC) in the health sector in LMICs

Introduction

Performance-based financing (PBF) is expanding in LMICs, despite it has been criticised for potential perverse effects (Paul et al. 2018); unintended effects are demonstrated (Turcotte-Tremblay et al. 2017). Attributing results to PBF as such is difficult because (i) health systems inherently comprise "structural" incentives and are subject to various reforms; and (ii) there are misunderstandings and controversies about the mere definition and the theory behind PBF.

PBF schemes encompass different components (e.g. financial premiums conditioned on reaching pre-agreed results, focus and feedback on key performance indicators, coaching, additional resources at facility level, …) and their designs may infinitely vary. Yet, **we still do not have a clear and consistent explanation of why and how PBF is supposed to produce results.**

Much of the current cross-disciplinary PBF research lacks a sound theoretical basis (Selviaridis & Wynstra 2015)

Theories

- **Fragmentation of the literature** and abundance of (often overlapping) theories that explain the rationale and functioning of results-based financing approaches (Jahn et al. 2013, Selviaridis & Wynstra 2015, Paul & Renmans 2018)
- Sina Health (2017) PBF course identifies a number of so-called "theories underlying PBF": Systems analysis; Public choice; Contract theory; Microeconomics and free market principles; Health economics & public health; Decentralisation; Good governance
- **Most commonly used theory to justify PBF = the principal-agent theory**:
  - Objective: to better align healthcare providers' incentives with populations' interests
  - Rests on very restrictive assumptions (see below)
- Other currents referred to justify PBF belong to the broad **New institutional economics** – Property rights theory (Meessen 2009), Transaction cost economics (Selviaridis & Wynstra 2015) – as well as: **Behavioural economics** (Eichler 2006, Chowdhury et al. 2013), **Political economy theories** (Norad 2015a)
- Few **non-economic approaches**: Management control theory (Selviaridis & Wynstra 2015), Operations and supply management (Selviaridis & Wynstra 2015), Contingency theory (Barnes et al. 2015)

Theory of change (TOC)

- **Theory-based evaluation** has progressively imposed itself as more appropriate approach to study complex issues
- There are few theory-based evaluations and ***partial* attempts** to "open the black box" of PBF and identify its ToC / programme theory / causal pathways / mechanisms / transmission of effects…:
  - World Bank's RBF evaluation toolkit (Vermeersch et al. 2012): outlines some possible ToCs
  - Perakis and Savedoff (2015): 4 *kinds of channels* through which results-based approaches could produce results: (1) financial incentive; (2) results indicators; (3) accountability; (4) autonomy
  - Nimpagaritse et al. (2016): *tracks for transmission of effects* for health facility performance: 1) income; 2) cash; 3) incentive; 4) information; 5) supervision & enforcement; 6) culture at provider level; 7) health system
  - Lohmann et al. (2017): *six categories of motivational mechanisms*: (1) periodic wake-up call to deficiencies in day-to-day practice; (2) direction and goals to work towards; (3) strengthening perceived ability to perform successfully at work and triggering a sense of accomplishment; (4) instilling feelings of recognition; (5) altering social dynamics, improving team work towards a common goal, social pressure; (6) offering a 'nice to have' opportunity to earn extra income
  - More elaborate intents of ToC found in literature include for instance:

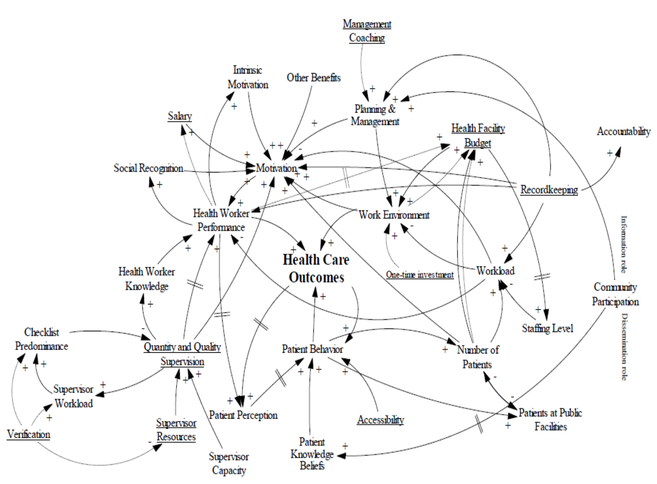

Figure 4. Causal loop diagram with the introduction of PBF.

***Source**: Renmans D, Holvoet N, Criel B, Meessen B. Performance-based financing: the same is different. Health Policy and Planning, 2017, 1–9*

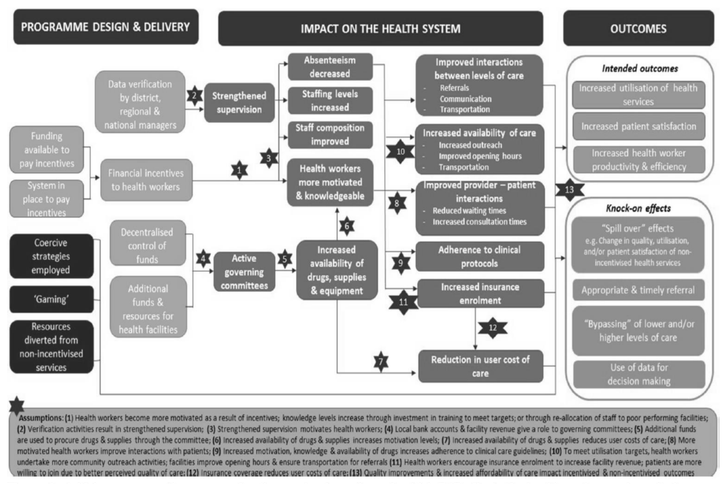

Figure 1 Initial programme theory mapping the mechanisms through which P4P affects the health system and results in outcomes.

Source: Borghi J, Singh NS, Brown G, Anselmi L, Kristensen S. Understanding for whom, why and in what circumstances payment for performance works in low and middle income countries: protocol for a realist review. BMJ Glob Health 2018;3:e000695

Discussion

- **Validity of economic rationale behind PBF is limited**
- **Principal-agent theory does not hold in complex systems such as health:**
  - Multitasking problem ⇔ multiplicity of outputs
  - Outputs are not observable at no cost, without noise ⇔ difficulty and cost of correctly measuring performance
  - Some outputs are not dependent on agents' efforts
  - Agents are not risk-neutral ⇔ unfairness of transferring risk to healthcare providers
  - Complexity of health workers' remuneration schemes ⇔ incoherence of incentive scheme
  - Health workers are not pure *homo oeconomicus*
  - Elusion of ancillary components beyond financial premiums
  - Does not take context into consideration
  - Little empirical endorsement of the P-A theory (Prendergast 1999)

⇔ *Growing consensus on the fact that the principal-agent theory is not appropriate to justify PBF* (Barnes et al. 2015, ToC working group 2017, Paul and Renmans 2018)

- **Review of experiences**: "all [PBF] programmes had weak theories of change at start-up" (Norad 2015b)

Conclusion

- The theories used to justify PBF to date are few and insufficiently credible
- Studies aimed at uncovering the ToC of PBF are recent and unfinished
- Most existing PBF ToCs are not theory-based
- Actors need to make the theories underlying their interventions more explicit, disentangling the PBF package
- Performance premiums conditioned on reaching a number of predetermined performance criteria may not be justified
- If PBF is justified neither by strong theoretical arguments, nor by generalizable evidence, it is definitely marked by a neoliberal ideology, and the promotion of lack of trust and competition over cooperation between actors in the health system
- Taboo: *Is the debate over PBF definition a way to conceal the debate over PBF ideology ?*

*The research was funded through the ARC grant for Concerted Research Actions, financed by the Wallonia-Brussels Federation