Performance-based financing in low-income and middle-income countries: isn’t it time for a rethink?

Elisabeth Paul,1,2 Lucien Albert,3 Badibanga N’Sambuka Bisala,4 Oriane Bodson,2 Emmanuel Bonnet,5 Paul Bossyns,6 Sandro Colombo,7 Vincent De Brouwere,8 Alexandre Dumont,9 Dieudonné Sédjro Eclou,10 Karel Gyselinc,6 Fatoumata Hane,11 Bruno Marchal,12 Remo Meloni,12 Mathieu Noirhomme,13 Jean-Pierre Noterman,14 Gorik Ooms,15 Oumar Mallé Samb,16 Freddie Sengooba,17 Laurence Touré,18 Anne-Marie Turcotte-Tremblay,19 Sara Van Belle,8 Philippe Vinard,20 Valéry Ridde9

ABSTRACT

This paper questions the view that performance-based financing (PBF) in the health sector is an effective, efficient and equitable approach to improving the performance of health systems in low-income and middle-income countries (LMICs). PBF was conceived as an open approach adapted to specific country needs, having the potential to foster system-wide reforms. However, as with many strategies and tools, there is a gap between what was planned and what is actually implemented. This paper argues that PBF as it is currently implemented in many contexts does not satisfy the promises. First, since the start of PBF implementation in LMICs, concerns have been raised on the basis of empirical evidence from different settings and disciplines that indicated the risks, cost and perverse effects. However, PBF implementation was rushed despite insufficient evidence of its effectiveness. Second, there is a lack of domestic ownership of PBF. Considering the amounts of time and money it now absorbs, and the lack of evidence of effectiveness and efficiency, PBF can be characterised as a donor fad. Third, by presenting itself as a comprehensive approach that makes it possible to address all aspects of the health system in any context, PBF monopolises attention and focuses policy dialogue on the short-term results of PBF programmes while diverting attention and resources from broader processes of change and necessary reforms. Too little care is given to system-wide and long-term effects, so that PBF can actually damage health services and systems. This paper ends by proposing entry points for alternative approaches.

INTRODUCTION

Ten years after the launch of the Health Results Innovation Trust Fund (HRITF), which aims to promote performance-based financing (PBF) in the health sector in low-income and middle-income countries (LMICs), and 6 years after publication of the paper ‘Performance-based financing: just a donor fad or a catalyst towards comprehensive health care reform?’,1 in which the authors argue that ‘performance-based financing can catalyse comprehensive reforms and help address structural problems of public health services […] and that it may contribute to profoundly transforming the public sectors of low-income countries,’ we think it is time...
to question the mainstream view that PBF is an effective, efficient and equitable approach to improving the performance of health systems.

PBF was conceptualised by its promoters—nearly all European or American—as an approach enabling health system reform in countries where past reforms had presumably failed. However, one can question in the first place whether other system-wide reforms, such as ambitious decentralisation or human resources reforms: (1) have actually failed; (2) have ever received sufficient financial support over the years; and (3) have effectively provided adequate funding to the operational level—which could actually be the critical issue to be solved. Indeed, for instance, the randomised controlled trial of PBF in Cameroon showed that, for most of the positive outcomes, there was no statistically significant difference between health facilities with the standard PBF package and a control group receiving all elements of PBF except the direct link between individual facility performance and additional financing.

PBF was conceived as an open approach adapted to specific country needs, even in fragile contexts; it is framed as ‘a tool for helping create better, more inclusive, and more accessible health services’ and a ‘systems reform approach, which offers an answer to the ‘how’ of achieving Universal Health Coverage and the Sustainable Development Goals.” In theory, the approach has the potential to foster system-wide reforms in relation to human resources (increased motivation), financial management (autonomy of health structures, management tools), health information and other aspects of governance. However, as with many policies, strategies and tools, there is a gap between what was planned and what is actually implemented. In fact, we argue that PBF as it is currently implemented in many contexts—under the mainstream, unsustainable, donor-funded and donor-driven approach—does not satisfy the promises and can actually damage health services and systems.

In this analysis paper, we present a critical perspective on how PBF is actually implemented. The coauthors of this paper are researchers, academics and public health experts from Europe, North America and Africa, working with recipient governments, in research centres and donor organisations, or as individual experts. We all share a strong knowledge and field experience and are concerned by what we have observed during the implementation of PBF programmes. Indeed, there is evidence that the open, reform-promoting ideal model of PBF is often implemented as a rigid blueprint or a ‘travelling’ model. Mostly financed by donors, implementation is often dissociated from existing health system institutions and does not foster effective system-wide reforms. We argue that PBF implementation was rushed despite insufficient evidence of its effectiveness, that there is a lack of ownership and that too little care is given to system-wide and long-term effects. We end by proposing entry points for alternative approaches.

PBF IMPLEMENTATION HAS BEEN RUSHED

PBF, as currently promoted in LMICs by the HRITF and other donors, was mainly designed by academics and professionals from wealthier countries as an innovative approach to improve health sector performance, without taking stock of the experience gathered by similar practices in high-income countries. This raises concerns, because PBF has not been particularly popular in wealthier countries; evidence regarding its effectiveness is mixed, and its efficiency could not be credibly demonstrated. Particular caution should be taken when introducing a reform in a system as complex as the health sector, and acting upon something as multidimensional and changing as actor motivation which may lead to unforeseen (or negative) consequences in the long term. Perverse effects are well known from the economics and management literature and include gaming, adverse selection, tunnel vision, distortion, crowding out of intrinsic motivation and of professionalism.

Since the start of PBF implementation in LMICs, concerns have been raised on the basis of empirical evidence from different settings and disciplines that indicated the risks, cost and perverse effects. Presented as a flagship by PBF promoters, the success story of Rwanda was questioned early. Nearly a decade later, evidence is still sparse and mixed:

► The jury is still out as to whether there is credible and reproducible evidence that PBF is effective. A recent Cochrane review concluded that the effects of provider incentives are uncertain (very low-certainty evidence), including [...] the effects of pay-for-performance on provider performance, the utilisation of services, patient outcomes, or resource use in low-income countries.

► PBF has been shown to be expensive. In Tanzania, PBF economic cost was twice as much as financial cost; in a low-income setting, the costs of managing the programme and generating and verifying performance data were substantial. Under the World Bank-promoted PBF model in Benin, for each US$1 paid to providers, about US$0.50 is used for verification, of which 39% goes to the implementing agency and 61% to the community-based organisations in charge of the community verification; this includes only the financial costs—for example, financial transactions that are a result of the verification activities introduced by PBF—and does not include economic costs, such as the time spent by district health management teams and implementing agency staff on verification, nor capital costs. In Burkina Faso, over the period 2014–2015, operating costs (in the broad sense) amounted to 30% of the total cost of PBF. Yet there is no evidence that PBF is efficient.

► In Rwanda, PBF has proved not to be equitable. Distortions and perverse effects predicted by several authors have emerged in field conditions. These include inducing oversupply of unnecessary...
services, gaming and data manipulation (including by controllers), cherry-picking of purchased services by PBF agencies, hiding stock-outs of essential medicines, respecting norms only during PBF supervisions, inducing work overload, uncertainty and undue penalisation of certain health workers, leading to dissatisfaction among health staff.\textsuperscript{25, 29, 39-45}

- The supposedly motivational effect of PBF on health workers may be reversed if the latter perceive it as unfair.\textsuperscript{44, 45}

- The consequences of poorly designed PBF schemes, as well as those of suddenly stopping the PBF programme (as occurred in Benin, Chad and Mali, for instance), include negative effects on both motivation and service delivery.\textsuperscript{46, 47}

In 2014, the Independent Evaluation Group of the World Bank raised a red flag. It found that multiple PBF pilots had failed and that ‘decisions were made to scale up regardless of weak, inconclusive, or incomplete pilot results.’ It stated that the World Bank had supported PBF with insufficient evidence that the approach is effective.\textsuperscript{48} Nevertheless, donors intensified support to PBF. Between 2007 and June 2016, the HRITF disbursed US$281.7 million, 68\% of which was disbursed over the last 3 years, when the majority of HRITF-funded PBF programmes were initiated (https://www.rbfhealth.org/mission). The number of bilateral and multilateral donors that fund PBF has increased in the past 3 years. In 2017, the World Bank recognised that ‘[m]ore research is needed to assess the effectiveness of [performance-based] schemes, and their impact may depend on existing conditions.’\textsuperscript{49}

**PBF IS A DONOR-DRIVEN SOLUTION**

The PBF approach was pioneered in very specific contexts (postconflict or failed states: Cambodia, Haiti, Rwanda, Burundi) by a close circle of consultants and researchers.\textsuperscript{2} From small-scale pilot projects, PBF was first scaled up in the atypical context of Rwanda. The first reported results supported PBF with insufficient evidence that the approach is effective.\textsuperscript{48} Nevertheless, donors intensified support to PBF. Between 2007 and June 2016, the HRITF disbursed US$281.7 million, 68\% of which was disbursed over the last 3 years, when the majority of HRITF-funded PBF programmes were initiated (https://www.rbfhealth.org/mission). The number of bilateral and multilateral donors that fund PBF has increased in the past 3 years. In 2017, the World Bank recognised that ‘[m]ore research is needed to assess the effectiveness of [performance-based] schemes, and their impact may depend on existing conditions.’\textsuperscript{49}

How do we explain this donor fad? The ‘results-based management agenda’ is tempting for donors,\textsuperscript{53} especially in a climate of global financial recession. Moreover, just as was observed with the dissemination of New Public Management, ‘[a] new cottage industry of consultants has been spawned by this results-oriented […] strategy.’\textsuperscript{54} Indeed, consultants and international agencies increasingly play a brokerage role in global health governance, and especially in PBF dissemination, at the expense of domestic initiative and ownership.\textsuperscript{55} As Pavignani and colleagues\textsuperscript{56} pointed out, PBF has been disseminated from the start in an ‘evangelistic’ way. Currently, two closely interlinked networks promote PBF: SINA Health, which organised 62 PBF courses (http://www.sina-health.com/), and the PBF community of practice (CoP) (http://www.healthfinancingafrica.org/). The PBF conceptualisers co-opted and trained a growing number of ‘PBF champions’, who in turn were sent to neighbouring countries to spread PBF. While the CoP was set up to encourage open debate, the underlying personal and institutional interests allow for little controversy.

As Barnes and colleagues pointed out, the RBF Health blog “is revealing in the positive bias attributed to performance approaches to health system reform. None of the 38 blog entries published as of July 2014 were overtly critical or specific about potential limitations of PBF. […] challenges were weighed against an extensive list of the advantages to PBF in each of these entries and, in some cases, stories of successes from PBF flagship countries […]. Such a positive bias is unsurprising given the amount of money the World Bank has invested in these programmes as flagships of its Health, Nutrition, and Population section and some of the positive gains arising from the project. However, the use of PBF-friendly bloggers—implementing partner NGOs such as Cordaid, World Bank consultants, and representatives from ‘success story’ country health ministries—and the lack of representation of some of the limitations of or potential alternatives to PBF—and of those who are more hesitant about its transformative power – reinforce the positive bias.”\textsuperscript{55}

The enthusiasm emanating from the CoP is not supported by solid evidence that PBF is an effective and efficient approach, despite the circular argument that its adoption by LMICs is an indicator of its success. Many professionals seemingly just follow suit because they would lose top-ups or opportunities for work or consultancy if they did not adhere to PBF. This may be especially the case for African researchers, who have fewer research grant opportunities and tend to rely a great deal on consultancy.\textsuperscript{37} Even more worryingly, this is also the case for researchers in general: publication bias and conflicts of interest seem particularly prevalent in relation to this subject.\textsuperscript{3, 35} Several coauthors of this paper have endured moral pressure and even threats for daring to express concerns about PBF programmes in countries and/or for trying to find out what is actually happening during programme implementation.
Ultimately, money may be the force driving recipient countries’ adoption of the PBF agenda, but donors also use political pressure and other methods (eg, promises of funding and study tours to ‘success story’ countries) to persuade countries to ‘buy’ PBF.\(^6\) This is especially perverse in distressed contexts: ‘as observed in Haiti, lack of positive evidence is not enough for a powerless [Ministry of Health] to reject a strongly-advocated and generously-funded approach.’\(^60\)

**PBF MAY ACTUALLY WEAKEN HEALTH SYSTEMS**

Based on our experience in the field in a wide array of countries including Benin, Burkina Faso, Cameroon, Democratic Republic of the Congo (DRC), Haiti, Mali, Niger, Nigeria, Rwanda, Senegal, Uganda and Zimbabwe, we have observed that the way PBF is actually implemented under donor pressure departs markedly from the ideal of an open approach enabling system reforms in LMICs. It seems many countries adopt PBF because donors have convinced ‘PBF champions’ to buy it. Some champions do so because they see direct, personal benefits in the management of its machinery; in Benin, for instance, the acronym FBR—French for PBF—is popularly known as ‘financements bien ramassés’ (‘easy money’). Beneficiaries are not informed and do not entirely understand how and why they get certain PBF bonuses.\(^42\)\(^61\) As a consequence, in many countries, ownership of PBF is limited to a very small circle.\(^62\) This means, for instance, that the ministries in charge of finance and civil service are not really involved in its design and evaluation and consequently are unable to promote the necessary comprehensive reforms, such as increased financial autonomy for health districts and facilities, which supposedly is an essential component of the ‘PBF package’.\(^63\) PBF is thus not integrated into routine health systems processes, but instead is subject to separate evaluation missions, budgets and data collection tools.\(^8\)\(^9\)\(^42\)

By presenting itself as a comprehensive approach that makes it possible to address all aspects of the health system in any context, PBF monopolises attention and focuses policy dialogue on the short-term results of PBF programmes while diverting attention and resources from broader processes of change and necessary reforms.\(^55\) We argue that the latter include a wide range of improvements to: working conditions; human resources management (disparities in health staff distribution; quality of initial and vocational training; low salaries and poor accountability; plethora of untrained health staff, as in the case of DRC);\(^64\) transparency in use of financial resources; quality of care; integration of programmes and their monitoring and evaluation;\(^65\) accountability; performance of public financial management; engagement of communities (eg, as village health committees, traditional leaders and other community members) in governing the demand and supply of health services;\(^66\) and so on. Paradoxically, all of these are structural determinants of PBF’s own performance.\(^9\)\(^44\)\(^66\)

In all, PBF has huge opportunity costs: millions of dollars have been spent on complicated management and verification mechanisms that are not fraud proof, without producing sustained positive results (even though some have been observed) or strengthening health systems in any sustainable way.

**WHAT ARE THE ALTERNATIVES?**

In addition to independent country impact evaluations (see [https://www.rbfhealth.org/impact](https://www.rbfhealth.org/impact)), the HRITF itself is currently being evaluated and is slated for termination in 2022. HRITF acknowledges that, considering the ‘new evidence emerging from Impact Evaluations and strong experience on the ground, […]it is a good time to re-imagine [P]BF and gear-up for the future’ ([https://www.rbfhealth.org/mission-history](https://www.rbfhealth.org/mission-history)). Based on our field experience and scientific evidence, we plead in favour of abandoning the indiscriminate dissemination of a mainstream PBF model in the way it has been implemented so far, which does not take into account health systems’ complexity and sustainability. Instead, time, attention and resources should be devoted to strengthening key health system components to enable them to perform well. To paraphrase Stephen Kidd on another World Bank strategy that is ‘harming many of the world’s most vulnerable people’\(^67\): Isn’t it time for a rethink? We therefore exhort:

**Recipient countries:** (1) not to believe blindly that PBF—under whatever new label might be applied—can solve problems caused by weaknesses of their health systems (see Naudet for a historical perspective on this);\(^68\) (2) to dare to speak of problems they encounter with the way PBF is implemented and to make donors accountable for their mistakes; and (3) to first ensure that the basics are right (see below) before buying in to more elaborate mechanisms.

**Bilateral and multilateral donors** who still have not embarked on the PBF approach: (1) not to blindly follow the lead of the World Bank and like-minded donors in disseminating the mainstream PBF model, and (2) to remember that ‘the real driver of change will come from national stakeholders such as health workers [and community groups] demanding the right to health and pressuring governments to find the mechanisms to deliver this goal.’\(^69\)

**Recipient countries and donors:** to give greater consideration to foundational, systemic, sustainable and country-specific approaches to solving health system problems, such as: improved working conditions (functioning infrastructure and equipment, and so on); wage reforms (raising wages to a decent level aligned with position held) and balanced rewards and sanction strategies;\(^70\) human resources management to reinforce health staff self-esteem; financial premiums and respect for working in remote areas;\(^71\) strengthening dialogue arenas with and supporting the initiatives of communities;\(^9\) use of performance evaluation mechanisms that are not fraud.
information for local decision-making\(^2\); integration and strengthening of monitoring and evaluation institutions and related (local) accountability mechanisms\(^4\); support to demand-side empowerment\(^5\); reduction of financial and non-financial barriers to healthcare\(^6\); development of integrated medical records; and financial reforms to reduce fragmentation of financing for health service providers, to integrate their budgeting, cash management and financial reporting processes, to ensure fair allocation of resources and to provide sufficient—and sufficiently flexible—monies to the operational level.

Independent researchers (since PBF programmes are not likely to stop overnight): (1) to continue studying what is happening in the field, while minimising the risk of producing biased results\(^7\), and (2) to focus especially on how stakeholders transform the model in practice, how PBF changes their behaviour, and on PBF’s complex long-term effects on motivation, including the effects of its interruption following donors’ withdrawal.

Author affiliations
1Tax Institute, Université de Liège, Liège, Belgium
2Faculty of Social Sciences, Université de Liège, Liège, Belgium
3International Health Unit, University of Montreal, Montreal, Quebec, Canada
4Expert in district health systems based on primary healthcare, Groupe d’Appui à la Recherche et Enseignement en Santé Publique, Mboji-Mayi, Democratic Republic of the Congo
5Resilience, Research Institute for Development (IRD), Bondy, France
6Health Sector Thematic Unit, Belgian Development Agency (ENABEL), Brussels, Belgium
7Independent Consultant, Madrid, Spain
8Department of Public Health, Institute of Tropical Medicine Antwerp, Antwerpen, Belgium
9CEPED, Research Institute for Development (IRD), Paris Descartes University, Paris, France
10LADYD, Université d’Abomey-Calavi, Abomey-Calavi, Benin
11Department of Sociology, Université Assane Seck, Ziguinchor, Senegal
12Independent Consultant, Kigali, Rwanda
13Independent Consultant, Brussels, Belgium
14Independent Consultant, Bunia, Democratic Republic of the Congo
15Department of Global Health and Development, London School of Hygiene and Tropical Medicine, London, UK
16Global Health, Department of Health Sciences, Université du Québec en Abitibi-Témiscamingue, Quebec City, Quebec, Canada
17Department of Health Policy, Planning and Management, Mekere University School of Public Health, Kampala, Uganda
18Anthropologist, Research Association Miseli, Bamako, Mali
19University of Montreal Public Health Research Institute, Montreal, Quebec, Canada
20Ater Santé Internationale, Montpellier, France

Correction notice Since original publication of this article a French translated version has been made available and can be viewed in the online supplementary material.

Acknowledgements We thank Donna Riley for editing assistance, as well as anonymous colleagues who have contributed to this paper but have not been in a position to sign it for private or institutional reasons.

Contributors EP and VR had the initial idea for this paper. They wrote the first draft and all authors contributed to the development of ideas, writing the manuscript, commenting on drafts and approved the final version.

Funding EP and OB are funded in part by the ARC grant for Concerted Research Actions, financed by the French Community of Belgium (Wallonia-Brussels Federation).

Disclaimer The views expressed are those of the authors, and not necessarily those of their respective institutions.

Competing interests Some authors have been involved in PBF programmes as a researcher and/or consultant and/or staff of a donor agency.

Provenance and peer review Commissioned; internally peer reviewed.

Open Access This is an Open Access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/

© Article author(s) (or their employer(s) unless otherwise stated in the text of the article) 2018. All rights reserved. No commercial use is permitted unless otherwise expressly granted.

REFERENCES
10 Paul E, Remans D. Performance-based financing in the health sector in low- and middle-income countries: Is there anything there? Whereo it may be said, see, is new? In Health Plann Manage 2017.
18 de Savigny D, Adam T. Systems thinking for health systems strengthening: Alliance for Health Policy and Systems Research and


61 Chirimhutu V, Lindkvist I, Lange S. When incentives work too well: locally implemented pay for performance (P4P) and adverse sanctions towards born in home birth – a qualitative study. BMC Health Serv Res 2014;14:239.


