Can performance-based financing be used to reform health systems in developing countries?
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Abstract Over the past 15 years, performance-based financing has been implemented in an increasing number of developing countries, particularly in Africa, as a means of improving health worker performance. Scaling up to national implementation in Burundi and Rwanda has encouraged proponents of performance-based financing to view it as more than a financing mechanism, but increasingly as a strategic tool to reform the health sector. We resist such a notion on the grounds that results-based and economically driven interventions do not, on their own, adequately respond to patient and community needs, upon which health system reform should be based. We also think the debate surrounding performance-based financing is biased by insufficient and unsubstantiated evidence that does not adequately take account of context nor disentangle the various elements of the performance-based financing package.

Introduction
Performance-based financing (PBF) is an intervention that is gaining significant momentum as a solution to poor performance and the health worker crisis in low-income countries, particularly in Africa. Results indicate that PBF can play a role in increasing the productivity of health workers and have positive effects on health service utilization. The increasing use of PBF and its perceived benefits is now leading proponents to promote it as a strategy to address structural problems and to introduce more generalized health system reform, as testified by the recent paper in the Bulletin of the World Health Organization “Performance-based financing: just a donor fad or a catalyst towards comprehensive health-care reform?” We believe that the current optimism for such a strategy is unsubstantiated and underestimates important constraints to its implementation. It also risks falling into the trap of seeking a “magic bullet” solution to improve complex social systems.

Lack of evidence
PBF is an intervention designed to increase the quantity and quality of health care based on the theory that providing financial incentives to health workers for meeting output targets will motivate them to produce more or better outcomes and hence improve their performance. While the proponents of PBF make grand claims about its achievements and potential, an overview of the literature reveals that there is very little evidence to support these claims. This is largely due to the fact that it is very difficult to evaluate PBF. To date most studies have sweepingly attributed most or all changes at district health facility level to the PBF intervention with little or no regard for contributing factors or insight into how or why changes have occurred. To our knowledge, only one evaluation in Rwanda was carried out that isolates the effect of PBF incentives from increased resources. PBF is a comprehensive intervention in a complex, context-specific system. It seeks to improve the health sector by changing the organizational structure of the health system with regard to its financing mechanisms, information systems, planning, monitoring and evaluation. Any evaluation therefore needs to account for such methodological challenges and take into account the context (economic, social, political), as well as the content and the process of implementation. While the Rwandan study can give us more insight into that country’s particular case, the quasi-experimental evaluation designs are limited in evaluating interventions that have such high variance (context, content, process). Arguably, the focus should be on the reasons why and how the intervention is working rather than whether or not it is working.

What are the side-effects?
An overview of the literature on PBF not only highlights weak evaluations with questionable study designs but also several other anomalies. Possible adverse effects that financial incentives can have on health worker motivation and performance include: focusing on targeted services at the expense of other services (distortions); false reporting (gaming); cherry-picking patients that make it easier to meet targets; focusing on quantity rather than quality of services because it is methodologically easier to implement and monitor; increasing inequity by rewarding providers and facilities that are in a better position to meet targets; temporary improvements to services that cease as soon as the target is lifted; and dilution of intrinsic motivation. Despite significant documentation regarding these effects, there have not been any studies to evaluate their impact. This absence of evaluation of the possible negative consequences of PBF is reflected in a favourable bias for PBF in the literature. This is due both to a publishing bias towards studies that demonstrate successful implementation and the fact that most published authors are actively involved in the implementation of PBF initiatives.

Is it efficient?
After more than a decade of implementation it is time to give serious consideration to efficiency, i.e. maximizing the level and quality of health system output while minimizing costs. There is very little, if any, evidence of the cost-effectiveness of PBF. In addition to the extra funding needed to pay incentives and thus increase health-worker earnings, the transaction costs of PBF...
implementation are necessarily high. In most cases there is a need for new bodies or structures (from independent purchasing bodies to civil society organizations charged with community oversight) and strengthening of existing structures (especially health information systems). It would appear that the opportunity costs are also high. Health workers have increased reporting and administrative burdens due to the effort required for monitoring and evaluating performance targets. This is not only to enable the accurate allocation of premiums but also to ensure against “gaming” and should, although this is rarely the case, also monitor for potential adverse effects on non-targeted activities. As PBF gains increasing support and a growing number of countries implement, or plan to introduce it, it is paramount to start taking account of the real costs and benefits and financial sustainability of PBF interventions.

Is it replicable?

We notice in the literature that most claims of the success of PBF pertain to Rwanda, Rwanda was one of the first developing countries to implement PBF and was the first country to implement it on a national scale and is therefore an important case to study. However, the fact that PBF implementation has been successful in Rwanda is not grounds on which to believe that this intervention can be successfully replicated elsewhere – a concern shared by others, as recently published in the Lancet. The success (or failure) of PBF, as a comprehensive social intervention, is entirely dependent on the context. Many authors have defined conditions necessary for the success of PBF such as: strong leadership and management support, accurate information and reporting systems, increased funding and training. It would appear that Rwanda had the right conditions to effectively take on the challenge of implementing a successful PBF intervention. However, it should not be presumed that this is easily achieved elsewhere. Because PBF is a comprehensive package of reforms, a range of technical as well as contextual constraints can significantly hinder its implementation. Examples of constraints include: the need to have the management capacity at national and local level for effective implementation; the need for a flexible public finance management system that has the capacity to easily mobilize resources to the local level; and the significant methodological challenge of designing a reward system that is equitable, socially acceptable and that promotes quality as highly as quantity of both targeted and non-targeted services.

In addition to technical conditions, the contextual country conditions are equally important for success. As a package of interventions, greater analysis is needed into which elements of the package are most beneficial and the reasons for this. For example, the payment of incentives (the only defining feature of the package specific to PBF) in relation to other elements such as increased coaching, supervision, accountability, increased salaries and increased spending for health.

We argue therefore that a more comprehensive evaluation, supported by clear evidence, should be used to inform the debate about PBF. One of the main reasons for the Rwandan success is strong leadership and political will. However, this political motivation has effectively stifled debate on the topic, making it difficult for stakeholders to raise concerns, for example, about unintended adverse consequences. This sensitivity contributes to the favourable bias but is unhelpful in informing the discussion on the development of PBF. During recent field visits to Rwanda, we have observed waning enthusiasm from health workers who have become accustomed to receiving financial incentives and we therefore question their sustainability as a motivating factor.

Basis for reform

The relative success and interest in PBF suggest that it has a role to play in improving health-worker performance but we resist the notion that it can be applied as a foundation to health system reform in low-income countries. By nature, PBF is economically driven and focuses principally on public finance. Indeed it is assumed that PBF is equally applicable to other sectors’ but as such it overlooks the human dimension to development. The world health report 2008: primary health care now more than ever reminds us that better health outcomes are best achieved when service delivery is organized around people’s needs and expectations and that “putting people first” should be the focus of reforms. But the setting of service delivery targets actually risks creating a conflict of interest between patients and providers and can act as a disincentive to patient-centred care. For example, the successful referral of a pregnant woman to a health centre or hospital for delivery is, above all, dependant on the quality of the relationship between the woman and her health provider. It is counter-intuitive to expect that fulfilling antenatal targets will automatically create a good relationship that will ensure follow-up care and a positive outcome of her pregnancy.

PBF has international support because it fits neatly into the Millennium Development Goals aid paradigm for rapid progress on a few key indicators. But we think it is misplaced to focus on outcomes and results without a thorough understanding and development of the processes and relationships that are necessary to obtain sustained improvements and quality of care. While quantitative targets can encourage creativity to increasing access, we wonder if quality of health care can ever really be improved when the system and its providers focus on targets linked to financial gain instead of on patient-centred care and the needs of the populations they serve. History has shown us that there are no “magic bullet” solutions for reforming the health sector and, while good financial management is necessary, it cannot be the motor of reform.

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In the past 15 years, a performance-based approach to financing health care workers as a way to improve their work performance has become more widespread in developing countries, especially in Africa. In Burundi and Rwanda, this approach has been implemented at the national level, encouraging supporters to consider this approach not only a financing mechanism but also a strategic tool for reforming the health sector. We argue against this view, as purely performance-based interventions driven by economic considerations alone do not fully meet the needs of patients and communities, which should be the foundation of health system reform. We also think that the debate about performance-based financing is biased due to insufficient and unsupported evidence that does not take the context into account and does not differentiate the various elements of a performance-based financing scheme.
As African public health experts, we believe that PBF is interesting due to its potential. Having said this, we agree that implementing health reforms based on evidence is crucial. For example, some components of selective primary health care, such as growth monitoring, were implemented even though little was known about their cost-effectiveness. However, a recent evaluation of the primary-care approach has shown interesting results and the global public health community has since gained important knowledge on successful interventions in primary health care.

We think that Ireland et al. minimize the growing body of evidence on PBF implementation produced in recent years. Many studies have been published providing details on how to implement PBF and one experimental study has been published on the impact of the approach. Clearly, rigorous research is still needed, especially more theoretical and qualitative studies that address the “how and why” and test hypotheses of potential adverse effects of PBF. Continuous checking and integration of the PBF approach is needed during implementation and this should be informed by operational research aimed at aligning PBF with the existing health system.