Financing Healthcare in Africa

Strategic purchasing and fiscal policies for public health in sub-Saharan Africa

CASE STUDY

Comparison of strategic purchasing through performance-based financing in Cameroon and the Democratic Republic of the Congo

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Acronyms and abbreviations

DRC	Democratic Republic of the Congo
GFF	Global Financing Facility for Women, Children and Adolescents
IGO	inter-governmental organisation
LMIC	low- and middle-income country
MPA	minimum package of activities
NGO	non-governmental organisation
PDSS	*Programme de Développement de Services de Santé*
PHC	primary healthcare
PPA	performance purchasing agency
RBF	results-based financing
SSA	sub-Saharan Africa
UHC	universal health coverage
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund

1 Introduction

This case study was developed for the policy dialogue on 'Improving Health Outcomes through Strategic Purchasing in Public Health'. It forms part of CABRI's work on fiscal policy and value for money in public spending. The case study is one in a series on the subject of Strategic Purchasing for Health in sub-Saharan Africa. The strategic purchasing mechanism of interest in this case study is performance- based financing (PBF), which is introduced, and through the use of two country cases, the applications of PBF are illustrated and experiences are compared.

Strategic purchasing of health services is considered a central element of improving health system performance and making progress towards universal health coverage (UHC), especially in the context of constrained resources.

- ***Purchasing*** refers to the allocation of pooled funds to providers that deliver healthcare goods and services to the covered population, as per the defined benefit package.
- Traditional ***passive purchasing***, which is the most common method of acquiring services in many low- and middle-income countries (LMICs), involves the allocation of fixed budgets to service providers by ministries of health without engaging in an assessment of need or using the purchasing process to influence the quality and quantity of services provided.[1]
- ***Strategic purchasing*** is defined as 'active, evidence-based engagement in defining the service-mix and volume and selecting the provider-mix in order to maximize societal objectives'.[2]

Strategic purchasing has double benefits as it leads to the reduction of inefficiency losses in the system related to passive purchasing while improving system performance through the use of incentives and disincentives which modify provider and health-seeking behaviour.[3]

Table 1: Examples of strategic purchasing tools

- Prioritising primary healthcare (PHC) including protecting funding for PHC services and paying relatively high amounts for PHC services to reflect their priority
- Using incentives to limit the provision of high-cost services
- Paying providers relatively low prices for high-cost but low-priority services
- Using diagnostic-related groups together with a global budget to control overall levels of spending
- Linking some part of payment to performance (PBF)
- Introducing co-payments for patients who self-refer to hospitals or specialists, bypassing primary care
- Negotiating the price of medicines, for example by using reference pricing or information on cost-effectiveness

Source: WHO (2019). *Moving from passive to strategic purchasing*

1 https://www.r4d.org/blog/qa-strategic-purchasing-health/
2 https://www.who.int/health_financing/topics/purchasing/passive-to-strategic-purchasing/en/
3 https://www.slideshare.net/COP_HHA/strategic-purchasing-30-september/1

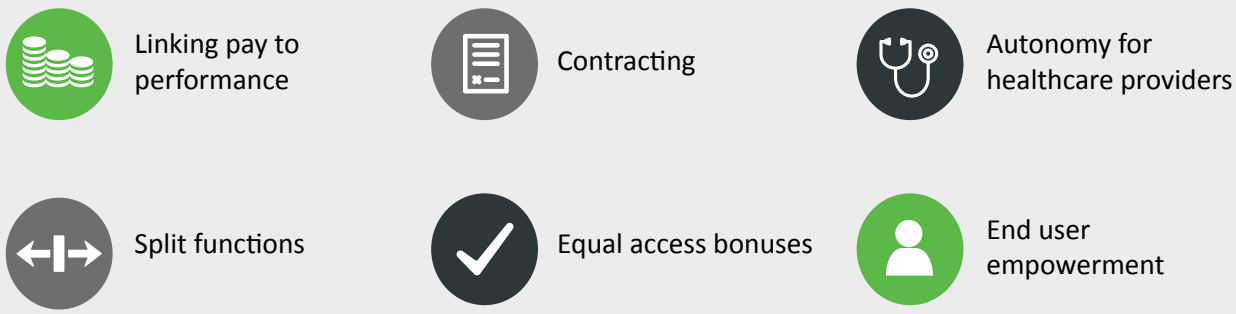
2 Performance-based financing

Performance-based financing (PBF) is a form of strategic purchasing whereby payments to healthcare facilities and healthcare workers are in part or wholly contingent upon taking measurable actions or achieving predetermined performance goals. PBF, alternatively called results-based financing (RBF), comprises a set of health system purchasing reforms meant to increase the coverage and quality of essential health services, as well as efficiency and equity, and have often focused on maternal and child health services and outcomes in developing-country settings. In addition to incentivising performance, PBF aims to address health system challenges through empowering healthcare workers to respond effectively through defining their role and goals in a contracting process and allowing them autonomy to adapt their response contextually. It also aims to encourage prioritisation of equitable access through targeted incentives for service delivery to the poorest and to those living in remote settings. Through the verification process on which payment is contingent, PBF aims to be patient-centred by seeking the feedback of service users on their satisfaction with the services received.[4]

PBF programme models differ in practice but all include three key components: a defined package of services, the performance-payment method (which includes the measurable targets against which performance payments are to be made) and a verification mechanism.[5, 6] As such, the success of PBF relies on the existence of a robust health governance and information system. Evaluation of services and outcomes requires a strong verification system that relies on systematic and detailed reviews of health facility records as well as community-level client tracing to confirm services rendered through patient interviews. It also requires a robust quality evaluation and assurance system including features such as quality checklists, which cover the core domains which the PBF targets.[7]

The use of PBF in global health began with donor-funded projects specifically in fragile and post-conflict settings.[8] The number of PBF projects in sub-Saharan Africa has increased rapidly since the first programme was implemented in Rwanda to address maternal and child health in 2006.[9]

Figure 1: Principles of performance-based financing



Adapted from: CORDAID (2017). *Strengthening health systems through RBF*

4 https://www.cordaid.org/en/wp-content/uploads/sites/3/2017/12/Cordaid_Healthcare_HSS_Strenghtening-Health-Systems-through-RBF_-Nov-2017_EN-HR.pdf
5 https://ieg.worldbankgroup.org/blog/how-incentive-payments-support-universal-health-coverage-theory-and-practice
6 http://documents.worldbank.org/curated/en/369941468325159289/pdf/Performance-based-financing-toolkit.pdf
7 http://documents.worldbank.org/curated/en/756781499432127674/pdf/117301-WP-P126389-PUBLIC-Cameroon.pdf
8 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5859812/
9 https://www.ncbi.nlm.nih.gov/pubmed/21515164/

As of 2015, The World Bank's Performance Based Financing Toolkit estimated that there were 34 PBF schemes at either pilot or national level in sub-Saharan African countries. The reception and evaluation of PBF has been mixed, with strong voices amongst both proponents[10] and detractors.[11]

A key challenge for PBF projects in African countries is that they have been donor-led and donor-owned, and the momentum behind them has been described as just another 'donor fad' given the thin evidence, mixed results and lack of local ownership behind it.[12] Despite its promise, PBF has so far not attained the expected impact. PBF is grappling with questions about whether its successes or setbacks lie in its design or implementation, that is, whether key assumptions inherent to PBF such as linking payments and results, independently verifying results, fostering managerial autonomy of facilities, etc., actually hold in practice.[13] Another important challenge worth noting is that the cost-effectiveness analysis has not made the case for PBF – while administering PBF is very costly, the difference in impact has not been shown to be significant enough to warrant the cost.

Over the past decade, PBF has been championed, implemented and scaled up especially in fragile, conflict and impoverished settings.[14] Several African countries have introduced elements of PBF in their health system financing with mixed results.[15] Specifically, PBF has been used in conflict settings, for example, the illustrative case in this study of the Democratic Republic of the Congo (DRC). Other cases include the Central African Republic, Northern Nigeria and Northern Uganda.

Purpose of comparative case study

This case study analyses and compares the use of PBF for health in projects targeting health in two countries with different contexts: Cameroon, a lower-middle income country which used PBF to improve stubbornly poor maternal and child health outcomes; and a fragile conflict-prone DRC where the largely donor-funded health system is implementing PBF to improve provision of care in remote parts of the country.

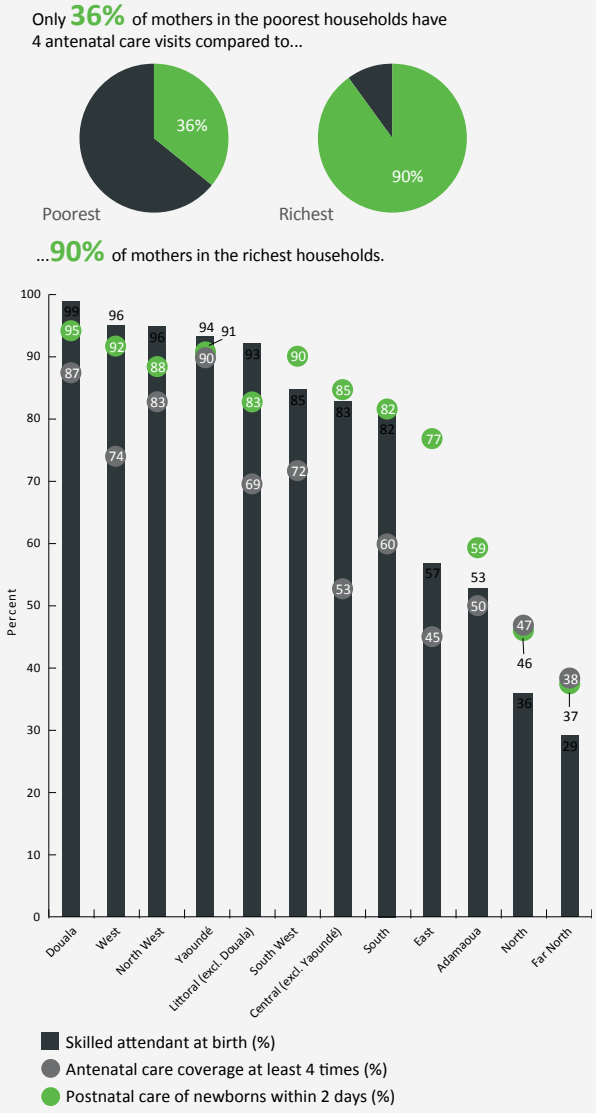
The lessons learned from the experiences in both countries can help policymakers in other sub-Saharan African countries to consider and make decisions about the usefulness and viability of implementing PBF in their own settings.

10 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6169665/
11 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5859812/
12 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5859812/
13 https://gh.bmj.com/content/3/2/e000693
14 https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0195301&type=printable
15 https://link.springer.com/article/10.1186/s41256-019-0094-2

3 Comparative analysis: Cameroon

Health status at a glance

Figures 2 and 3: Maternal health-seeking disparities by region and wealth in Cameroon, 2014.



Source: UNICEF (2019). *Maternal and newborn health disparities in Cameroon*

In spite of being one of the wealthier countries in the region, and considering the country's comparable level of health spending (US$65 per capita in 2016 compared to US$78 for the sub-Saharan Africa region), Cameroon's health indicators resemble countries that spend much less on health care.[16, 17] The country did not achieve Millennium Development Goals 4 and 5, and has sustained relatively high maternal and child mortality rates over the past decades in spite of some progress.[18] Although maternal mortality trends have declined by nearly half in the past 20 years, the rate remains remarkably high at 529 deaths per 100 000 live births, compared to an average of 534 for sub-Saharan Africa in 2017.[19] This high maternal mortality rate has been attributed, in part, to the disparities in outcome amongst women by geographical location, education level and socioeconomic status. One of the factors that has contributed to this disparity and hence poor outcomes is the persisting low rate of women delivering in health facilities. Health facility deliveries are associated with lower rates of maternal mortality, as most complications during birth which lead to adverse outcomes can be addressed effectively even in low-resourced facilities.[20]

The rates of seeking maternal care and skilled deliveries varies greatly. Figure 2 shows the steep disparities in skilled deliveries, and seeking antenatal and postnatal care by region, with the urban wealthier regions reporting almost complete coverage while the poorer more remote regions in the north have less than half of that. Figure 3 shows the differences in seeking antenatal care by wealth quintiles, with 90 percent of wealthy women attending all four antenatal clinic visits compared to only 36 percent of the poorest doing so.

16 https://data.worldbank.org/indicator/SH.XPD.CHEX.PC.CD?locations=CM
17 https://data.worldbank.org/indicator/SH.XPD.CHEX.PC.CD?locations=ZG-1W
18 https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)00838-7/fulltext
19 https://data.worldbank.org/indicator/SH.STA.MMRT?locations=ZG-1W
20 https://www.ncbi.nlm.nih.gov/books/NBK222101/

Cameroon is a lower-middle income country in central Africa endowed with rich natural resources, including oil and gas, minerals, high-value species of timber, and various agricultural products.[21]

The sustained high maternal mortality rate caused by the steep disparities in health-seeking behaviour and, thus, health outcomes for women based on geographical region, education and wealth have been of continuing concern to the government and other stakeholders in Cameroon. In a move to address this issue, a small pilot PBF project was implemented by a non-governmental organisation (NGO), CORDAID, in the East Region in 2004.[22]

The success of this project propelled the government of Cameroon to leverage the design and lessons from the CORDAID project to inform a broader public programme to address these disparities. The government had also been under intense scrutiny due to inefficiencies in management of public resources and was facing increasing calls for accountability in managing resources. In this climate, a PBF project employing a contractual arrangement which incentivised measurable results was particularly politically attractive.

Therefore, in 2008, the government of Cameroon sought funding from the World Bank Group to design and implement a PBF programme in a number of districts located in four out of ten regions in the country (the Littoral, North West, South West and East).[23, 24] Implementation began in 2011 in the Littoral region and was expanded in 2012 to include the North West, South West and East regions. The PBF programme was managed by the Ministry of Health, and the beneficiaries included public, private for-profit and faith-based facilities in these regions that signed a contract with a performance purchasing agency (PPA). The contracts defined a complementary package of activities (CPA) for hospitals and a minimum package of activities (MPA) for health centres in terms of which the results-based payments were made to facilities, and performance bonuses paid by facilities to their health workforce.[25] Verification contracts were signed between the PPAs and community-based organisations to conduct evaluations to support the PBF payments. The beneficiary facilities had the autonomy to design their bonus structure according to their own priorities and needs, and to purchase supplies and medical commodities from the most efficient source, as judged by themselves.

Through this structure, the PBF directly linked payments at the provider level with the quantity and quality of health services performed through the contracts. The PPA was responsible for verifying the quantity and quality of services as well as purchasing the services from healthcare centres on a fee-for-service basis. In Cameroon, the PPA role was played by local and international NGOs including CORDAID. The incentive structure of the PBF awarded bonuses for a list of services with a focus on mother and child care. The bonuses were adjusted for quality of service assessed by a quality checklist. An 'equity bonus' for providers was included depending on contextual factors such as degree of remoteness of the facility, and payment adjustments were made to encourage facilities to identify and provide services to the very poor who could not afford user fees and, therefore, received services free-of-charge.[26]

The PBF implementation was accompanied by a prospective randomised impact evaluation, which was carried out between 2012 and 2015 and produced mixed findings. The most significant finding attributable to the project was the increase in availability of essential inputs and equipment, qualified health workers, reduction in formal and informal user fees, and increased satisfaction among patients and providers.[27] Recorded increases in the use of maternal and child health services were associated with an increase in resources at the point-of-service with no discernible impact of the PBF component itself (the impact was analysed against a comparative group of facilities which only received additional resources without a provider incentive). That said, a qualitative evaluation reported increased 'motivation' of health workers through the incentive component of the project.[28]

From the design phase of the PBF programme, it was decided that the World Bank and other international actors' roles would be temporary, with complete local takeover of the purchasing role in all regions to facilitate sustainability and ownership of the PBF programme in the long term.[29] The transfer was conducted in 2014 in three phases, which transferred the ideas and expertise, the equipment and logistics, and finally the decision-making power to the local partners.

21 https://www.worldbank.org/en/country/cameroon/overview
22 https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-017-0278-9
23 https://www.who.int/alliance-hpsr/projects/alliancehspr_cameroon_report.pdf
24 http://documents.worldbank.org/curated/en/756781499432127674/pdf/117301-WP-P126389-PUBLIC-Cameroon.pdf
25 https://www.who.int/alliance-hpsr/projects/alliancehspr_cameroon_report.pdf
26 https://gh.bmj.com/content/3/2/e000693#DC1
27 http://documents.worldbank.org/curated/en/834601502391015068/pdf/WPS8162.pdf
28 https://gh.bmj.com/content/3/2/e000693
29 https://www.tandfonline.com/doi/full/10.1080/23288604.2017.1291218

4 Comparative analysis: The DRC

The Democratic Republic of the Congo (DRC) is a central African country with a long history of conflict and instability stretching back to colonial times. This conflict has included internal civil and political conflicts and has more recently included external conflict influenced by armed groups fleeing the Rwandan genocide. This state of affairs has meant that the DRC has remained in a perpetual state of fragility with a protracted humanitarian catastrophe. This has led to the quasi absence of state services, such as justice, healthcare and security, for which local populations have had to rely on a network of state and non-state actors.

In terms of health outcomes, although significant strides have been made in the reduction of infant and maternal mortality, the rates remain significantly high. Maternal mortality has fallen from 565 to 473 deaths per 100 000 live births over the ten-year period 2008–2017, and infant mortality has fallen from 91 per thousand live births to 70 during the same time period.[30] Other challenges also remain, for example, 43 percent of women are affected by domestic violence and poor access to health services. Nearly half of all children under the age of five are malnourished and stunted. The fertility rate remains one of the highest in the world at 6.02 births per woman, marginally reduced from 6.8 over the previous 20 years.

Although the DRC has technically been considered to be in a post-conflict state since 2003, the health system remains weak with lack of personnel and equipment in hospitals and severe shortages of medicine and supplies. The existing public sector health workers rarely receive any government remuneration due to a combination of out-of-date payroll lists, a proliferation of 'ghost workers',[31] and more general public financial mismanagement.[32] In the absence of a strong state actor, the governance vacuum has been filled by NGOs and inter-governmental organisations (IGOs) that lead policymaking, including in the health sector.[33]

Several donor-funded PBF projects have been carried out in recent years in the DRC, one of which is the *Programme de Développement de Services de Santé* (PDSS), launched in 2014 as a collaborative effort by different NGOs and IGOs led by the World Bank and including the Global Fund, UNICEF, UNFPA, USAID and the Gavi Vaccine Alliance.[34],[35] This effort is funded mainly by the World Bank with contributions from the other partners, and is administered by the country's Ministry of Health. The project was launched in 2017 in the provinces of Katanga, Équateur, Bandundu and Maniema with the aim of covering 140 zones in total, targeting 30 percent of the DRC's population.

The PDSS project aims to address the challenges in the health system by strengthening the health workforce, improving provider and facility efficiency, and ensuring accountability by injecting much needed resources and finance into the system through a performance-linked payment.[36]

The project model is based on contracts with public and faith-based facilities and health authorities at zonal (Zonal Health Teams – *Equipes Cadre de Zone*, ECZs) and provincial level (Provincial Health Divisions – *Divisions Provinciales de Santé*, DPSs). These facilities provide health and health management services as defined in the contracts in exchange for a cash payment made to facilities which can be used to cover staff bonuses and facility running costs.[37]

Similar to the PPAs in Cameroon, several semi-autonomous purchasing agencies, '*établissements d'utilité publique*' (EUPs), were created at provincial level. EUPs are designed to ensure accountability and strong links with the health ministry, as opposed to the use of an external NGO or implementing agency which would reduce the ministry's ownership of the project.

30 https://data.worldbank.org/indicator/SP.DYN.IMRT.IN?locations=CD
31 People listed on the payroll to receive a salary but who do not currently practice in health facilities
32 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6169662/
33 https://ghrp.biomedcentral.com/articles/10.1186/s41256-019-0094-2
34 http://documents.banquemondiale.org/curated/fr/854501572374865313/text/Disclosable-Version-of-the-ISR-Health-System-Strengthening-for-Better-Maternal-and-Child-Health-Results-Project-PDSS-P147555-Sequence-No-09.txt
35 https://www.worldbank.org/en/news/press-release/2014/12/18/wb-drc-strengthen-health-systems-improve-women-childrens-health-prepare-potential-ebola-outbreaks
36 https://www.msh.org/resources/performance-based-financing-improves-health-facility-performance-and-patient-care-in-drc
37 https://link.springer.com/article/10.1186/s41256-019-0094-2

Comparative analysis		
	Cameroon	**DRC**
Context	• Middle-income country • Politically stable, strong health sector governance • GDP per capita: US$3 785 (2018) • Gini index: 46.6 (2014)	• Low-income country • Fragile setting with protracted conflict • Weak governance system, policy vacuum filled by NGOs and IGOs • GDP per capita: US$932 (2018) • Gini index: 42.1 (2012)
Health system & outcomes[38]	• Per capita health spending: US$65.12 (2016) • Maternal mortality: 529 per 100 000 live births (2017) • Under-5 mortality: 76 per 1 000 live births (2018)	• Per capita health spending: US$20.6 (2016) • Maternal mortality: 473 per 100 000 live births (2017) • Under-5 mortality: 88 per 1 000 live births (2018)
Implementer	• Ministry of Health, initially supported by CORDAID, World Bank and other NGOs • Has successfully been transferred into local ownership and control	• Ministry of Health, entirely supported by coalition of partners led by World Bank, including GFF, USAID, UNFPA, UNICEF, Global Fund, Gavi Vaccine Alliance • Remains a donor-funded, donor-led initiative, with semi-autonomous purchasing agencies (EUPs) remaining parallel structures[39]
Scope	• Targets underserved populations in 4 regions • Focus on maternal health services	• Aims to reach 30% of the population • Focus on overall health system strengthening
Purpose	• To reduce facility utilisation and maternal mortality disparities in the country • To improve accountability and management of public resources	• To inject funding into an extremely underfunded system • To improve the quality and the accessibility and coverage of health services
Evaluation	• The project was effective in bringing payments and funding at the provider level and led to significant increases in coverage and improvements in structural quality of care • It also led to a decrease in out-of-pocket payments • The positive results can be attributed entirely to the increase in resources rather than the PBF component specifically, which showed no significant impact on the outcomes[40]	• Has succeeded in mobilising additional resources from donors interested in funding service delivery through this mechanism, and in providing basic supplies and equipment to the project facilities[41] • The PBF component has not been shown to have any specific positive impact; in fact, an initiative to increase health-worker salaries and increase regularity and efficiency of payments achieved better outcomes[42]
Challenges	• Administrative challenges • Limited funds for low-performing facilities hindered capacity to promote substantial infrastructural changes • Demand side barriers to service uptake persisted, e.g. geographical (distance from the facility), direct costs (fees) and indirect costs (transport), and cultural barriers to health-seeking behaviour (preference for traditional birth attendants over hospitals)	• Very weak regulatory capacity of the state at all levels • The government rarely exercises the oversight role accorded to itself in the PBF contracts • Accountability mechanisms are generally very weak or non-existent • Weak monitoring systems reduce ability to conduct verification prior to payments • Undertrained, overworked staff had source of income from user fees reduced by PBF[43]

38 https://data.worldbank.org/indicator/SH.XPD.CHEX.PC.CD?locations=ZG
39 https://link.springer.com/article/10.1186/s41256-019-0094-2
40 http://documents.worldbank.org/curated/en/756781499432127674/pdf/117301-WP-P126389-PUBLIC-Cameroon.pdf
41 https://ghrp.biomedcentral.com/articles/10.1186/s41256-019-0094-2
42 https://gh.bmj.com/content/3/5/e000958
43 https://www.ncbi.nlm.nih.gov/pubmed/23325585/

5 Discussion prompts

Has your country considered and/or established PBF as a strategic purchasing mechanism for health? If so, what has your experience been?

PBF is often intended to target specific elements which present a particular challenge to the health system. For example, in the DRC, PBF is intended to overcome the weak governance and administration of the health system and to improve service coverage in rural areas, while in Cameroon, PBF was introduced to improve quality of care and equity to overcome the health-seeking bottleneck in maternal and child-health outcomes. What are the persistent challenges in your own health system you think might benefit from an element of PBF?

Successful PBF requires robust health recording, reporting and verification systems, and would require additional resources in administration and implementation. It would also require strong referral systems which can track patients at community level to verify services and outcomes. Does the health system in your country have the capacity to successfully implement and oversee a PBF project? If so, on what scale?

Given that the evaluation of both PBF projects described here, along with other PBF evaluations and studies, continue to show mixed findings on the impact of PBF, how would you advise your government to approach such a project if/when an interested donor proposes one?

What are the alternative strategic purchasing approaches you might consider for addressing the problem identified in Question 1 above?

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