

PERFORMANCE BASED FINANCING CAN HELP TO INCREASE COVERAGE IN REMOTE AREAS

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Introduction

There is mounting evidence that Performance Based Financing (PBF) can improve utilization and quality of health care services. In a PBF system, the way health providers are paid is not entirely input-based, but at least in part made dependent on their output (performance based). The system is increasingly embraced by international agencies and donors, including Usaid and the World Bank. We argue that universal coverage of health insurance will not, by itself, automatically improve utilization and quality of services if not linked to a method of payment to health providers that encourages performance. PBF is a method of payment that stimulates health providers to deliver more and better services. It can be applied in conjunction with health insurance. We describe the first results of a PBF project, implemented by the Dutch NGO CORDAID, and its Indonesian partner PT. Bahana, in a remote area on the island of Flores in Indonesia.

Health financing

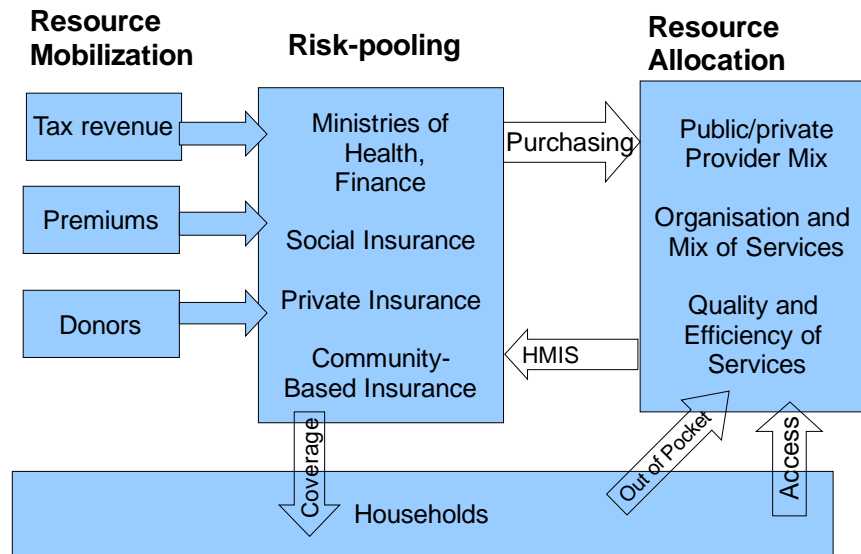
Despite positive efforts of the Indonesian Government to increase resources and health insurance coverage - notably through the insurance fund for the poor (Jamkesmas, *Jaminan Kesehatan Masyarakat*) that guarantees free health care for poor people – health outputs remain low both in terms of quantity and quality, Governments try to increase the utilization and quality of health services by removing economic, physical (distance), and socio-cultural barriers. One of the most significant barriers is the cost involved for the user, especially for poor people. Hence, it is understandable that Governments have put a lot of emphasis on setting up health financing systems that subsidize the poor. Nevertheless, even when there is universal coverage of health insurance, there is no guarantee that utilization is adequate. This is especially true for non-curative services, such as immunisation, and antenatal care, for which the users often don't perceive a direct need, These require a much more active role of the health provider for achieving high coverage. Universal coverage of health insurance will also not automatically lead to better quality of services. A key factor influencing the utilization and quality of services is the way the health providers are paid. So, besides mobilizing enough resources and health insurance policies to reach equity among users (risk pooling), the method of resource allocation (to pay providers) is very determinant for the ultimate results.

A health financing system performs three primary functions: 1) *resource mobilization*, ; 2) *risk pooling*; and 3) *resource allocation* (Figure 1). Universal coverage of health insurance can perform the first two functions more effectively, but will still not lead to improved health care (access and quality) if resources are poorly allocated. PBF is one of several ways of resource allocation. PBF distinguishes itself because it provides incentives to health providers to make an effort to reach extra coverage and higher quality.

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Figure 1. The three functions of a health finance system



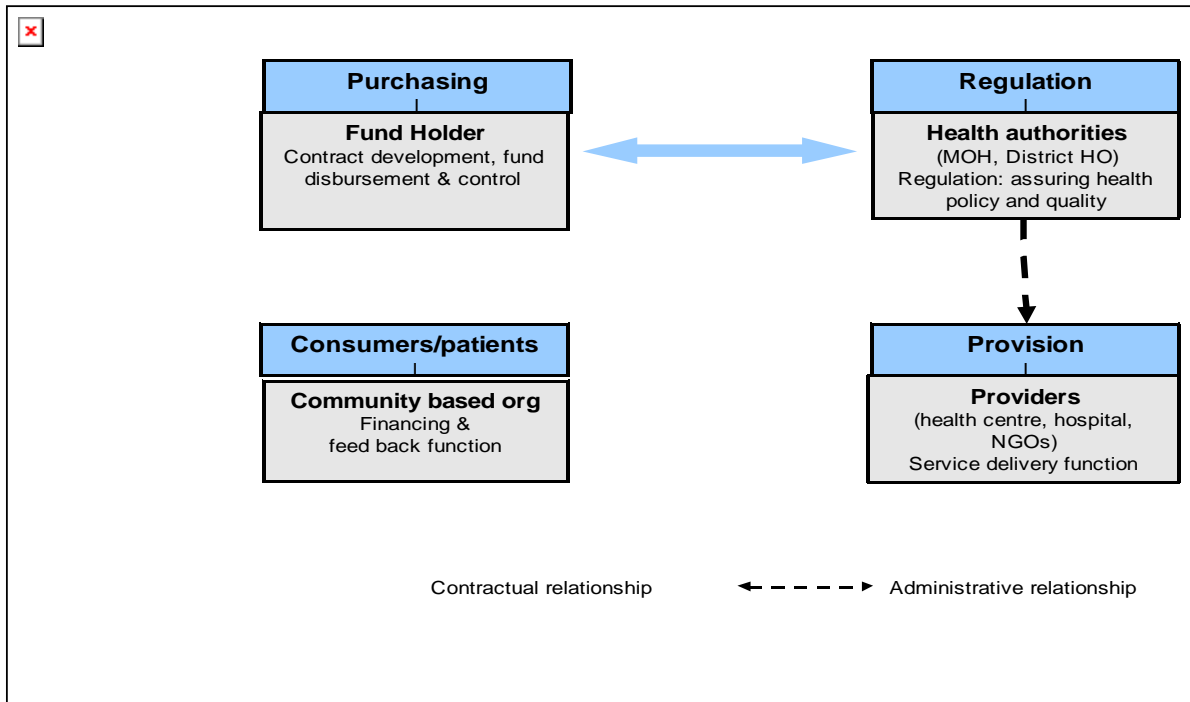
Adapted from: World Bank Institute, Basics of Health Economic, 2008

Basic principles of PBF

Performance Based Financing (PBF) is defined as “a cash payment or non-monetary 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. Payment is conditional on measurable actions being undertaken”. (www.rbfhealth.org).

PBF is a payment system with a clear separation of functions between:

1. *Regulation.*
District and provincial health authorities will be responsible for assuring quality, enforcing standard procedures based on national health policy and for licensing private care providers. Other roles are linked to human resources schooling and management of the different vertical programs.
2. *Fund disbursement.*
This will be done through an autonomous fund holder organization. They have the responsibility for the distribution of funds from public government and aid agency sources as well as potentially from health insurance premiums. Its executives are professionals who are recruited competitively and have no stakes in government or provider interests.
3. *Provision of Health Services.*
Health service providers will deliver health care services (curative and preventive) in an autonomous manner and their status may be public, religious or private-for-profit.
4. *Strengthening the consumer voice.*
Increase the consumer voice by contracting in the catchment area of each health centre local NGOs to conduct patient feed back and satisfaction surveys.



In many countries, including Indonesia, the public health sector performs at least three functions (consumer voice is given no or very little attention). The ministry of health (MOH) owns health facilities (provider), gives them a budget for their services (purchaser) and regulates to a fair degree how that budget needs to be spent. Even in “decentralised” systems, the supply of inputs such as drugs, equipment, human resources and salaries are planned “top down”, sometimes causing the wrong amount in the wrong place. Individual health facility managers have little autonomy in deciding how to allocate resources. Income from services has to flow back to the local Government, discouraging entrepreneurship by the local health facility manager. These factors provide no incentive to health facility managers and staff -who behave like normal economic rational people- to seek extra production of output. Rather, it induces lack of ownership, absenteeism and inefficiency.

A basic principle of the PBF system is the separation of the function of purchaser and provider (“purchaser-provider split”) using contracts that define payments for each unit of services delivered. There must be a functioning monitoring system in place for the independent verification of results. If payment is (at least in part) dependent on the number of services and their quality (performance), health managers will be encouraged to attract more patients and give them a good service. This system will lead to more efficiency in the allocation of resources, because there is an incentive to maximize output with the least possible consumption of inputs. It requires another principle: the health provider is given autonomy on deciding how to use revenue from budget allocation and user fees.

PBF and Health Insurance

De facto, PBF can be seen simply as a method of payment: payment that is based on performance. It refers to the last step of the health financing system: how to allocate resources. A health insurance fund, that mobilizes resources from tax revenue and/or premium paying clients, and pools their risk, can apply this method of payment.

Experience with PBF in Flores Indonesia

CORDAID, a Dutch NGO, started PBF in 2009 with its Indonesian partner, PT Bahana, in the remote districts Ngada and Nagekeo on the island of Flores in eastern Indonesia. These two districts were selected after visits to several districts and in close consultation with the provincial health office. Criteria for selecting these districts included the absence of other donor assistance, high poverty indicators, low health status of the population and poor condition of health care providers. A total of 15 performance indicators for health facilities were selected carefully in a consultative process with provincial, district- and local health authorities. For the district hospital a set of 11 indicators were selected (table 1). CORDAID-Bahana set up an independent fundholder office that conducted extensive training of health personnel of all health facilities (HF) and the district health offices.

Table 1. Quantity Performance Indicators for health facilities and the district hospital

	Health facilities	Amount of subsidy (Rp.)	District Hospital	Amount of subsidy (Rp.)
1	New consultations	2,000	In-patient days	1,000/day
2	In-patient days (max 6)	1,400	Feedback to <i>Puskesmas</i> following referral	3,000
3	Referrals (general including delivery) to hospital	8,000	Major surgical procedure (excluding caesarian)	100,000
4	Referrals (tubectomy and vasectomy) to hospital	8,000	Minor surgical procedure	5,000
5	Complete immunisation	10,000	Tubectomy and vasectomy	100,000
6	New TB case findings	40,000	Delivery with complications (incl caesarian)	40,000
7	Confirmed TB cases cured	75,000	Delivery with complications (excl caesarian)	75,000
8	Old and new family planning visits	10,000	Curretage	50,000
9	Insertions of IUD or implant	25,000	Blood bags stored (transfusion)	5,000
10	Complete (4) prenatal visits	8,000	Treatment of low birth weight	30,000
11	Pregnant women immunisation (TT2)	4,000	Treatment of new born with complications	30,000
12	Delivery in appropriate Health Facility (<i>Puskesmas</i>)	20,000		
13	Delivery in less than appropriate HF (<i>Pustus, Polindes</i>)	10,000		
14	Complete neonatal visits (KN2)	6,000		
15	Detection and management of sexually transmitted diseases	4,000		

For quality a scoring list on 106 items was applied covering different quality aspects of a HF: General indicators (6 items), hygiene and sanitation (6), regular consultation and emergency service (18), delivery care (19), family planning care (9), immunization (9), antenatal care (5), laboratory (6), essential drug management (5), minimum stock for 15 essential drugs (15), in-patient care if applicable (8). The quality survey is conducted every three months.

Beginning November 2009, health facilities entered gradually into formal contractual agreements with the fundholder for which they present a three-months business plan. All health facilities including the private providers were under contract by May 2010. Subsidy payments for quantity indicators are done monthly after a verification process that includes two steps. Verificators employed by the fundholder visit each health centre to verify their records and take a sample of patient records. Verificators from a community-based organization that has a contract with the fundholder will then visit these patients at their households to verify whether treatment actually took place. For the quality subsidy each health facility is visited each quarter by a trained team. A subsidy is granted only for scores above 50% as follows: Quality Bonus for 3 months=Quality Score X (Quantity subsidy of 3 months) X 10 %

Access or quantity of services

Figure 3. Subsidy to all Health Facilities
Nov2009-Aug2010 (Rp x million)

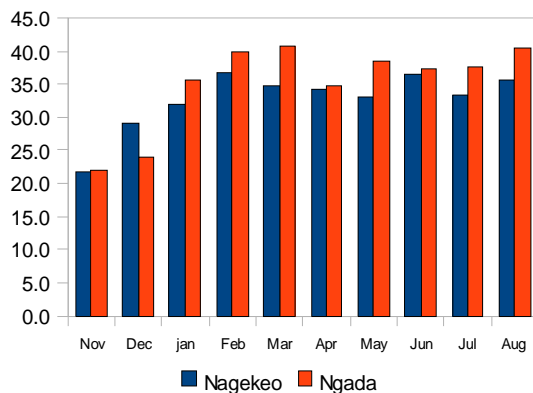


Figure 3 shows for both districts an increase in the total amount of subsidy since the start of the project in November 2009, which is partly due to the increase in number of participating health facilities over time. In Ngada, 8 HF out of 14 participated right from November and 5 joined as of January 2010 (one small private HF only started to participate in July 2010). In Nagekeo district subsidy payments started to 5 out of 12 HF at the start in November 2009, reaching the number of 10 by January. The decline in subsidy in April is due to a change in the subsidy payment. The first months there were many incomplete patient records and health facilities were instructed to improve

this. As of April patient records that were incomplete and did not have clear addresses were no longer counted for subsidy payment. Without complete information of the patients, services received by the patients can not be properly verified by the community verification system (it starts with finding the patient at the household and verifying the validity of the information supplied by the HF). Secondly, double countings were eliminated, A patient could be counted for one indicator only. For instance, when recorded as completely immunized or antenatal care, the patient would no longer be also counted for outpatient visit.

Figure 4. Subsidy to 13 HF that participated
Nov2009 -Aug2010 (Rp x million)

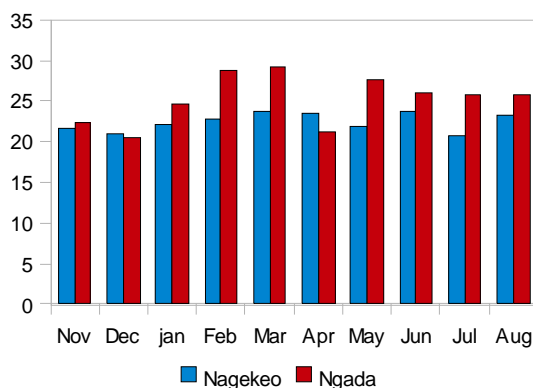
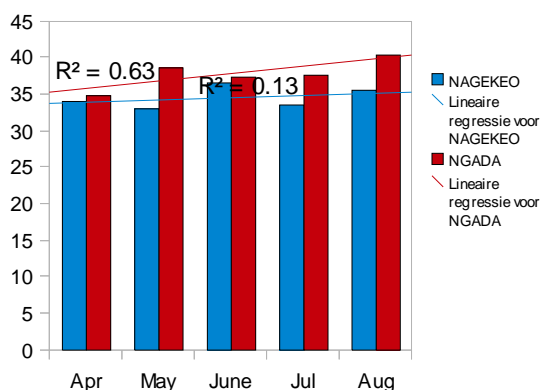


Figure 4 shows the amount of subsidy only for those 13 health facilities that participated during the whole period of 10 months (5 HF for Nagekeo, 8 HF for Ngada). Both districts show the same trend of increasing subsidies, that is increasing number of patients, during the first 5 months. Also here, the reduction in subsidy that happened in April due to the change in eligibility for subsidy payment can be observed.

Figure 5 shows the subsidy payments since the adjustments in counting in April 2010 for all 12 HF in Nagekeo and 14 HF in Ngada. Both districts show a positive trend. The trend in Ngada ($R^2=0.63$) is stronger than in Nagekeo.

Although it is too early to draw any firm conclusions, these results suggest that the number of patients (access) undergoing medical services increased in these two remote districts.

**Figure 5 Subsidy since adjustment
Apr-Aug 2010 (Rp x million)**



Subsidy per indicator

Table 2 depicts a comparison between the month of April and August 2010 of the number of patients (utilization) in each district for the 15 performance indicators. During these months the same adjusted subsidy counting system applies.

There is some variation between the two districts. For 4 indicators change is positive in one district but negative in the other. However, in both districts the majority of indicators show positive change (marked green). In the 5 months between April and August 11 indicators in Nagekeo and 9 in Ngada show increased utilization of services.

Table 2. Access for 15 performance indicators in Nov-09 and July -10

	NAGEKEO (12 facilities)			NGADA (14HF)		
	Apr	Aug	%change	Apr	Aug	%change
New out-patient	8.015	9.195	15	6.940	7.804	12
In-patient days	1.000	1.076	8	340	287	-16
Referral to hospital (general)	159	94	-41	243	353	45
Referral vasc and tubectomy	3	4	33	10	15	50
Compl immunization	168	187	11	182	201	10
New TB case finding	8	10	25	4	13	225
Confirmed TB cured	3	5	67	1	4	300
Family Planning	631	668	6	1.052	1.323	26
FP IUD and implant	101	26	-74	73	39	-47
Prenatal control 4x	59	85	44	89	65	-27
TT2 pregnant women	134	140	4	132	162	23
Delivery in proper HF	74	100	35	44	66	50
Delivery in less proper HF	83	39	-53	63	58	-8
Neonatal control (2 visits)	141	163	16	150	143	-5
STI detection and treatment	0	0		225	215	-5

Quality

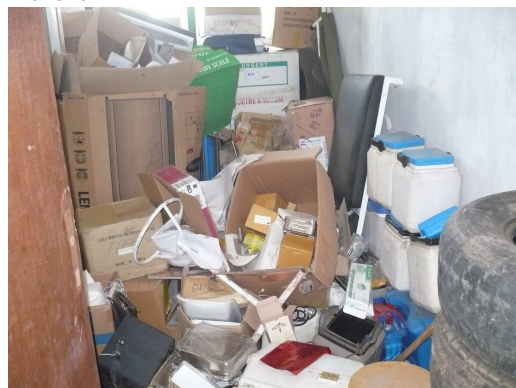
In June 2009, a baseline quality survey was conducted in the district hospital and a sample of 4 health facilities in the PBF districts (two in each district ³) and in one facility (Borong) in the capital of the neighbouring district of Manggarai Timur (control). The quality survey comprising a scoring list of 106 items with maximum score of 149 points (100%), was repeated in the same locations in June 2010. Table 3 demonstrates that the scores in all health facilities in the PBF group improved ranging from 4 percentage points to 30 percentage points. Average improvement was 18 percentage points compared to only 1 percentage point in the control district.

Table 3. Quality survey score at baseline and after one year.

Indicator	Max score	Project sites										Control site	
		Waepana		Koeloda		Boawae		Danga		Bajawa Hospital		Borong	
		2009	2010	2009	2010	2009	2010	2009	2010	2009	2010	2009	2010
General	6	3	6	2	4	3	6	5	5	1	3	3	3
Hygiene & Sanitation	13	2	7	0	3	3	11	2	5	10	3	3	2
Outpatient & Emergency	24	8	20	8	14	8	14	8	8	13	15	11	13
Delivery	24	14	21	8	20	16	21	17	16	21	21	16	14
Family Planning	20	13	16	11	17	11	15	11	15	10	12	11	12
Immunisation	11	9	11	5	10	5	8	3	7	3	4	2	3
ANC	8	1	3	1	2	1	5	4	5	4	7	1	3
Laboratory	7	3	5	3	3	6	6	7	7	7	6	3	3
Essential Drug Mngmnt	10	6	6	10	6	4	4	4	4	4	4	4	4
Drug Monitoring	15	9	12	5	4	6	8	6	9	6	13	8	7
Inpatient	11	0	10	0	0	4	5	5	5	11	11	7	6
Total	149	68	117	53	83	67	103	72	86	90	99	69	70
Percentage	100 %	49 %	79 %	38 %	60 %	45 %	69 %	48 %	58 %	68 %	72 %	46 %	47%
Percentage increase		30%		22%		24%		10%		4%		1%	
Average increase		18%										1%	

The PBF intervention led to discernible improvements in cleanliness in many health facilities.

Before



After



Before the start of the PBF project, none of the health facilities had even the minimum amenities for (medical) waste disposal (all waste was burned in a hole in the ground). Now some are building incinerators. Before the PBF project, malaria bednets were lacking in most facilities in this malaria endemic region. Now, facilities invest in bednets. In short, PBF motivated health facility managers to invest part of their resources in structural improvements that lead to improved quality. Also, a markable improvement took place in data recording and reporting. Particularly, services rendered by village health workers were not fully recorded and reported before PBF. Health facilities became aware that improper recordings will not be taken into account for subsidy payment by the PBF verifiers.

Management and supervision

Underlying the observed increase in quality is an increase in the management capacity of the district health office (DHO) and the health facility managers. The latter develop quarterly business plans as a requirement for entering in a contract agreement with the fundholder. During negotiations targets are set and managers plan how to allocate their resources more rationally related to output objectives. In this respect, it is observed that resources are more often allocated for outreach activities having a direct impact on increased access to health care. This is notably important for non-curative indicators such as immunization and antenatal care. The DHO has improved their supervisory task both in frequency and quality. Formerly supervision was rarely done and was conducted by one program holder, whereas now it is conducted in an integrated fashion by a team. Anecdotal evidence from health staff indicates that this contributes to their motivation and resolving some administrative issues at their HF.

Future challenges

For the future important challenges remain in order to sustain the promising results of PBF. Ownership and technical capacity of stakeholders needs further strengthening. PBF needs constant monitoring of the effects of payment on performance. For instance, payments should not lead to unnecessary provider induced supply (adverse effect). The number and type of performance indicators and the amount of subsidy may need to be adjusted depending on morbidity trends and achievements.

One of the principles of PBF is that the health facility manager is given more autonomy to make decision on resource allocation. This, in fact, is much in accordance with a worldwide observed trend to decentralise and devolve power from central level to the health facility level. Also in Indonesia this would fit the national policy. However, health facility managers who know best what is needed in their specific context ,are still reigned by centrally defined rules on budget, fees, staffing and drug procurement.

The availability of funding is most critical for the sustainability of any health financing system. De facto, PBF can be seen simply as a method of payment: payment that is based on performance. Hence, also without additional funding (for instance from an international NGO like CORDAID), the Government may allocate part of their existing budget on a performance basis rather than purely input-based. These payments can be entrusted to an independent fundholder to adhere to the principle of purchaser-provider split.