TECHNICAL REPORT

Results-based Financing for Health in Sindh: A desk-based feasibility review

October 2013

BREAKING NEW GROUND

in ThinkWell
@thinkwellglobal
www.ThinkWell.global

Acknowledgements:

ThinkWell would like to express our sincere gratitude to all individuals and organizations that contributed to the ideas presented in this report. We are especially grateful to JSI Research & Training Institute, Inc. for their active engagement throughout the process of developing this report, and to USAID for making this work possible.

Authors:

This report was prepared by Yogesh Rajkotia and Nancy Fitch for the USAID Maternal and Child Health Program.

Recommended Citation:

Rajkotia, Yogesh; Fitch, Nancy. *Results-based financing for Health in Sindh: A desk-based feasibility review*. October 2013. Institute for Collaborative Development.

This report was produced by ThinkWell, with funding from USAID Maternal and Child Health Program (Cooperative Agreement No. 391-A-13-00002) implemented by JSI Research & Training Institute, Inc.

ACRONYMS

ANC	Ante-Natal Care
BHU	Basic Health Unit
BMZ	German Federal Ministry
CCT	Conditional Cash Transfer
DHIS	District Health Information System
DHO	District Health Organization
DOH	Department of Health
DPT	Diptheria, Pertussis, Tetanus
EPHS	Essential Package of Health Services
HLSP	HLSP, Inc. Consulting Firm
HMIS	Health Management Information System
HR	Human Resources
HRH	Human Resources for Health
LHV	Lady Health Worker
LIC	Lower Income Country
M&E	Monitoring & Evaluation
MCH	Maternal & Child Health
MDG	Millennium Development Goals
MSDP	Minimum Service Delivery Package
MO	Medical Officer
MOH	Ministry of Health
NGO	Non-Governmental Organization
OPD	Out-patient Department
PBC	Performance Based Contracting
PBF	Performance Based Financing
PHC	Primary Health Care
PKR	Pakistan Rupee
PNC	Post-Natal Care
PPHI	People's Primary Health Care Initiative
PRSP	Punjab Rural Service Provider
RBB	Results-based Budgeting
RBF	Results Based Financing
RMCH	Reproductive Maternal Child Health
RSP	Rural Service Provider
SOP	Standard Operating Procedure
THE	Total Health Expenditure
TPE	Total Public Expenditure

TABLE OF CONTENTS

Acronyms **3**

I Executive Summary **5**

Sindh Province Health System Context 5

Opportunities 5

Performance-Based Financing and Performance-Based Contracting 6

Challenges and Constraints to successful PBF implementation 6

Recommendations 7

II Background: Current Health Systems Context in Sindh Province **7**

Current Pakistan Health Context 8

Recent History 8

Current Health Situation 8

People's Primary Health Care Initiative 10

2012 Sindh Health Strategy 11

III Review of International Literature **12**

Contracting Out to NGOs 13

Contracting Out to Private Sector Medicine 14

Contracting In (PBF) 16

Evidence of PBF Impact 16

How PBF Works 17

IV Literature Review to Assess PBF Feasibility in Sindh Province **22**

Regulator Functions 22

Purchaser Functions 24

Provider Functions 25

Other Feasibility Issues 25

V Conclusion **26**

Annex 1: References **28**

Annex 2: Proposed Objectives and Tasks for a Field Visit: **31**

Results-based Financing for Health in Sindh: A desk-based feasibility review

October 2013

I EXECUTIVE SUMMARY

SINDH PROVINCE HEALTH SYSTEM CONTEXT

Over the last two decades, improvement in Pakistan population health has been very slow (Bhutta 2013). Pakistan will not meet its MDGs, and its health indicators are significantly lower than those of neighboring countries (Nishtar 2013).

Sindh Province has an underfunded and underperforming public health system. The population relies heavily on a private health sector, financed by out-of-pocket payments. There are significant inequities between rural and urban populations, between upper and lower income quintiles, and between males and females.

Less than 4% of the Pakistan general government expenditure is on health, which is less than half the mean amounts spent by comparison countries (Nishtar 2013). Twenty-two percent (22%) of the population has health costs covered through employers or social safety nets. The remaining 78% pay out-of-pocket for health care, mainly using the private sector (70%) for services (Nishtar 2013). Seventy percent (70%) of economic shocks to poor households are from catastrophic health expenditures (Nishtar 2013).

The public health sector faces serious governance challenges. These challenges include rampant informal fees, dual practice, and practitioner absenteeism (Transparency International 2011). Public facilities routinely lack essential drugs, staff, supplies, and basic equipment; their providers are unmotivated and facilities and equipment are poorly maintained (Martinez 2011). Patient satisfaction and confidence is low in the public sector, widely seen as corrupt.

The private health sector is unregulated and medical malpractice is a frequent concern in the media (Shiwani 2011). The kind of care offered by the private health system ranges from unlicensed quacks and counterfeit drugs to internationally accredited hospitals and strong philanthropy.

OPPORTUNITIES

Two recent initiatives have increased the opportunity for health financing reform in Sindh Province:

Engaged Sindh Province DOH leadership and reform: Following devolution, the Sindh DOH developed its first health strategy that proposes a range of health policy and financing interventions and establish a Health Sector Reform Unit. Proposed strategies include incentives for improved performance in both the public and private sectors and regulation of the private sector.

Recent success with health reform through contracting: Starting in 2006, the President's office contracted-out management of rural health facilities to a non-state entity, Rural Service Provider (RSP). Under RSP management, many aspects of service delivery improved. Both the volume of services and patient satisfaction improved; furthermore, RSP reduced informal payments and dual practice by increasing physician salaries and increasing their responsibilities. The Sindh strategy anticipates maintaining these improvements through more active performance management of service delivery in well-performing districts and competitively contracting-out in disadvantaged districts.

Given Sindh Province's context and recent events, there appears to be a significant window of opportunity to support implementation of performance-based financing (PBF) and contracting.

PERFORMANCE-BASED FINANCING AND PERFORMANCE-BASED CONTRACTING

Performance-based financing (PBF) and performance-based contracting (PBC) have been implemented in diverse contexts globally with increasingly robust evidence demonstrating improved quality and quantity of health services. International experience shows that well-implemented PBF, including PBC, often increases provider productivity, stimulates entrepreneurism, increases accountability and transparency and improves overall facility performance.

In PBF, relationships among existing entities are "re-organized". Under the oversight of the DOH, an independent "purchaser" would pay performance incentives to "providers" based upon a robust verification that defined services were provided. Facilities have autonomy to use these funds to improve their performance, distributing some funds as performance incentives to health workers and using the rest to improve facility performance.

If properly implemented, PBF imposes a regular and robust process to transparently verify health service data. If performance cannot be reliably verified, PBF payments should not be made. Rigorous enforcement is critical. Thus, PBF initiates a significant culture change where government and providers are rewarded and held accountable for service delivery performance.

CHALLENGES AND CONSTRAINTS TO SUCCESSFUL PBF IMPLEMENTATION

- The public health sector in Pakistan is widely perceived as corrupt with highly pervasive patterns of public health worker absenteeism, informal charges, and dual practice.
- Under PBF, "gaming" looks different than usual. Gaming occurs by falsifying data and/or the verification process. Thus, the verification process in Sindh Province must be particularly robust to avoid "gaming". Independently spot checking of primary source patient records and actual patients should be planned.

- Under PBF, health provider teams will receive incentives proportionate to their performance, including non-performers (e.g. non-performers should not receive incentives). Gaming will need to be considered in developing staff incentive distributions formulas. Alternatively, redundant staff should be reduced.
- Effective regulation of the private sector is sorely needed but will be very difficult to accomplish with current funding and the government structure available. Engaging the private sector with incentives for improvement is recommended.
- Reform activities, in health as well as other sectors, frequently face resistance from those who fear losses (financial or otherwise) from changes to the existing system. With PBF, health system performance measurably improves, benefitting health system stakeholders and usually attracting more investment. A major challenge in implementing any health reform is "selling" the reform, convincing stakeholders that they will benefit from the reforms.

RECOMMENDATIONS

This review suggests that, based on the literature alone, PBF implementation in Sindh Province can be successfully implemented. Therefore, the recommendation of this desk review is to conduct a deeper analysis of the capacities, constraints, politics, and context to determine 1) whether PBF is truly feasible; 2) the various design options that have the greatest likelihood for success. To that end, we recommend undertaking a participative planning process with full collaboration of all stakeholders. This process should also incorporate:

- Verification process assessment. Consideration should focus on careful design of a pilot to credibly and robustly verify actual service delivery performance that will determine incentive payments. A robust and credible verification process is overseen by an "independent purchaser" and looks at both primary patient and aggregate service delivery records, as well as independently spot-checks of actual patients.
- Organizational structure assessment. Separation of the "regulator," "purchaser," and "provider" functions must be carefully considered.
- Payment determination: Financial incentives must be large enough in the aggregate to make up for lost income from informal payments and dual practice.
- Assessment on impact on overall public workforce. Longer term considerations of a more cost-effective health workforce are needed.

II BACKGROUND: CURRENT HEALTH SYSTEMS CONTEXT IN SINDH PROVINCE

In *Choked Pipes*, Dr. Sania Nishtar describes how the triad of an underfunded public health system, an unregulated private health sector, and lack of government transparency has perpetuated the poor health of the Pakistani population. Balancing private sector incentives and public health priorities, as Nishtar calls "Mixed Health Sector Syndrome," have challenged many governments. This review looks closely at the use of performance-based contracts and incentives as a way to motivate participants in both public and private health systems to increase access, quality, and efficiency in delivery of priority health services.

CURRENT PAKISTAN HEALTH CONTEXT

Since the devolution of central ministries in 2011, the Sindh Province DOH has taken on responsibility for stewardship of the provincial health system. The DOH is actively focusing on addressing the population's poor health status. Pakistan is not on track to meet the MDGs. The population has poorer life expectancy, child mortality, total fertility rate, and skilled birth attendance than other countries in the region. There is significant inequity in access to health care. The poor and rural populations have especially significant financial and geographic access barriers, evidenced by higher rural child mortality rates, lower rural immunization rates, and lower skilled birth attendance rates. Girls have 57% higher mortality rates (Bhutta 2013) than boys, and there is significant excess mortality in the lowest quintiles compared to the top income quintiles.

RECENT HISTORY

Significant structural changes recently occurred in the public health system. These are:

- In 2011, devolution of ministerial functions abruptly increased the responsibilities of the Provincial DOH to both "steward" and to manage the health care system. The Sindh DOH subsequently committed to internal reform. There has been the creation of the high level Health Sector Reform Unit and the development of a Sindh Province Health Strategy, demonstrating important political will.
- In 2006, the President's office, to meet the MDGs and to address the poor performance of the public health sector, contracted-out the management of over 1,100 rural health centers to a multi-sectoral NGO, the Rural Support Program. This contracting-out was broadly recognized as having positive results (Martinez 2011, Ali, Loevinsohn 2008). Thus, in the recent Health Strategy, the DOH prioritized increasing accountability and stewardship via contracting within the public and private health systems.

Sindh's current health situation results from poverty and other social challenges as well as public and private health system inefficiencies. Conscious of these health system problems, in its recent (2012) health strategy, the government identified additional public, philanthropic and external resources to make important and impactful financial and governance health system reforms (Technical Resources Facility). Particularly in rural areas where the formal private sector is limited, the public health sector is recognized as providing inefficient and poor quality care.

CURRENT HEALTH SITUATION

Sindh Province has a population of approximately 43 million, with nearly twenty million living in Karachi. There are significant urban-rural health inequities. Overall, women have a total fertility rate of 4.5, a contraceptive prevalence rate of 26%, and a literacy rate of only 12%. There is an inverse sex ratio of 114, showing discrimination against women. While the infant mortality rate has been stable over the last decade, the neonatal mortality rate has actually increased from 44 to 53. Institutional deliveries have declined in the last decade (Zaida 2011).

Most public and private health care (66%) is funded from out-of-pocket payments at the point of service (HLSP 2012). The private sector, depending exclusively on out-of-pocket payments, focuses on maximizing revenue with curative care rather than providing cost-effective care to meet provincial health priorities.

In rural areas, maternal and child health outcomes are significantly worse than in urban areas, due to restricted access to and poor quality of public health services. Geographic/transportation barriers are significant due to remoteness. Roads and transportation are poor. Emergency referrals are difficult due to distance, lack of functioning ambulances, and cost. Financial barriers are significant due to transportation costs and informal fees. Access is reduced because of gender cultural barriers with significant shortages of women providers and physical safety threats to women who travel (HLSP 2012). Quality of care is poor due to chronic stock-outs of essential drugs, poor maintenance of equipment, and lack or supplies, as well as provider absenteeism due to dual practice and poor motivation of remaining workers (Zaida 2011).

In 2011, a health facility assessment of Sindh public facilities was conducted and revealed the following (Lahore 2012):

- Major lack of maternal, newborn child health professional staff
- Significant shortages in equipment, drugs, and supplies. No facility was completely stocked
- Review of monthly performance meetings showed significant lack of work coordination
- Feedback was not usually provided during supervisory meetings
- Maternal and infant deaths were not reviewed.

There is little structured accountability by the government and by providers to the population for poor service quality. There is little public involvement or participation in health sector governance or service delivery (Responsiveness… 2010).

Urban areas have more private providers, better access, and have better health statistics, but show a transition to non-communicable diseases. These areas have much higher concentrations of private and NGO providers and curative care but also have higher crime and urban crowding.

The private sector and private resources dominate the health system. The large private sector is essentially unregulated with quality tertiary care, unsafe unlicensed health practitioners, and hybrids thereof (HLSP 2012). Large out-of-pocket expenditures are the primary source of health funding and are barrier to care, causing financial hardship for most of the population. The private health service delivery sector, in urban areas, is very active and diverse (including high quality NGOs and charitable entities), but is essentially unregistered and unregulated. Counterfeit drugs flood the markets with nearly 15,000 unregulated private pharmacies (Zaida 2013). The private sector focuses predominantly on more profitable curative care, though still providing the majority of primary care received by the population.

Health sector governance is weak. Historically, the province DOH and districts have delivered services through a uniform, hierarchical pyramid of health services, based on historical line-item budgets, staffed by employees of the Public Service Commission, all managed centrally. Informal payments to physicians and providers (Transparency International 2006, Nishtar 2013, Lewis 2007) and dual practice (HLSP 2012) are common. On any given day, an average of 30-40% of providers are absent from their public practice locations (Agboatwalla 2010). The health system is dominated by physicians without efficient use of nurses or other mid-level providers (Zaida 2011). The shortage of female providers limits access for women patients. Political patronage influences public service commission appointments, as evidenced by frequent transfers and appointments, even when positions are not budgeted (Zaida 2011). There are large numbers of non

professional workers. It is probable that there are informal revenue streams flowing from providers to higher system levels that perpetuate this organization of service delivery (Lewis 2007).

PEOPLE'S PRIMARY HEALTH CARE INITIATIVE

Contracting-out was successful in improving health service delivery in Pakistan. Because of poor performance of the public health sector particularly on MCH indicators, in an effort to achieve the MDGs, the President launched People's Primary Health Care Initiative (PPHI) in 2007. The management of approximately 60% of basic health units was contracted (non-competitively) to Rural Service Provider (RSP) (a multi-sectoral agency, quasi-autonomous entity). The Third Party Evaluation of PPHI states:

> *"PPHI was launched to overcome the failure of many front-line care facilities in Pakistan to deliver PHC services through health facilities that were understaffed, poorly resourced and/or ineffectively managed. It is quite clear that in the districts where PPHI has been operating for the longest time…PPHI has achieved significant increases in staffing, availability of drugs and equipment and physical condition of facilities, including rehabilitation and repossession of hitherto dysfunctional basic health units."*

Technical Resources Facility 2010 stated:

> *"The results were striking; utilization rates in the PRSP (Punjab Rural Service Provider) run facilities increased by over 200% in a matter of a few months. The simple explanation for the success is that absenteeism was not tolerated by the PRSP management and that patients responded to the availability of a doctor and medications in the primary health care facilities…The most remarkable aspect was that the utilization increased at half the cost of the old system."*

There were many improvements in service delivery. These improvements included: increases in OPD, ANC and PNC visits, increases in safe attended deliveries, availability of diagnostic tests, better referral record keeping, telephone communication and transport arrangements, improved consumer satisfaction with the quality of care and drug availability (Martinez 2011). Service data, such as outpatient attendance, ANC visits, family planning visits, DTP and measles vaccinations, school and community sessions, lab and diagnostics tests, successful referrals, were higher at PPHI facilities than at non-PPHI facilities. Patient perceptions of quality were higher at PPHI facilities.

There was effective targeting of the poor. Users of PPHI facilities were from lower income groups than at non-PPHI facilities (Martinez pp. 56, 90). PPHI facilities established effective community outreach via community support groups and dedicated staff, which may have helped reach the poor.

The third party evaluators noted that even with these improvements, **overall uptake of services based on population norms was still low** (Martinez pp.61-62).

RSP exerted greater management autonomy and flexibility which directly contributed to improved services. For example:

- RSP advocated diligently to improve the salaries and working conditions of LHVs and

Rahimyar Khan District in Punjab Province

Under the PPHI, the RSP increased physician salaries from Rs 12,000 to 30,000, expanded physician responsibilities from 1 to 3 BHUs and reduced the number of physicians by 5 (physicians who were absent from their duties or wanted to transfer). Private practice and informal fees were strictly forbidden for physicians, medical officers and paramedics (See *Ali et al* and *Third Party Eval*).

medical officers, within the Public Service Commission by having MOs serve a cluster of districts and by adding hardship allowances. With these improved working terms and conditions, RSP significantly increased the numbers of contracted women providers and doctors compared to those in government employment. The increased numbers of providers and their increased productivity directly contributed to the improved services.
- While improving the terms and conditions for physicians, RSP strictly curtailed dual practice, informal practice and absenteeism.
- RSP changed the organization of service delivery, including staffing, by adopting a "cluster" arrangement of facilities.
- RSP significantly increased availability of essential drugs compared to non-PPHI facilities through direct procurement. RSP significantly improved the physical infrastructure, equipment and communication capacity of supported facilities. (Martinez 2011)

The politics of contracting-out must be carefully considered. Variable tension between provincial and district health offices and RSP was noted. RSP had been imposed by the President's office in part because of poor performance by provincial and district health offices. The RSP was opposed by the provincial health system because it bypassed and undermined the creditability of the public health system (Technical Resources Facility 2010). It had been assumed that management would return to DOH once their capacity was improved, but there was no program to improve DOH capacity. Thus RSP managed these units separately and often in parallel to the public system.

Key lessons were articulated: The *Third Party Evaluation* made the following recommendations regarding the PPHI (italics indicate direct quotes; non-italicized recommendations are summaries from the TPE):

a. *In PPHI districts, the DDOH should be assisted to change its role to one of contractor (purchaser) focusing on performance monitoring of service providers. DDOH staff…should be rewarded for their success…for performance in public health indicators, thus encouraging them to get good results from service providers…*

b. *In PPHI districts, provincial and district administrations should consider the merits of allowing PPHI to take responsibility for the management of RHCs…to enhance the management of referrals and thus deliver a more integrated service package…*

c. PPHI should develop competent, trained service managers with both management and public health skills.

d. The low level of public financing of PHC is of great concern. External donors might be found to support PHC where there is a stronger performance orientation of the PHC network.

2012 SINDH HEALTH STRATEGY

The Sindh DOH embraced taking on a stewardship role: The first ever Sindh Health Strategy, and the establishment of the Health Sector Reform Unit, recognizes the importance of health sector stewardship and includes a wide range of financing interventions (Technical Resources Facility 2012). Key themes of the strategy are:

- Strengthening and expanding public district health systems to extend priority (maternal/child health, primary care) services to women, the rural and the poor, and

addressing non-communicable diseases for urban residents, and recommends increasing the non-salary operating budget by 50%
- Increasing accountability through stronger M&E systems, contracting, regulation and performance-based financing
- Engaging the private sector to achieve provincial health system objectives through both regulation and financing

The Strategy, while well-intentioned, has fragmented health financing approaches. Multiple, varied health financing reforms are proposed to target multiple small groups. For example, the DOH should:

- Competitively contract out "disadvantaged" rural districts to NGOs to provide a defined minimum packet on a performance-basis.
- Provide transport vouchers to needy women for RMCH services.
- Provide performance-based incentives for public sector staff for meeting minimum targets.
- Commission NGOs for capacity building of DHOs.
- Strengthen DHO financial management, including performance-based bonuses to top up operational budgets for meeting performance targets.
- Provide incentives for self-accreditation of private providers.
- Purchase EPHS and MDSP services from accredited private providers using performance-based contracting, subsidies, commodity vouchers, community insurance, health equity funds, and family health cards.
- Provide performance-based incentives to female health workers for MCH services in rural areas.
- Introduce health equity funds at public sector hospitals and accredited non-profit hospitals using zakat, bait-ul-mal, or other non-state funds.

Health financing reforms can be improved by a systematic approach. The Strategy emphasizes different approaches for rural and urban areas, for public and private sectors as well as targeted financing reforms for specified vulnerable groups. A fragmented approach increases administrative burdens and decreases opportunity for pooling and risk-sharing. Both public and private sectors will play key roles in service provision in both urban and rural areas. Financing reforms should be flexible enough to accommodate these different situations without losing efficiencies of scale or sacrificing common guiding principles.

III REVIEW OF INTERNATIONAL LITERATURE

Based on the Sindh Health Strategy recommendations and the recent experience with contracting-out, the following health financing reforms to improve access, efficiency and quality were reviewed in international literature:

- **Contracting-out (PBC):** management and/or service delivery of basic packages at public health facilities from the DOH to NGOs.
- **Contracting-out (PBC)** of public health services for the poor (ESDP, MSDP) from the DOH to private registered/accredited providers and facilities.
- **Contracting-in (PBF)** of service delivery from government to public facility or to district health authorities.

PBC and PBF represent two hybrid combinations of supply-side Results-Based Financing (Gerter 2013, see figure 2, p12) to be reviewed in this paper. Regulation and engagement with contracting-out of the private sector are also reviewed and discussed.

CONTRACTING OUT TO NGOS

Contracting-out (PBC) has generally been reviewed very positively in the literature. In a review of 16 different contracting-out studies, primary care service delivery and/or management of service delivery were "contracted-out" to NGOs after problems were noted within public service settings (Liu 2008). Usually, expanding access was the primary objective. Equity, quality and cost-efficiency were variably included as contracting-out objectives. Loevinsohn (2008) reported significant improvement in quality and utilization at equal or lower costs compared to baseline. These improvements were sustained up to 9 years and were delivered on a very large scale, to many millions of people (Liu 2008, Loevinsohn 2008, Cristia 2008). Other examples confirm significant improvements in the quantity and quality of care compared to the pre-existing problems (Mills 1998). Liu noted that "while…contracting-out has in many cases improved access to services, the effects on other performance dimensions such as equity, quality and efficiency are often unknown." Pakistan's Punjab PPHI experience is noted as a success by Loevinsohn (2008).

Figure 1: Improvements in service delivery in 5 PBC programs (Loevinsohn 2008)

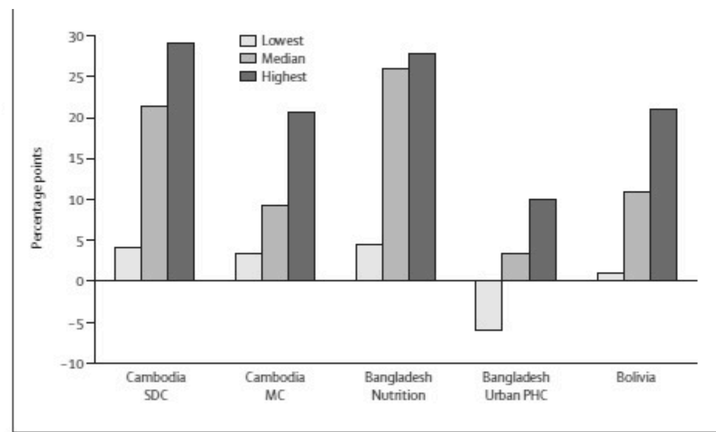


Figure 1: **Double differences (in percentage points) in coverage rates from studies with controlled before and after methodology**
SDC=service delivery contract, MC=management contract, PHC=primary health care.

The World Bank, developed a PBC Toolkit (Loevinsohn 2008) that lists various reasons for improved performance compared to public sector delivery:

- Greater focus on measurable results
- Greater flexibility of private sector to avoid "red tape" and political interference
- Greater managerial authority and accountability needed to address "absenteeism," kick-backs, and drug thefts
- Competition to improve performance
- Refocuses government on stewardship and oversight rather than service delivery

Governments and Departments of Health frequently raised concerns about contracting out, such as loss of public sector jobs and loss of their own power and authority as the private sector takes on these responsibilities. Often, governments perceive the suggestion to contract-out as an implication that they have performed poorly, rather than understanding the advantages that the private sector has. There may be concerns from doctors or other government health workers that they will lose their jobs or revenue if their dual practices are not allowed and salaried are not adjusted. Other concerns may be loss of revenue from dual practice or other corruption.

The contracted NGOs may have had advantages created by the contract itself, such as greater accountability for addressing specific underlying problems (for which contracting-out was proposed as a solution). A "publication bias" is also possible, in that only public systems with pre-existing problems were chosen for "contracting-out."

The following contracting-out lessons were recommended by both international literature and the Third Party Evaluation of PPHI:

- Significant capacity building of the public health system is needed in contract management to manage the NGO providing primary care services. There needs to be clear regulatory structure for contracting, i.e. procurement regulations supporting full and open competition, restrictions against sole source contracting, and oversight in contracting from government entities outside the DOH to prevent the appearance of conflicts of interest.
- There needs to be great clarification of specific management and service delivery responsibilities that are expected from the contracted organization. In particular, it is important to clarify reporting lines and employment contracts for health workers. In PPHI, only management was contracted out, resulting in tension over service delivery performance. When only management is contracted out, then managerial authority over health workers is reduced, as the authority of the contractor is reduced. If service delivery responsibilities and their budgets are also contracted out, contractors would be clearly responsible for service delivery.

In summary, **contracting-out of primary care services to NGOs has shown many benefits** when implemented that can correct poor access or other recognized problems of public health systems.

However, not all characteristics of good care (access, equity, quality and cost-efficiency) have been fully studied.

Regarding Sindh Province, only “competitive contracting-out of ‘disadvantaged’ district health services” was included in the Strategy without any significant budget. Thus, it does not appear to be a high priority.

CONTRACTING OUT TO PRIVATE SECTOR MEDICINE

Sindh Province has typical characteristics of an unregulated private health sector (Basu 2012), including:

- Excessive out-of-pocket payments, catastrophic expenditures, and financial barriers limiting access to priority services
- Focus on regressive and inefficient curative care and expensive tests and procedures, such as unnecessary antibiotic prescriptions, rather than on preventive services
- Proliferation of substandard and counterfeit drugs
- Quackery, poor/dangerous quality medical care by unqualified providers and pharmacies
- Lack of consumer recourse from dangerous practice

Contracting-out delivery of essential services to private sector providers is well-developed in high income and some middle-income countries but not in LICs. Literature review of effective private sector regulation notes the following challenges (Tangcharoensathier 2008, Smith A, World Health Assembly):

- Low income countries generally have low government effectiveness scores and do not effectively regulate the private health sector.
- Top-down command-and-control regulation of private health sector providers is difficult, requiring a large presence of technically strong regulators.

- Voluntary regulation, including accreditation, financial incentives and disincentives, and contracting, has been more effective than top-down regulation in ensuring quality of service in low income countries.

Review of the literature on **harnessing the private sector to meet public health needs in low income countries** has observed (Smith A 2001, Tangcharoensathier 2008, Kumaranayake 1998):

- The management burden of multiple contracts on individual providers is very large. Contracting with associations of providers, including franchises, is more manageable.
- Registering and accrediting multiple private providers requires dedicated and sophisticated programs difficult for LICs to support.
- Additional financing is needed to pay the private sector to provide "public services" with attendant budget concerns, such as "supplier-induced demand" and therefore a need to control costs.
- Private providers may not have any standardized reporting or information systems.

Pure 'regulation' of the private sector without incentives is rarely effective in low income countries. Registering, accrediting, and regulating the private sector can be a pre-requisite in the process of establishing performance contracts with the contract acting as a financial incentive. Thus, while contracting out to private providers is a longer, more complex process involving registration, accrediting, and encouraging franchising or establishing "cooperatives" of qualified providers, the key ingredients – incentives plus regulation – are appropriately combined in the Sindh health strategy. This will be a long-term activity.

> *"The capacity of governments to work productively with, regulate and oversee health care providers is to a large extent constrained by the way health care is financed. Countries that spend more through government or social insurance mechanisms generally achieve better and more equitable health results than those that rely more on out-of-pockets spending at the point of service (Smith A 2001)"*

As regards to Sindh Province and contracting out to the private sector as proposed in the health strategy:

- There is currently no effective regulatory system in Pakistan (Nishtar 2013)
- The Strategy and other Sindh health documents call for establishing systems of regulation and quality improvement of the private sector. These will take time and investment.
- Additional budget is needed to pay private providers to provide ESDP services, which is not included in the Sindh Health Strategy budget. There would be need to "ration" this financing by defining which patients groups are covered, which services are covered, and which providers are eligible. These "rationing" systems would need to be developed.

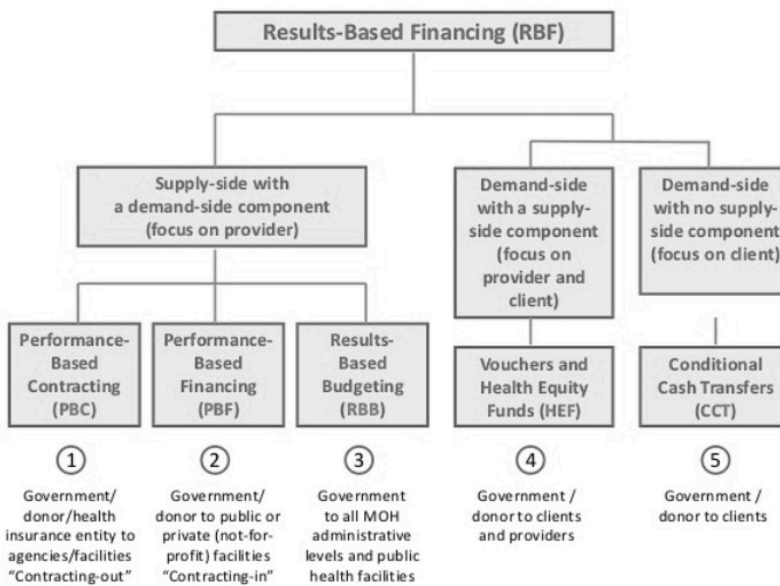
Thus, in Pakistan, contracting-out services for public financing, including private-for-profit providers and NGOs will be a significantly new and ambitious, previously unfunded, activity for the DOH. Given the limited budget for this activity in the Health Strategy, it does not appear to be a short-term priority.

CONTRACTING IN (PBF)

Definitions

- **Results-based Financing (RBF)** is a family of health service purchasing strategies that have rapidly expanded in many countries in the last decade. An accepted definition of RBF is "any program that rewards the delivery of one or more outputs or outcomes with one or more incentives, financial or otherwise, upon verification that the agreed-upon result has actually been delivered" (Musgrove 2013).
- **Performance Based Financing (PBF)** is a restricted subset of RBF with three requirements: "1) Incentives are directed to providers, not beneficiaries. 2) Awards are purely financial – payment is by Fee-for-Service for specified services; 3) Payment depends explicitly on the degree to which services are of approved quality, as specified by protocols for processes or outcomes."(Musgrove 2013). PBF, as discussed in this paper, provides financial incentives to providers in government facilities similar to the World Bank activity in Punjab Province (http://www.rbfhealth.org/country/pakistan).

Figure 2: Adapted from Namioli 2013



Rapid uptake of PBF

Over 30 countries in Africa, Asia, and South America have initiated pilots of PBF in the last five years. Several countries are in the process of nationally scaling-up PBF (Rwanda, Burundi, and Zimbabwe).

EVIDENCE OF PBF IMPACT

Despite the rapid spread of PBF, robust evidence on its effectiveness has been slow to appear. A Cochrane review in 2012 (Witter, S et al) found:

> *The (PBF) interventions varied…one used target payments linked to quality of care… Two used target payments linked to coverage indicators…3 used conditional cash transfers, modified by quality measurements…Two used conditional cash transfers without quality measures. One used a mix of CCT and target payments. Targeted services varied. Seven (of 9) studies had a high risk of bias.*

Conclusions: The current evidence base is too weak to draw general conclusions…PBF is not a uniform intervention, but rather a range of approaches. Its effects depend on the interaction of several variables, including the design of the intervention (e.g. who receives payments, the magnitude of the incentives, the targets and how they are measured), the amount of additional funding and contextual factors including the organizational context in which it is implemented.

The German Federal Ministry (BMZ) commissioned an Evidence Brief and Peer Review in Feb 2013 (Gorter et al., 2013) of PBF on maternal-child health and on provider performance. They applied core principles of a systematic review but were less rigorous than a Cochrane review so as to include a total of 70 studies, including 5 PBC, 12 PBF, 5 voucher, 4 CCTs…I'in 23 countries. They found:

Where RBF is introduced, it can make a substantial difference in terms of utilization and coverage of those health services which are incentivized, especially for targeted indicators, including maternal health indicators. There is growing evidence on the positive effects of RBF on access to and utilization of maternal health services, but evidence on the effects of service quality and maternal health outcomes is limited. Also there has been little or no investigation on the long-term and system-wide effects of RBF on overall health service provision in a country….anecdotal evidence suggests that some potential undesirable effects of RBF, such as motivating unintended behaviors, distortions, gaming or fraud, dilution of professionals' intrinsic motivation, are possible and need to be carefully monitored… In general, when compared to traditional input-based approach, RBF – be it PBC, PBF, RBB, or vouchers – appears to be more effective in increasing the utilization of services…

The Evidence Review was subsequently peer-reviewed by a different group of independent experts (Jahn et al. 2012), which confirmed the original findings.

HOW PBF WORKS

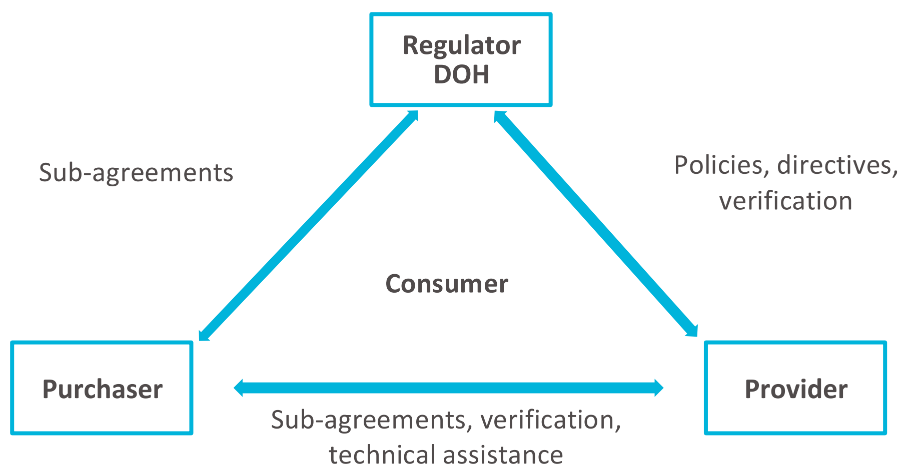
There are limited reports on specific PBF design features or on specific health system changes that occur with PBF. One study showed that PBF can lower user fees in fee-for-service environments (Soeters 2011). One study in Armenia that showed that vouchers for deliveries significantly decreased informal payments (Smith O 2013). A study of a failed PBF activity in faith-based centers in Uganda concluded that incentives were too small, especially when the government had just increased salaries at public facilities, and that the bonus structure was too complicated (Ssengooba 2012). In Rwanda, in comparison to health workers receiving equal compensation as salaries, workers receiving PBF incentives were found to be 20% more productive and to practice closer to their "knowledge frontier"(Gertler 2013).

While there are no robust studies directly linking PBF to the following health system changes, the following effects have been described (Naimoli 2010):

Table 1: Healths System Weaknesses and PBF

Health system weakness	Effect of PBF
Poorly motivated providers/absenteeism	Incentives and recognition motivate health workers to perform. Facility distribution formulas penalize absent health workers. Indicators give direction and feedback to workers. Regular supervision.
Poor M&E systems	Primary source data more complete. Use of data improves with external verification and payment conditioned to complete, verifiable data. Data shared transparently.
Lack of accountability	Performance of system is measured and communicated. System performance shared externally. Clarified roles and expectations. Separation of purchaser and provider.
Underperforming health service	Quantity and quality of essential, cost-effective preventive services improves.
Lack of essential drugs	Facility penalized if stock-outs. Local and Facility management of drugs improves.

Figure 2: Cordaid Presentation on Separation of Functions in PBF (Vroeg 2011).



Because financing and service delivery systems vary dramatically from one country to another, country-specific PBF features also vary significantly. One model of PBF has been more widely taught in Africa in over 30 courses, and will be the primary PBF model discussed here (Soeters 2103), with variations presented when helpful.

Key Features

The key features of PBF include clearly defined and separate provider, purchaser, and regulator functions (Vroeg 2011). In many public health systems, Ministries of Health often have all three roles. Having multiple roles can create conflicts of interest, such as reporting on one's own performance and then paying for their own service delivery performance. Thus, separating these functions in PBF introduces new governance roles and relationships.

Table 2: PBF Roles (From 2010 Mozambique PBF training, led by Elizabeth Glaser Pediatric Aids Foundation)

Functions	Entity	Roles
Regulator	Provincial health authority	Allocate adequate resources and ensure procedures are followed.
Purchaser	NGO	Verify service outputs and pay per PBF formula.
Provider	Health Center	Provide best services to maximize performance using available resources.

Regulator

The key function of the Regulator is to govern and steward the PBF program.

Stewarding the health system and protecting the health of the population: The primary job of the regulator is the stewardship responsibility of the Department of Health. The Regulator should assure that the population's health is protected by access to affordable, quality health services.

Approving the rules of functioning of the PBF program: The Regulator initially and regularly reviews and approves all provincial health policies, including the functioning of the PBF program.

PBF Steering Committees: In various countries, Districts and Provinces have established "PBF Governance/Steering Committees" that routinely review facility performance reports, review invoices for approval and oversee the implementation of PBF within their districts. In Rwanda, a series of formal agreements were signed between all parties, including mayors, facility directors, and all health facility employees outlining roles and responsibilities for all parties, as well as performance outputs and payments for completing these outputs. Further in-person assessment will be needed to determine the options for constituting a steering committee.

Policy and Regulatory Landscape: In centralized health systems, often many policies and regulations restrict key activities, such as hiring and firing personnel, procuring drugs, to higher government levels. In PBF, ideally, many of these functions would be under the control of providers, who are now motivated and equipped to improve facility performance. A key role of the regulator is to set overall policy and regulator frameworks so that providers can make key management decisions.

District as Provider or Regulator: In some PBF programs districts are defined as Regulators and in others, districts function as Providers. Districts should not have both functions. This is a higher level decision that the Regulator needs to make.

Provider

The key function of the provider is to provide continually improving quantity and quality of needed services. Management of district service provision, such as clinical supervision or district drug stock management, is a provider function.

Strengthened district and facility management: It is likely in high corruption- contexts that some higher government levels depend on informal revenue streams as substitute salaries. In PBF, providers and key district and provincial managers who support PBF implementation can legally receive performance payments for performing specific PBF functions. For example, the DOH is usually responsible to approve facility PBF invoices prior to payment by the purchaser, approve facility business plans and approve the actual indicators and prices. The purchaser can establish a performance contract directly with the DOH to perform these responsibilities. These higher level PBF management performance agreements may provide earnings that substitute for lost informal payment streams.

Managing PBF budgets to improve facility performance: In PBF, funds flow from the purchasing agent to facilities and typically are distributed to health facility staff based upon transparent and well publicized formulas. While managerial authority may be difficult to formally devolve to district or facility levels, providing a budget to facilities immediately increases local autonomy. Thus, PBF can be "applied" relatively easily to existing health systems, resulting in greater decentralization of management and motivating staff, building up local ownership, without laborious policy reform.

Dual practice, informal payments and absenteeism: Public health sectors with corruption are significantly undermined by provider behaviors (Lewis 2007).

> *Dual practice may lead to predatory behavior by health workers. This constitutes, in many cases, a de facto financial barrier to access to health care. It delegitimizes public sector health service delivery and jeopardizes the necessary trust relation between user and provider"* (Ferrinho 2004)

Successful PBF implementation cannot co-exist with fraudulent reporting of performance, including counting patients who were informally referred to private practices. The basis for PBF is that providers improve their service delivery and get financially rewarded for doing so. The amount of performance incentives must counterbalance the revenue from informal charges and referrals to one's private practices. The accountability systems to identify and to penalize informal payments and referrals must be rigorous and effective.

Absenteeism has been dramatically reduced in Benin (Lemiere 2012) and Mozambique PBF (unpublished). Informal payments were eliminated in Armenia (Smith O 2013).

Purchaser

There are two key functions of the purchaser. The first function is to pay for the agreed-upon services and activities of the PBF program, which requires verifying that the services reported were actually delivered. The second key function is fundholding, which is the actual payment mechanism and transfer of funds.

Verification of performance: As part of a contract, purchasers need to verify what they are paying for. The purchaser needs to verify that the services they are buying were actually provided. Verification must be robust enough to identify fraud, including informal payments. Usually, "ex-ante" (before payment) verification is done by a team, including

representatives of the Regulator, as they need to assure the functioning of the health system. Verification needs to occur at the facility, so that primary source service records can be confirmed, as needed. SOPs need to be developed so that verification is standardized. Thus the Provider at the facility works with the Purchaser and the Regulator to reach agreement during verification on the actual performance of the facility. Typically, all parties will sign the Verification form, used to generate the payment invoice.

A second level of independent verification, "ex-poste" (after payment) is performed outside the health facility to confirm that reported patient visits actually occurred and were without informal payments or referrals. Typically, these have been done in the community. However, concerns of confidentiality are significant and new types of independent verification, such as by cell phones, are being explored.

Verifying the quality of care is more technically complicated and requires some degree of professional training. Quality verification occurs separately from quantity verification. To assure that there is not collusion between the facility being verified and the professional verifier, some PBF programs have hired staff from regional hospitals or technical assistance NGOs. Quality verification usually occurs less frequently but is more labor-intensive.

Purchaser outside the DOH: To assure separation of functions, the purchaser ideally would be outside the line authority of the MOH. This will avoid the MOH regulating and paying itself. Verifiers/purchasers should be resistant to capture; e.g. clearly independent to avoid collusion, such as a parallel line ministry. In a pilot phase, an international NGO or other independent entity may function as the purchaser. If they do not have technical capacity to assure verification, they need to purchase services from an independent entity that can.

Paying for Outputs: Generally speaking, paying for outputs is more verifiable than paying for inputs in corrupt contexts, since outputs are more measurable and since payment is made only after outputs are measured (Kenny C 2013). PBF service subsidies should be high enough that providers and their managers would be willing to sacrifice informal revenues.

PBF Implementation

Pilot Phase

Typically PBF is piloted in a smaller geographic region in a first phase of 6 months to 2 years. The purpose of piloting is to successfully adapt PBF to the particular country context. A second purpose is to build local ownership and champions for PBF. A third purpose is that a "pilot" provides an opportunity to experiment or waive standard procedures, if needed. The World Bank's PBF "Country Pilot Program" currently lists 23 countries (including Punjab Province) where PBF pilots are being supported. Phase 1 (the pilot phase) should also consider evaluating the impact of PBF. The World Bank routinely budgets for a robust impact evaluation as part of their PBF activities (www.rbfhealth.org).

Moving from Pilot to Sustainable Implementation

Sustainable national systems that provide for separated purchasing, regulating, and provider functions need to be established and functioning by the beginning of scale-up: the second phase.

PBF Information Systems

Current M&E weaknesses do not necessarily predict future PBF implementation failures. A reason for poor M&E systems often is a lack of ownership and relevance of the data. The PBF verification process (which determines the payment) in PBF programs quickly makes the data highly relevant to providers and purchasers (Fritsche 2010). Facility and provider active "ownership" of service data is one of the first changes seen with PBF. Primary service delivery data sources (patient records and registers) must be available, legible, and complete for robust verification. From patient records, service data must be collected and aggregated to determine payments. Prior to phase 1 of the pilot, indicators will be chosen from those currently collectable within the existing HMIS and DHIS. Baseline measurements of the chosen indicators, as well as selected non-paid indicators, should be collected in PBF and non PBF zones for evaluation of the impact of PBF. The two automated systems (HMIS and DHIS) appear to have capacity to report on indicators as needed in a PBF program; however, the systems are not reliably installed or used.

An early step prior to PBF implementation is to do a walk-through of various facilities to ensure that proposed indicators are actually collected. It is useful to evaluate the potential capacity (such as automated systems) as well as the actual capacity to track service performance. The baseline quality of existing primary and aggregated data sources is important for measuring impact. Once PBF is initiated, there is an incentive to over-report performance. Verifiers will need to spot check to confirm aggregate data with primary source data. Opportunities to triangulate data (such as with lab and pharmacy stocks) may be useful. Standard operating procedures for data collection and for verification need to be developed.

IV LITERATURE REVIEW TO ASSESS PBF FEASIBILITY IN SINDH PROVINCE

As noted above, many of the health system weaknesses present in the Sindh public sector have improved during PBF implementation in a wide range of income, legal, and cultural contexts. Given the diversity of contexts in which PBF has been successfully implemented, it seems likely that PBF can also be successfully adapted to Sindh. The usual circumstances in which PBF did not have success, like Uganda, are when the PBF model was not appropriately adapted to the country context.

This section discusses issues relevant to the feasibility of successful implementation of PBF in Sindh Province. While many specific adaption issues for Sindh are difficult to glean from international literature, the typical issues are well-known. Specific field visit tasks to identify Sindh adaption issues are described.

REGULATOR FUNCTIONS

In adapting PBF to Sindh, because of the perception of widespread corruption, every effort should be made to clearly separate functions to reduce and/or manage conflicts of interest.

In the Sindh health system, as in most centralized public health systems, the DOH performs all three functions of Regulator, Purchaser, and Provider. Given the recent restructuring of Sindh Department of Health it may be appropriate for the newly formed Health Sector Reform Unit (which includes M&E) of the Provincial DOH, with participation of all other relevant offices, to assume the Regulator function.

Per the Sindh Situation Analysis, current responsibilities are allocated among levels as:

Figure 4: Adapted from (Zaida 2011) Sindh Situation Analysis, Table 7.2

Health Functions Post 18th Amendment of Constitution 2010

Functions		Provincial	District	Facility
Legislation		√	X	
Policy formulation and implementation		√	X	
Budgeting		√	√	?
Procurement		√	√	?
Drug regulation and control		√	X	?
International commitments		√	X	
Human Resource Development		√	√	?
Vital statistics (HMIS)		X	X	
Vital statistics (DHIS)		√	√	
Donor coordination		√	X	
Service provision	Vertical programs	√	√	?
	Prevention from contagious diseases	√	X	?
Administrative control of attached departments		√	X	
Oversight of autonomous bodies		√	X	
Monitoring & Evaluation		√	√	?

From this table of responsibilities, it seems there are many functions managed at both provincial and district level in Sindh. Further assessment is needed to discuss current procedures, as appropriate, with the Sindh DOH and with districts to identify the best entity to assume regulator, provider and purchaser functions. It is important to clarify whether districts currently function more as regulators or as providers; this is important, as the district can measure performance as a regulator, but not if it is functioning as a provider.

A pilot period allows opportunities to test the assigned roles of provinces and districts in implementing PBF. For example, if provinces currently make all HR hiring and placement decisions, a pilot phase alternative arrangement could be that districts or facilities propose hiring decisions for provincial approval, without requiring a change in legislation. A field assessment will initiate a discussion of how some decision-making would change under PBF.

A field visit task would be to discuss with the Sindh DOH which offices should participate on and which office(s) could lead a PBF Steering Committee. Key functions of this committee usually include:

- Initially and annually approval of PBF indicators, prices, verification procedures, and guidelines for distributing PBF funds within facilities.
- Reviewing performance measurements of district facilities and approving PBF invoices for payment.

- Identifying common performance issues and supporting provincial level performance improvement activities.
- Participating in facility verifications.
- Reviewing and approving facility/district business plans.

A key role of the Regulator is to help establish policy and regulatory conditions that facilitate the provider to make management decisions needed to improve service delivery at facilities. During a field visit, mapping of existing Sindh policy and regulatory requirements will be undertaken. Specifically, understanding which HRH, procurement, drug logistics, M&E, budget and financial management responsibilities are handled by the different levels in Sindh and what potential regulatory challenges exist that could challenge PBF implementation will be considered.

PURCHASER FUNCTIONS

Verification

The purchaser must assure they are paying for services actually provided and received. The field visit will assess potential challenges in verification in Sindh starting with site-level M&E systems, including primary source patient records, registers, DHIS and HMIS and data aggregation levels. The purchaser must oversee directly or participate in verification to assure reported performance is accurate. Given the perception of widespread corruption, verification will be the greatest challenge in Sindh. A range of modalities, both incentives and sanctions, to deter corruption will need to be used in the PBF program. The performance incentives, both monetary and non-monetary, must be enough to balance potential revenue from informal payments and dual practice. Direct review of primary and aggregate patient records must be rigorous. Opportunities for triangulation of data can be identified. Developing a robust and active independent ex-poste verification to ask patients about informal payments and dual practice will be critical. Given the widespread use of cell phones, this should be investigated closely to determine its utility in ex-poste verification.

Payment mechanisms

The field visit will assess potential legal/regulatory obstacles for PBF payments to flow to providers and health workers and understanding the advantages and disadvantages of different cash transfer systems. When facilities receive funds, it needs to be determined if/how they will be accounted. Determining if there are legal or regulatory issues for facilities to use PBF funds for human resource, drug, supplies, investment and other needs in order to improve service delivery performance needs to be evaluated during the field visit.

Identifying potential long term fundholding and purchasing agents

In the pilot phase, the initial purchasing agent may be the funder, which could be a donor, an external partner, international financial firms, international NGOs or any entity where collusion is less risky. A permanent home for the purchasing function needs to be established for the scale-up phase. Given the perception of corruption in Pakistan, an assessment should be undertaken to identify the most unbiased and trustworthy purchasing entity. Potential purchasing agents for contracting-in of public services can include: funders and their agents, existing non-DOH state or para-statal entities, or even independent non-state entities that include consumers. At present, the literature does not reveal the existence of an existing entity in Sindh, thus either a new entity may need to be created or an existing entity may need to add capacity to take on this new function.

Existing Pakistani entities with the potential to be a fundholding/purchasing agent might include:

- Department of Finance
- Sindh Employee Social Security Institute
- Pakistan Bait-ul-mal

PROVIDER FUNCTIONS

Eliminating informal payments, absenteeism and dual practice are critical to improve the quality of public sector care. Under PPHI at contracted-out sites, absenteeism, dual practice, and informal payments were eliminated.

PBF should have the same effects as PPHI. The PPHI RSP successfully eliminated dual practice by paying physicians 150% more, by increasing their responsibilities (numbers of facilities), and by holding physicians more accountable. For PBF to be successful in Sindh, districts and facility managers must have enough management authority, motivation, and themselves be held accountable enough to eliminate dual practice and informal charges. Such accountability is difficult to enforce if there are not both incentives for good performance and sanctions for both the providers and their senior managers for lack of performance.

It appears that considerable effort was expended working with the DOH, districts and the Public Service Commission to make these changes to the physician workforce, with some inevitable tension.

Achieving such changes in the Sindh public sector provider workforce will require:

- Significant facility (and provider) incentives for improved facility service delivery performance and sanctions for absenteeism, informal charges and referrals to private practices. The actual estimate of revenue for providers to abandon informal payments must be made early in planning, so that other budget decisions affecting the PBF pilot can be implemented.
- District level incentives for improved facility/district performance. Districts will need to be motivated and empowered to make the needed personnel reductions and changes.
- Close work with the Public Service Commission to understand their rules and procedures and to minimize higher level decisions to repost staff. The more PBF can be aligned within existing PSC rules, the easier it will be to implement. However, if PSC rules make it bureaucratically difficult to take personnel actions, there may need to some devolution of personnel responsibilities to districts.
- Compared to HR norms, there is not a significant surplus of physicians in Sindh, but the relative composition of providers has a physician excess. To stay within budget, there may be a need to reduce physicians from the Sindh public payrolls. It is critical to understand what public services commission liabilities might exist in order to reduce physician payroll numbers.
- Recruiting and performance incentives to expand the female physician, nurse, midwife and community health worker cadres.

OTHER FEASIBILITY ISSUES

Health Financing Stream Analysis

In 2012, private financing from out-of-pocket expenditures was the largest source (66%) of health funding in Sindh. Total provincial expenditure on health was low at 4.4% of GDP.

Sindh Province expenditure on health was 5.76% of total provincial expenditure in 2012. Sindh health spending was 4% of its total provincial public spending. Combined province and district health spending is 6% of their total budget (HLSP 2012 p. 21).

The Sindh Health Strategy budget is based upon increasing the provincial health budget to 8% of total provincial budget, up to $9.5 per capita. Donor spending, currently only 1% of THE, is estimated to increase to equal ¼ of government spending or 11.1PKR. Philanthropic spending is estimated to increase to 15% of current government spending. From the literature, it is not clear to what extent funders have committed to these proposed levels of funding. The largest increase in the Sindh Health Strategy is to increase current operating budgets of district budgets by approximately 50%, which could be used to finance PBF.

The size of relevant informal payments is difficult but important to estimate. If providers earn more informally currently than they will via PBF, it will be very difficult to change their behavior. Usually when motivated and not absent, provider productivity increases. Either provider numbers will decrease to stay within budget or the additional funds in the Sindh strategy will pay for increased numbers of patient visits in the public sector. A standard PBF package is estimated to cost $3 per capita, although that varies based upon other health financing revenues.

Determining indicator prices that are high enough to deter providers from informal payments is a function of the pilot phase. This will be inherently difficult to determine; a credible and confidential survey of providers will need to be carefully considered in the field visit.

M&E/Information Systems in Sindh

The Sindh public health sector information system is fragmented and currently not functioning at an acceptable level. The reasons the current Sindh systems are not functioning frequently include: (HLSP 2012)

- Lack of ownership of information systems and data by users and managers
- Lack of data use at any levels for management or planning
- Gaps in HR, training, and hardware

While the lack of ownership and data use may change quickly in Sindh during PBF implementation, the gaps in HR, training and hardware will need to be addressed. Thus, the field visit should closely identify existing gaps in HR, training, hardware and procedures. Appropriate inputs will need to be provided during PBF implementation, as soon as motivation improves.

V CONCLUSION

Based on PBF experience in a wide range of contexts and a comprehensive literature review of PBF, Pakistan, and mixed public-private sector models, we believe it is possible for PBF to be successfully implemented in Sindh Province, and contribute to strong health system performance improvement.

To succeed, the following ingredients are critical:

- Verification must be robust and independent enough to identify informal payments and referrals of public patients to private practice. There must be financial and other penalties for informal payments and unnecessary referrals.

- Engaging stakeholders is critical. Other vested interests must be identified and addressed strategically.
- Provider and higher level manager incentives must be large enough to compensate for lost informal income.
- There may be a need to reduce public sector physician staff, if politically feasible, to stay in budget. At a minimum, provider incentives should reflect individual performance including their attendance.

Evidence is accumulating in diverse settings showing that PBF and PBC can improve the quality and quantity of priority health services. Documentation from PBF and PBC implementation in a wide range of countries suggests that PBF and PBC have broad health system strengthening effects. With careful implementation and sustained effort, PBF may contribute to the reduction of informal fees, absenteeism, and dual practice in Sindh, as was the case in PPHI RSP.

Performance-based contracting of poorly performing district health systems did bring service delivery improvements and is likely to continue to do so, especially if lessons are learned. Sindh Province has shown intent to strengthen its public health system for basic services. Thus, there is a critical opportunity for positive political championing for important health reform, including PBF.

Regulating and harnessing the private sector is critically important to protect the health of the population and is clearly part of the stewardship mission of the DOH. This desk review recommends using incentives for improvement per the Sindh Health Strategy. This will be a long term process.

The literature clearly shows that there are many vested interests in the Sindh Health System, and therefore there will likely be resistance from these quarters. Many health system players will fear loss of income. It is useful to communicate that health reform, including PBF, is not a zero-sum game, but a win-win opportunity where the health system as a whole can receive more investment and become more productive.

PBF institutionalizes a continuing cycle of performance improvement, through routine performance measurement and incentives for improvement. PBF verification and contract cycles institutionalize a process of continuing health system improvement. Pakistan’s history of entrepreneurism and private sector initiative can be harnessed with PBF to foster social-entrepreneurism with better health for all as an outcome.

ANNEX 1: REFERENCES

Agboatwalla M. 2010. *To Assess the Extent of Absenteeism in the Health Sector in Pakistan*. The Brooking Institute. Washington DC.

Ali, S et al *Assessing Best Practices in Devolution. Innovative Health Management: Rahimyar Khan District*. CIDA Devolution Support Project.

Bhutta Z et al. 2013. *Health Transitions in Pakistan 2: Reproductive, maternal, newborn and child health in Pakistan: challenges and opportunities.* The Lancet. www.thelancet.com. 381. P 2207.

Basu, S, et al. 2012. Comparative Performance of Private and Public Healthcare Systems in Low and Middle Income Countries: A Systematic Review*. PLOS Med* (2012) 9(6).

Cristia, J, *et al.* 2008. *Does contracting out of primary care services improve child health? The case of Guatemala*". Population Association of America. Retrieved from http://www3.nd.edu/~wevans1/working_papers/PEC_August_2011.pdf (Oct 2013).

Evidence Brief: Does RBF Improve Maternal and Newborn Health? 2013BMZ/GIZ/KFW. Retrieved from http://german-practice-collection.org/en/evernts/expert-forum-results-based-financing-eschborn.

Ferrinho P, *et al*. 2004. Dual Practice in the health sector: A review of the evidence. *Human Resources for Healt*h **2**:14.

Fritsche G. 2010. *Performance-Based Financing: The Case of Rwanda.* Presentation at The World Bank Flagship Module on SHI. Washington DC: The World Bank.

Gertler, P and Vermeerch, C. *Using Performance Incentives to improve medical care productivity, Health" Institute for research on Labor and Employment*. UC Berkeley. 2-13-2013.

Gorter, A, Ir P, Meesen B, 2013 *Evidence Review: Results-Based Financing of Maternal and newborn Health Care in Low and Middle Income Countries.* German Federal Ministry for Economic Cooperation and Development (BMZ) through the sector project PROFILE at GIZ.

HLSP. 2012. Road Map for Health System Strengthening in Sindh Province to Support USAID/Pakistan's RMNCH Programs in Pakistan. London: HLSP.

Health Results Innovation Trust Fund progress report 2013. "*Using RBF to Achieve Maternal and Child Health*". Washington DC: The World Bank.

Jahn A, Paul F, Beiersmann C. 2013. *Peer Review: Results-based Financing of Maternal Newborn Health care in Low and lower-middle income countries.* Heidelberg.

Kenny C. 2013. *Can Results-Based Payment Reduce Corruption?* Center for Global Development, Working Paper 345. Retrieved from http://www.cgdev.org/sites/default/files/can-results-based-payments-reduce-corruption.pdf (Oct 2013).

Kumaranayake L, *et al.* 1998. *Effective regulation of Private Sector Providers.* London School of Hygiene and Tropical Medicine. London, UK.

Lahore. 2012 "*Health Facility Assessment: Sindh Provincial Report*". Technical Resources Facility.

Lemiere, Christopher. *RBF in Benin and Senegal: Some (first) lessons learned: Geneva 2012*. Unpublished data. World Bank.

Lewis M. 2007. Informal Payments and the Financing of Health Care in Developing and Transition Countries" *Health Affairs* 26(4):984-997.

Liu, X, et al. 2008. The effectiveness of contracting out of primary health care services in developing countries: a review of the evidence. *Health Policy and Planning* **23**: 1-13.

Loevinsohn B, *et al.* 2004. *Contracting-out for delivery of community health services: A review of global experience*. HNP discussion paper. Washington, DC: The World Bank.

Loevinsohn, B et al. 2005. Buying Results? Contracting for health services in developing countries. *Lancet* **366**:613-5.

Loevinsohn, B, *et al*. 2008. *Performance-based Contracting for Health Services in Developing Countries: A Toolkit*. Washington DC: The World Bank.

Martinez, J et al. 2011. *Third Party Evaluation of PPHI in Pakistan: Findings, Conclusions and Recommendations.* Technical Resource Facility, HLSP.

Mills, A. 1998. *Experience of Contracting out Health Services: an Overview of the Literature*. HEFP Working Paper, London School of Hygiene and Tropical Medicine: London, UK.

Morgan, L "Some Days are Better than Others: Lessons from Uganda's First RBF Pilot" http://www.rbfhealth.org/system/files/RBF_FEATURE_Uganda.pdf

Musgrove, P "Rewards for Good Performance or Results: A Short Glossary" www.rbfhealth.org (Oct 14, 2013).

Naimoli, J et al "*Verification at a Glance: A Series of Snapshots of Experience in verifying Performance Linked to Financial Incentives for RPF Programs from Selected Countries.*" RBF Team, The World Bank. April 2010.

Naimoli J. 2010 *Building Strong Health Systems: The Promise and Reality of Performance-based Financing (PBF).* Presentation at Africa SOTA. USAID.

Nishtar, S, et al. *Pakistan's Health System: Performance and Prospects after the 18th Constitutional Amendment*. Lancet 381. June 21, 2013.

Saksena P, *et al*. 2010. *Health services utilization and out-of-pocket expenditures at public and private facilities in low income countries*" World Health Report Background paper No. 20. Geneva, Switzerland: World Health Organization.

Shiwani M et al. 2011. Medical Negligence: A Growing Problem in Pakistan. Journal of Pakistan Medical Association. Retrieved from http://www.jpma.org.pk/full_article_text.php?article_id=2837 (Oct 2013).

Smith, A et al. *Working with Private Sector Providers for Better Healthcare: An Introductory Guide.* Options Consultancy/LSHTM 2001. ISBN 0902657712.

Smith, O et al. 2013. *Getting Better: Improving Health System Outcomes in Europe and Central Asia.* The World Bank. P. 135.

Soeters, R et al "Global Health Financing: Performance-based Financing Experiment Improved health care in the Democratic Republic of the Congo". Health Affairs Aug 2011 30(8) p 1518-1527.

Soeters R. 2013. *Performance-based Financing in Action: Theory and Instruments. Course Guide-PBF*. The Hague: CORDAID – SINA.

Ssengooba F, McPake B, Palmer N. 2012. *Why performance-based contracting failed in Uganda--an "open-box" evaluation of a complex health system intervention*. Soc Sci Med.

Tangcharoensathier, V, et al: 2008. *Regulation of health service delivery in the private sector: challenges and opportunities.* Technical partner paper 8. International Health Program, Thailand. The Rockefeller Foundation/Results4Development.

Technical Resources Facility. *Sindh Health Sector Strategy 2012-2020* .Health Sector Reform Unit. Sindh Department of Health.

Technical Resources Facility. 2010. *Responsiveness and Accountability in the Health Sector, Pakistan*.

Transparency International. 2006. *Pakistan's Health Sector: Does Corruption Lurk?* Retrieved from http://www.heartfile.org/pdf/health-sector-corruption-pakistan.pdf (Oct 2013).

Transparency International. 2011. *National Corruption Perception Survey 2011*. Retrieved from http://www.transparency.org.pk/documents/annual_report_2011.pdf.

Vroeg, 2011. P. *PBF: Principles and Practices.* Cordaid. Retrieved from http://www.docstoc.com/docs/94810525/PBF-Principles-and-Practices-Cordaid-WB-100615.

Witter S, et al. 2013. Performance-Based Financing as a Health System Reform: Mapping the Key Dimensions for Monitoring and Evaluation. BMC Health Services Research 13:367.

Witter S, Fretheim A. 2012. Paying for performance to improve delivery of health interventions in low and middle income countries (Review). The Cochrane Library.

World Health Assembly. 2010. *Strengthening the capacity of governments to constructively engage the private sector in providing essential health-care services* 63rd World Health Assembly. 25 March 2010.

World Health Organization. 2012. *Devolution of the health sector following the 18th amendment to the Constitution of Pakistan: opportunities and challenges*. Geneva, Switzerland: World Health Organization.

Zaidi, S, et al. 2011. *Situation Analysis for Post Devolution Health Sector Strategy of Sindh Province*. Aga Khan University.

Zaidi, S. 2013. *Access to Essential Medicines in Pakistan: Policy and Health Systems Research Concerns* PLoS One. 2013; 8(5): e63515.

ANNEX 2: PROPOSED OBJECTIVES AND TASKS FOR A FIELD VISIT:

Objectives:

1 Based on findings of literature review, conduct deeper assessment of Sindh Province context to identify feasibility of PBF

  a. Assess political will for PBF at DOH

  b. Assess capacity of DOH, Districts, and other entities to assume Regulator, Purchaser and Provider PBF functions.

2 Identify options to implement PBF in Sindh based on feasibility assessment.

Tasks:

1 Provide information to relevant stakeholders on international experience with RBF and PBF, as requested.

2 Meet with DOH, ideally with HRSU and other participating offices, to assess capacity to assume Regulator functions.

3 Meet with District Organization and Facility Directors to assess capacity to assume Provider functions.

4 With JSI, USAID, and other stakeholders, discuss potential Purchaser candidates.

5 Understand potential sources and size of funding to support PBF. Estimate approximate budget needed for PBF to determine if realistic.

6 Visit potential sites for PBF implementation, meeting with facility director and some physician staff, review facility data, primary patient records, and aggregated data records.

7 Develop options paper outlining the most feasible options for implementing PBF.