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PAY FOR PERFORMANCE (P4P) TO IMPROVE MATERNAL AND CHILD HEALTH IN DEVELOPING COUNTRIES:

FINDINGS FROM AN ONLINE SURVEY

July 2009

This publication was produced for review by the United States Agency for International Development. It was prepared by Alix Beith, Rena Eichler, Ellie Brown, Dane Button, Natasha Hsi, Kimberly Switlick, Parsa Sanjana, and Hong Wang (Abt Associates Inc.) for the Health Systems 20/20 Project.

HEALTH SYSTEMS 20/20

Mission

The Health Systems 20/20 **cooperative agreement,** funded by the U.S. Agency for International Development (USAID) for the period 2006-2011, helps USAID-supported countries address health system barriers to the use of life-saving priority health services. Health Systems 20/20 works to strengthen health systems through integrated approaches to improving financing, governance, and operations, and building sustainable capacity of local institutions.

July 2009

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Cooperative Agreement No.: GHS-A-00-06-00010-00

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Recommended Citation: Beith, Alix, Rena Eichler, Ellie Brown, Dane Button, Catherine Connor, Natasha Hsi, Parsa Sanjana, Kimberly Switlick and Hong Wang. July 2009. *Pay for Performance (P4P) to Improve Maternal and Child Health in Developing Countries: Findings from an Online Survey.* Bethesda, MD: Health Systems 20/20 project, Abt Associates Inc.

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| Deloitte Consulting, LLP | Forum One Communications | RTI International
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PAY FOR PERFORMANCE (P4P) TO IMPROVE MATERNAL AND CHILD HEALTH IN DEVELOPING COUNTRIES: FINDINGS FROM AN ONLINE SURVEY

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The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development (USAID) or the United States Government

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ACRONYMS

CCT – Conditional Cash Transfer
DRC – Democratic Republic of Congo
FP – Family Planning
HIV – Human Immunodeficiency Virus
MCH – Maternal and Child Health
MDG – Millennium Development Goal
MOH – Ministry of Health
NGO – Nongovernmental Organization
P4P – Pay for Performance
PBF – Performance-based Financing
PBI – Performance-based Incentives
RBF – Results-based Financing
RH – Reproductive Health
STI – Sexually Transmitted Infection
TB – Tuberculosis
USAID – United States Agency for International Development

1. OVERVIEW

In April-May 2009, the USAID-supported Health Systems 20/20[1] project implemented an online survey to capture developing country experience with pay for performance (P4P) – a strategy that is increasingly being introduced with the goal of improving maternal and child health (MCH) outcomes. This survey's purpose is to begin to fill an important gap by addressing a number of questions, namely: what health concerns are developing country P4P schemes primarily targeting? Where are these schemes being planned, introduced, and scaled-up? How are they being designed and implemented? Who is managing them? And what, if any, evidence is there on critical factors to ensure their desired impact?

Only survey responses that were complete were included in the following.[2] Findings reveal that a number of P4P schemes are underway in developing country settings, at varying stages of implementation. Schemes primarily address MCH concerns, are usually led by Ministries of Health (MOH) or nongovernmental organizations (NGOs) and tend to use financial incentives targeting health care providers and/or institutions. This paper provides more detailed analysis of the complete responses and "snapshot summaries" of each of these. We begin with a background introduction to the P4P concept and a discussion of why we decided to conduct the survey. The subsequent section presents findings. The conclusion and next steps sections follow.

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[1] See http://www.healthsystems2020.org/.

[2] It should be noted that, while complete, in several cases responses were not completely clear. Therefore, this analysis reflects the best the authors were able to do with the information supplied by survey responses. We will actively follow-up with respondents to address unclear answers for about 15-20 survey responses over the next few months as we develop detailed case studies (further described in the "next steps" section of this report).

2. BACKGROUND

2.1 P4P FOR HEALTH: AN INTRODUCTION

Rewarding health system actors based on their performance (a strategy called "payment for performance," or P4P[3]) has gained international attention as a potential mechanism for making progress toward attainment of the Millennium Development Goals (MDGs) for MCH. P4P initiatives transfer money or material goods to providers and recipients of health services if they take actions to improve health or to increase utilization or quality of health services.

Driving the growing interest in P4P is the recognition that the existing dysfunctional incentive environments for providers and patients alike within most developing country health systems impede attainment of health objectives. In these challenging environments, it is unlikely that typical approaches that include training, capacity development and complementary inputs will be sufficient to motivate the types of behaviors needed to combine knowledge and inputs to produce effective services and improve health.

P4P can be used to influence the behavior of a wide variety of (both public and private) actors to focus on results such as: individual patients and families, communities, individual or groups of health workers, health facilities, and local government health management teams. What is most important is that the incentive is transferred to the recipient if, and only if, a health result is achieved: "No result, No reward." A handful of P4P health examples are provided in Box 1.

Box 1: Examples of how developing country MCH programs are using P4P

Health care institutions receive a financial incentive when they achieve pre-defined service delivery targets (Belize, Burundi, Zambia) or implement quality improvement plans (hospitals in Honduras), and these payments are partly used to reward health workers.

Health facilities are paid a financial incentive when they reach utilization (and, in a few cases) quality targets (Benin, Brazil, Democratic Republic of the Congo [DRC], Philippines), and these payments are partly used to reward health workers.

Health providers receive financial support to attend conferences/workshops as an incentive which is tied to achievement of specific targets (Egypt)

Patients receive financial support to cover costs of transportation, food, and medicine when they present at health services (Cambodia)

District health authorities receive a bonus payment when service delivery outputs in their districts improve and when district health teams perform specific levels of support to health facilities (Ghana, Tanzania, Zambia)

[3] Other terms with meaning similar to P4P include: performance-based financing (PBF), performance-based incentives (PBIs), conditional cash transfers (CCTs), and results-based financing (RBF).

2.2 WHY IMPLEMENT A SURVEY TO CAPTURE DEVELOPING COUNTRY EXPERIENCE WITH P4P IN HEALTH?

Health Systems 20/20's strategy for MCH is to catalyze innovative health financing mechanisms for MCH by improving the capacity of countries to execute approaches such as P4P. Given the recent increased interest in the potential of tying receipt of financial or material rewards to performance with the goal of improving MCH outcomes, P4P schemes have begun to mushroom throughout the developing world. However, country capacity to implement P4P varies. Additionally, while a few programs are moving into maturity (such as those in Rwanda[4] and Haiti[5]), most seem to be in the very early stages of P4P scheme planning, design, or piloting. Given their early status, little to date has been documented about them. As the number of P4P experiences grows, sharing both positive and negative experiences and the details about what factors drove their development and implementation is useful to inform the success of future P4P programs.

Health Systems 20/20 implemented an online survey[6] with the goal of beginning to systematically document "who is doing what" in P4P for health in developing country settings, specifically looking at what P4P schemes exist for maternal, newborn, and child health in the 30 USAID MCH priority countries.[7]

The main objective of this survey was to capture information about P4P schemes in order to share lessons, innovations, and good practices with others. The survey sought to determine:

- How incentives are being used in developing countries: to motivate whom to do what to improve health outcomes – and how? What action/behavior or outcome is tied to receipt of the incentive?
- How P4P schemes are being designed and implemented and to identify major gaps in knowledge. Why was a particular P4P scheme chosen? How was stakeholder support for the scheme generated and how have P4P interventions been administered, monitored, and evaluated?

We anticipated that the survey process would also generate gray material on P4P, such as P4P contract examples, planning/implementation workshop materials, and evaluation methods, that Health Systems 20/20 can make publically available as part of its planned online "P4P information hub."[8]

The survey team decided to motivate individuals to complete the survey by giving the top eight survey responses a reward. Rewards consisted of an honorarium of US $200, virtual assistance with turning each of the eight survey responses into a case study that will be posted on the Health Systems 20/20 web site (with the respondent and/or their team listed as co-authors) and the satisfaction that comes from sharing knowledge and experience. Selection of reward recipients was dependent upon

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[4] Health facilities are paid a fee for specified child and reproductive health services that include immunizations, antenatal care, family planning, deliveries, and referrals to higher levels of care in the case of complications.
[5] NGOs are contracted to deliver a package of services and a portion of their payment is linked to whether they achieve a pre-set annual target increase in the proportion of the population receiving a priority services (for example: number of women in the population they serve that deliver with skilled assistance).
[6] See Annex A for a brief overview of survey methods and Annex B for the survey itself.
[7] See Annex C for a list of these countries.
[8] This P4P information hub, to be established in late 2009, will be a relatively simple resource that will primarily house P4P tools and documentation developed under Health Systems 20/20 and gray materials from survey respondents (posted with their permission). The site will link to other global partner efforts currently supporting P4P implementation in developing country health settings, such as NORAD and the World Bank.

completeness and richness of survey response (see Annex D for a description of scoring criteria used). The eight chosen reward recipients were from Belize, Burundi, DRC, Egypt, Kenya (two schemes), the Philippines, and Zambia.

3. SURVEY FINDINGS: WHAT HAVE WE LEARNED?

3.1 RESPONSES RECEIVED: HOW MANY? FROM WHERE? HOW MANY ARE IN USAID MCH PRIORITY COUNTRY SETTINGS?

The survey was "live" from April 21st to May 25th, 2009. During that time, 90 electronic responses were received, of which 13 were so incomplete that it was not even clear what country was responding. Of the remaining 77 "real" responses, 24 were complete enough to already report some features.

The geographic distribution of the 24 complete responses was as follows (see Table I below for those that are in developing country settings): 11 in Africa, four in Asia, three in Latin America and the Caribbean, and one each in the Europe and Eurasia and the Middle East regions. Two responses were from a developed country setting: the United Kingdom. The remaining two responses were somewhat unclear as they describe multi-country schemes.[9] We decided to exclude these from analysis.

Having left out the two multi-country responses and the two from the developed world (UK), the analysis that follows concentrates on the 20 single developing country experiences. A brief (2-3 page) "snapshot summary" of each of these 20 responses is included in Annex E.

Of the 20 responses, 13 are in USAID priority MCH countries (underlined in Table I), while seven are in non-priority USAID developing countries.

TABLE 1: SURVEY RESPONSES BY GEOGRAPHIC REGION

Africa	Asia	Latin America and the Caribbean (LAC)	Europe and Eurasia (E&E)	Middle East
Benin, Burundi (2), DRC (2), Ghana, Kenya (3), Rwanda, Zambia	Bangladesh, Cambodia (2), Philippines,	Belize, Brazil, Honduras	Armenia	Egypt

3.2 WHAT MCH HEALTH CONCERNS ARE P4P SCHEMES TARGETING?

There is a clear dominance of MCH concerns. Eighteen of the 20 P4P schemes included in this analysis target maternal health problems and 13 target child health problems. There are two countries that do not explicitly state what health concerns the P4P scheme is addressing.[10] Five schemes (Burundi, DRC,

[9] One describes schemes in five countries without detailing which five countries, while the other refers to experiences in Burundi, DRC, Rwanda, Tanzania, and Zambia without always clearly identifying which country is being referred to.
[10] Bangladesh discusses an essential service package and Burundi's scheme to be run through the MOH is currently being designed.

Egypt, Kenya, and Rwanda) are engaged in P4P schemes that cross all four categories: MCH, infectious and non-communicable diseases. Table 2 summarizes the major categories of health that the P4P schemes analyzed address.

TABLE 2: HEALTH AREAS TARGETED BY P4P SCHEMES IN COUNTRIES INCLUDED IN ANALYSIS

Country	Scheme implementer*	Maternal health (including RH and FP)	Child health	Infectious diseases	Non-communicable diseases
Total no. of schemes	20	18	13	8	8
Armenia	MOH (in conjunction with the State Health Agency)?	X	X		X
Bangladesh	NGO network	"Essential service package"			
Belize	MOH (with National Insurance Program)	X			X
Benin	MOH	X			
Brazil	HMO-style private cooperative	X	X		X
Burundi	MOH	Not clear – TBD			
Burundi	NGO	X	X	X	X
Cambodia	NGO	X	X		
Cambodia	MOH	X		X	
Democratic Republic of Congo	MOH	X	X	X	X
Democratic Republic of Congo	NGO	X	X	X	
Egypt	MOH	X	X	X	X
Ghana	Ghana Health Service**	X	X		
Honduras	MOH ?	X	X		
Kenya	MOH in conjunction with NCAPD and NGO	X			
Kenya	MOH	X	X	X	
Kenya	NGO	X	X	X	X
Philippines	Department of Health (via PhilHealth)	X			
Rwanda	NGO	X	X	X	X (planned)
Zambia	MOH	X	X		

Note: RH=reproductive health, FP=family planning, NCAPD=National Coordinating Agency for Population and Development

* "?" indicates best guess from survey response.

** The GHS is an autonomous executive agency responsible for implementation of national policies under the control of the Minister for Health through its governing council - the Ghana Health Service Council (see http://www.ghanahealthservice.org/).

The maternal and reproductive health concerns most commonly targeted by P4P schemes are service quality and utilization, indicating that the P4P scheme designers have specific ideas about how to reduce maternal mortality. As to newborn and child health, the top concerns are mostly[11] measures of health outcomes (e.g., morbidity from different causes and malnutrition) indicating that the designers are less clear or less opinionated about how to address the different causes of child mortality.

TABLE 3: PRIMARY AREAS OF MCH CONCERN THAT ARE CURRENTLY TARGETED BY P4P SCHEMES (NUMBER OF SCHEMES IN PARENTHESES)

Maternal and reproductive health	Child health
Poor-quality of delivery care (12) Low postnatal care use (12) Low rates of delivery with a skilled attendant/in a health institution (10) Inadequate utilization of antenatal care (9) Low contraceptive use (8) Malnutrition (4) Low health service utilization (2) High caesarian section rates (1) High prevalence of sexually transmitted infections (STI) (1) Low coverage of pregnant women receiving three doses of interpersonal therapy (1) Low coverage of pregnant women receiving iron supplements at antenatal care (1) Low number of family planning new acceptors (1) Obstetric and neonatal complications management (1)	High morbidity from respiratory infections (7) High morbidity from diarrhea (6) High malnutrition/stunting (6) Low immunization coverage (6) High morbidity from malaria (5) and Poor newborn care in nurseries and lack of equipment (1) Low percentage of children under 6 months who are receiving exclusive breastfeeding (1) Low proportion of children under 5 with diarrhea who are receiving oral rehydration salts (1) High neonatal mortality (1)

3.3 WHAT OTHER HEALTH CONCERNS ARE P4P SCHEMES SEEKING TO TACKLE?

Of the 18 schemes that are possible to include in this analysis, eight target infectious diseases. Seven of these eight also address MCH, while the remaining one addresses maternal health, but not child health. Specific infectious disease concerns revolve around TB, HIV, and malaria and are as follows (number of responses in parentheses): low rates of TB treatment completion (7), low rates of TB case detection (6), inadequate use of antimalarial bednets (5), low adherence to antiretroviral therapy (4), underuse of antimalarials to treat malaria (4), and low knowledge of HIV status (3).

Eight P4P schemes also target non-communicable diseases. Similarly to the case of infectious diseases, seven of these also focus on MCH concerns, while the remaining one addresses maternal health, but not child health. Specific concerns include a high burden of diabetes (5), a high burden of hypertension (5), a high burden of addiction to alcohol, drugs, and tobacco (2), mental health issues (2), a high burden of coronary heart disease (1), problems related to elderly fragility (1), a high burden of obesity (1), and uterine, breast, and fibroid cancers (1).

Additional areas that P4P schemes target include low participation of communities (2), weaknesses in health systems management (2), high stigma and low awareness of mental health issues (1), STIs (1), poor prevention activities within primary care (1), and a lack of safe water and sanitation (1).

[11] Excluding immunization coverage

3.4 WHO IS OR WILL BE RESPONSIBLE FOR P4P SCHEME IMPLEMENTATION?

It is notable that among those responses included in analysis, P4P scheme implementers are primarily developing country actors. In 13 of the 20 cases analyzed, responses suggest that the MOH has a key role in implementation, sometimes in conjunction with national health insurance programs (i.e., National Insurance Program in Belize or PhilHealth[12] in the Philippines) or other public bodies (such as the National Coordinating Agency for Population and Development, NCAPD, a semi-autonomous government agency, in Kenya[13]). NGOs are responsible for implementing P4P schemes in six cases (Bangladesh, Burundi, Cambodia, the DRC, Kenya, and Rwanda) sometimes in conjunction with the MOH or other government agencies, while only one scheme included in analysis (Brazil) is implemented by the private commercial sector. Responses indicate that international partners are supportive of P4P scheme planning efforts in at least six of the 20 countries, namely Bangladesh (USAID), Benin (World Bank), Burundi (World Bank), Ghana (USAID), Honduras (USAID), and Zambia (World Bank) and may play a supportive role in future implementation during pilot and/or scale-up phases.

In quite a few cases it is not apparent who the actual P4P scheme implementer is, as the survey respondent does not always make this clear. This is the result of a survey design weakness – respondents were required to provide details about themselves, including which organization they work for, but, in some cases, it is not obvious whether this organization is also responsible for implementing the P4P scheme or whether, instead, the respondent is writing about a scheme s/he is familiar with, but the implementation of which s/he is not actively engaged in.

3.5 WHAT CAN BE SAID ABOUT P4P "STAGE OF IMPLEMENTATION"? ARE SCHEMES MOSTLY STILL BEING DESIGNED? PILOTED? HOW MANY ARE ALREADY BEING IMPLEMENTED AND SCALED UP?

Of the 20 schemes described in this analysis, four are in the early planning stages, four have a pilot program currently underway, and 12 are in different stages of implementation. Seven of the 20 respondents mentioned the population size covered by the planned or ongoing scheme – these are highlighted below in Table 4.

[12] http://www.philhealth.gov.ph/about_us/index.htm.
[13] http://www.ncapd-ke.org/.

TABLE 4: P4P SCHEME IMPLEMENTATION STAGE AND POPULATION COVERAGE

Country (implementer type)	Stage of P4P scheme implementation	Population size (already or to be) covered by scheme	Population covered as a % of country total population*
Benin (MOH)	Planned pilot	~ 1.6 million	~ 20%
Brazil (private)	Implementing	~ 100,000	~ 0.05%
DRC (NGO)	Implementing	~ 500,000	~ 0.76%
DRC (MOH)	Ongoing pilot in 5 health zones	~ 780,000	~ 1.2%
Honduras (MOH)	Implementing	~ 500,000	~ 6.7%
Kenya (MOH)	Ongoing pilot	~ 650,000-1 million	~ 1.76-2.71%
Zambia (MOH)	Ongoing pilot in 9 districts	~ 1.5 million	~ 13.1%

*: http://en.wikipedia.org/wiki/List_of_African_countries_by_population (for African countries), http://en.wikipedia.org/wiki/List_of_South_American_countries_by_population_density for Brazil, and http://en.wikipedia.org/wiki/Central_America for Honduras.

3.6 WHAT INCENTIVES ARE P4P SCHEMES USING? WHO ARE THEY FOR? WHAT ACTION, BEHAVIOR, OR OUTCOME IS THEIR RECEIPT TIED TO?

Responses indicate that all 20 P4P schemes reviewed are using or plan to use financial incentives, targeting health care providers, health facilities (clinics or hospitals), and/or patients. Financial incentives for health workers are usually in the form of direct payment but they can also be a form of indirect payment (such as payment of travel, registration fees, and per diem for health workers to attend scientific conferences/workshops etc.). In one case in Kenya, communities get transport refunds and material incentives such as bags, pens, seeds for planting, and food supplements.

In most cases, receipt of the financial incentive is dependent on health care provider, provider team, or health clinic achievement of pre-defined targets. Targets seem to always be utilization measures (see examples in Table 5 below). It is encouraging to note that one ongoing NGO scheme (Burundi) currently includes a bonus tied to quality of care and two of the schemes currently in the planning stage (the MOH in both Benin and Burundi) are intending to emphasize quality measures.

TABLE 5: EXAMPLES OF WHO HAS TO DO WHAT TO RECEIVE THE PAYMENT

Health care providers (clinics, facilities, health teams, or individual providers) most commonly receive the financial incentive when….

- They reach or exceed pre-defined (usually utilization) targets
- Poor patients are identified and brought into the clinic or patients enroll in a given program
- Patients return for visits

4. CONCLUSIONS

Analysis of these 20 survey responses points toward a handful of key findings. First of all, maternal and child health is the dominant focus. Additionally, while sometime donor-supported, P4P schemes seem to be primarily led by developing country actors such as ministries and local NGOs. From responses analyzed, it appears that incentives being used in P4P schemes are primarily financial, as opposed to in-kind rewards, and these incentives tend to be directed to providers, as opposed to consumers of health services. Finally, current P4P scheme targets most often are for service utilization, but there is interest in moving toward targets to improve quality.

5. NEXT STEPS

As previously mentioned, the team selected eight responses to receive the promised reward using the criteria listed in Annex D. Reward recipients will each receive US $200 and support from the Health Systems 20/20 team to develop a solid case study on their P4P scheme. These eight case studies, to be produced by the team in conjunction with country counterparts, will include more detail than the current "snapshot summaries" (located in Annex E). A number of other responses that did not qualify for the reward will also be contacted to explore survey respondent interest in developing a comprehensive case study with our team. We anticipate about 15-20 detailed case studies will be developed in total.

Health Systems 20/20 team support for case study development will involve an initial phone interview and back and forth input via email and phone until a more detailed P4P "story" is fleshed out and written up. The team has developed an interview guide to ensure that interview data are collected in a standardized way to facilitate later analysis. Case studies will be finalized in late 2009 and posted to the Health Systems 20/20 web site.

The following products will be developed to share P4P lessons, innovations, and good practices:

- This report, the (15-20) detailed case studies, and practical materials such as P4P contract examples, indicators, validation approaches, and evaluation methods, will be posted online.
- A series of policy-oriented papers aimed at various communities will be developed in early 2010. For example, we anticipate writing brief papers for child health, maternal health, and family planning audiences. We may also develop papers that cover what is happening in P4P in regions of the world. We anticipate that other ideas that have potential to add value to policy and programming will become clearer when we obtain more information that fills in gaps through case study development.
- Additionally, the team will explore publication opportunities for an article in a peer reviewed global health journal summarizing key findings from the eight case studies.
- We will explore hosting a panel at the Countdown to the MDG meeting in September 2010 that will bring together developing country leaders of promising P4P schemes. As a follow-on to this event, we hope to facilitate a workshop with these P4P pioneers and others engaged in P4P in developing countries to facilitate sharing, learning, and networking.

ANNEX A: SURVEY PROCESS

The online survey was posted to the Health Systems 20/20 web site on April 21, 2009. A description of the survey and a link leading the reader to complete it were posted on Health Systems 20/20's main page and on its health financing/P4P page.

Additionally, announcements about the survey (including a link) were posted to the following listservs:

- Health Systems 20/20 contact list
- Abt email list
- Health Systems Action Network (HSAN) lists
- White Ribbon Alliance
- E-drug (e-drug@healthnet.org)
- E-med (e-med@healthnet.org)
- E-farmacos (e-farmacos@healthnet.org)
- E-lek
- Afro-nets (afro-nets@healthnet.org)
- Sea-Aids (sea-aids@eforums.healthdev.org)
- Af-aids (af-aids@eforums.healthdev.org)
- H4d-net (hr4d-net@dgroups.org)
- Catalytic Initiative (CIDA/UNICEF)
- Equidad (via PAHO) (http://listserv.paho.org/Archives/equidad.html)
- Scidevnet
- CORE group
- PMNCH group
- Global Health Council
- Kaiser Network
- RHINO Network
- World Bank Health Population Nutrition Network

ANNEX B: SAMPLE SURVEY

Health Systems 20/20 Pay for Performance Survey

1. Demographic Information

1. Demographic Information

Name, first and last

Organization:

Address 1:

Address 2:

City/Town:

State/Province:

ZIP/Postal Code:

Country:

Email Address:

Phone Number:

2. What is your position at your organization?

3. How would you classify your organization?

- ☐ Ministry of Health
- ☐ Local Health Authority
- ☐ Other Government / public institution
- ☐ Faith-based Organization / mission facility
- ☐ Donor or international technical agency
- ☐ Provider of technical assistance
- ☐ Academic institution
- ☐ NGO
- ☐ Private Association or Entity
- ☐ Other (please specify)

Page 1

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2. Description of the P4P Intervention(s)

4. What area of health is the performance-based incentive program targeting? (Check all that apply)

- ☐ Maternal health
- ☐ Reproductive Health / Family Planning
- ☐ Child health
- ☐ Tuberculosis
- ☐ HIV/AIDS
- ☐ Malaria
- ☐ Safe water & sanitation
- ☐ Chronic conditions
- ☐ Immunization
- ☐ Nutrition
- ☐ Other (please describe)

5. What stimulated decision-makers to introduce P4P? (check all that apply)

- ☐ Developed in-country as a potential solution to quality or performance problems
- ☐ Learning from other pilots/programs in your country that used performance incentives with good results
- ☐ Participation in a workshop
- ☐ Idea from a donor
- ☐ Promise of funding from a donor
- ☐ Other (please describe)

For Questions 6-9, please complete only those questions relevant to the P4P program you are describing

Health Systems 20/20 Pay for Performance Survey

6. What are the specific health problem(s) that the P4P program is trying to address concerning high maternal and newborn mortality rates? (Please select all that are relevant)

- ☐ Malnutrition
- ☐ Inadequate utilization of antenatal care
- ☐ Low contraceptive use
- ☐ Low rate of delivery with skilled attendant
- ☐ Low coverage of ARV prophylaxis among pregnant women
- ☐ Poor quality of delivery care
- ☐ Low postnatal care use
- ☐ Other (please describe)

7. What are the specific health problem(s) that the P4P program is trying to address concerning high child mortality rates? (Please select all that are relevant)

- ☐ High malnutrition / stunting
- ☐ Low DPT3 immunization coverage
- ☐ High morbidity from diarrhea
- ☐ High morbidity from malaria
- ☐ High morbidity from respiratory infections
- ☐ Other (please describe)

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8. What are the specific health problem(s) that the P4P program is trying to address concerning high mortality rates from infectious disease? (Please select all that are relevant)

- ☐ Low TB case detection rate
- ☐ Low TB treatment completion rate
- ☐ Low knowledge of HIV status
- ☐ Low adherence to ART
- ☐ Inadequate use of anti-malarial bednets
- ☐ Underuse of anti-malarials to treat malaria
- ☐ Other (please describe)

9. What are the specific health problem(s) that the P4P program is trying to address concerning high burden of non-infectious chronic conditions? (Please select all that are relevant)

- ☐ High burden of diabetes
- ☐ High burden of hypertension
- ☐ High burden of obesity
- ☐ High burden of addiction to alcohol, drugs, tobacco
- ☐ Other (please describe)

10. What is/are the incentive(s) linked to results and who is the recipient whose behavior must change to receive the performance payments? Are the rewards monetary or material? Who receives them? (Please reference the picture below for examples).

Health Systems 20/20 Pay for Performance Survey

3. P4P Intervention Design

11. Please list indicators used and how they are measured, list up to 10 examples. In each field please list how they are reported and the source of the information.
(1. #1 indicator,#2 way in which it is measured)

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

12. Is payment (monetary or material) based on attainment of targets? (Example: Is it specified that a facility must provide DPT3 to 80% of children under 1 in the geographic region before receiving a performance payment?).

☐ No.

☐ Yes. If yes, please describe how the targets are established.

13. Please describe the payment rules or formulas used (or rules that determine when material goods are earned).

14. Which actors/stakeholders were responsible for and involved in designing the P4P intervention?

15. Were other indicators considered in the design phase that were not chosen for implementation? Please explain the reasons that each indicator was not selected.

16. Was the P4P intervention pilot-tested? If so, please briefly describe this process, and pilot results and any resulting changes made to intervention design and the reasons why the changes were made.

17. What is the size of the population that receives health services in the region covered by the P4P intervention? Please describe any plans to expand coverage if there are any.

Health Systems 20/20 Pay for Performance Survey

4. Financing and management of the P4P intervention

18. What are the sources of funds for the P4P intervention?

19. Through what period is financing secured?

20. How will financing be obtained to continue the intervention?

21. Please describe how the following functions are managed, what entity has responsibility for each, and how the functions link:

Selecting recipients (to receive payment/goods)

Designing contracts or performance agreements

Negotiating contract terms and finalizing contracts

Monitoring attainment of performance targets

Validating results (detecting and deterring potential falsification/fraud)

Reporting validated results to trigger payment

Transferring payment and/or material goods.

22. Please describe the staffing and reporting relationships within entities that administer and manage the P4P program.

23. Challenges: Please discuss challenges and lessons learned about administering P4P.

24. Is the effectiveness of the P4P intervention currently being evaluated or are there plans to evaluate the effectiveness of the P4P intervention? If so, please describe how the evaluation process works or is expected to work.

Health Systems 20/20 Pay for Performance Survey

5. Findings from implementation of the P4P intervention

25. Please describe any results to date that are attributed to use of the P4P intervention. Explain why you/others feel these results are attributable to use of P4Ps and not any other factor(s).

26. Were any results surprising or unintended? If so, please describe briefly.

Health Systems 20/20 Pay for Performance Survey

6. General

27. Are there any overall problems, challenges or risks that have come up as part of intervention implementation? Please describe.

28. Would you encourage scale-up of the intervention within your country or replication in other countries? Please explain why or why not?

29. If further external assistance in pursuing this work could be obtained, what kind of assistance would you seek/recommend?

30. Did P4P implementers (or will they) receive any technical assistance regarding intervention design, implementation, evaluation? If so, from whom?

31. Please report on tools, evaluations, and other materials used to design, implement, or evaluate your P4P program. Alternatively, please send them to alixbeith@broadbranch.org

32. Please share any additional comments you may have:

ANNEX C: USAID MCH PRIORITY COUNTRIES

Africa	Asia	Latin America and the Caribbean	Europe and Eurasia
Benin	Afghanistan	Bolivia	Azerbaijan
DR Congo	Bangladesh	Guatemala	
Ethiopia	Cambodia	Haiti	
Ghana	India		
Kenya	Indonesia		
Liberia	Nepal		
Madagascar	Pakistan		
Malawi	Philippines		
Mali	Tajikistan		
Mozambique			
Nigeria			
Rwanda			
Senegal			
Sudan			
Tanzania			
Uganda			
Zambia			

ANNEX D: SCORING CRITERIA

EVALUATION OF SURVEY RESPONSES

Step 1: In or Out?

The first questions determine whether this response can be considered for an award (one of the eight). If any answer to the following is "No", then the response cannot be considered:

1. Is the survey complete? Yes/No
2. Is the survey respondent from a developing country? Yes/No
3. Does the described scheme fit the definition we are using? Is it relevant? Yes/No

Definition: *P4P initiatives transfer money or material goods to either providers or recipients of health services IF they take actions to improve health, increase utilization, or improve quality of health services.*

Note: Incentives linked to increasing cost recovery (e.g., collection of user fees) would not be included in this definition. An RTI International-led project to increase services for the poor in Bangladesh is a very interesting, but rewards are not based on whether priority services are used, but rather just on cost recovery.

Step 2: Score

	Maximum Points	Assigned score
Performance problems well defined	5	
Recipients clear	5	
Indicators: Measure of performance that is being rewarded is clear (e.g. what are the indicators, is there a reward for reaching a target, a reward for each service provided)	15	
Incentive formula is clear – it is possible to understand the rules for the performance award	15	
Source of information: Where information is generated to report results and how it flows is clear	10	
Verification: How information that is linked to payment is verified/validated is clear	5	
Management and funding: Management arrangements and source of funds is clear	10	
Evidence: Results are included and are convincing	10	
Challenges and lessons learned include "grist" for an interesting case study	15	
Is an *MCH priority country*	10	
TOTAL	100	

ANNEX E: SUMMARIES OF 20 RESPONSES ANALYZED

1. ARMENIA (49)

Organization description: Implementer of USAID's Primary Health Care (PHC) Reform Project

Health problem(s) addressed by the P4P scheme:

Maternal health – Inadequate utilization of antenatal care

Child health – Low rates for full immunization coverage of children at age 24 months (this according to National Immunization calendar)

Non-communicable diseases – High burden of diabetes, high burden of hypertension, high burden of coronary heart disease

Recipient(s) of the incentive (e.g., mothers, families, community health workers, facilities, etc.):

The scheme was designed to establish incentives for primary health care providers such as district physicians, district pediatricians, and family doctors. Specialists in outpatient settings were beyond the experiment.

Workings of the P4P mechanism: what incentive is provided, when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

In this scheme, fixed basic salaries for providers were supplemented by bonuses paid for high performance according to the set of indicators and formal procedures of monitoring and assessment. Scheme assessments were done quarterly and a list of eight performance indicators were used to measure performance:

1. Population enrollment indicator within the framework of free choice of physician for pilot sites. This indicator was designed to encourage physicians to increase their enrollment population. The actual number of enrolled people was compared with the statistical size of a catchment area ("assigned population"). The scale of this ratio was established. If the indicator was under 60%, no unit was given to the facility. If it varied between 61-80% - 0.1 unit for each 10%. If between 81-100% - 0.2 units to each 5%. Maximum unit was 1.
2. Number of visits to PHC physicians by population above age 18. This indicator was selected to encourage the workload of physicians. Number of visits was related to the catchment area population. The scale of units was set.
3. Same as (2) for population under age 18.
4. Indicator of early diagnosis of hypertension for population of 3-18 years of age.
5. Same as (4) for adults.

6. Number of preventive visits of patients under 1 year of age, during which all preventive examinations (screening) were made to reveal PHC-sensitive diseases.
7. Immunization rate for children.
8. Indicator of PHC physicians' participation in periodic analysis of medical charts.

For most indicators, standard values were set. Reaching the target or exceeding it was the basis for receiving a bonus. A rates scale was developed for each indicator. The bonuses for the first and second indicator were based totally on the rates scale. Facilities received additional payment according to the actual number of visits and enrolled population compared to the assigned population. Inside the facilities, not all indicators were used for the bonus payments to staff.

Selection of indicators was done respectively after the completion of the reporting period. Participants didn't know which indicators were used for performance assessment of the particular month. The incentive system was designed to focus attention to the entire list of indicators, thereby avoiding overestimation of some of them. The incentive fund was allocated between pilot sites based on unit cost estimated for a given accounting period. The total amount of units for all indicators was calculated; this total was multiplied by the number of pilot sites to determine the maximum number of units. Then a quarterly incentive fund was divided by the maximum number of units to receive the cost of one unit. Afterwards, for each pilot site, the number of accumulated units was multiplied by the unit cost to receive the specific incentive fund for a given pilot site.

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

The P4P scheme was designed by the Ministry of Health, State Health Agency (paying agency), primary care representatives, and donor project representatives. It was introduced after a study tour visit to the UK to learn about the National Health Service performance-based financing system.

Scheme management and funding:

According to government decree, an annual incentive fund was formed for performance-based payment to pilot outpatient settings through the state budget. It accumulated around 0.5% of all PHC state ordered program funding. This fund was divided into quarterly parts – with respectively 15%, 25%, 25% and 35% allocated during quarters of the year.

Most functions of the scheme are managed by the state health agency (e.g. selecting recipients, designing contracts, negotiating contract terms, monitoring attainment of targets, validating results, reporting results and transferring payment). Results are reported using an automated information system (MIDAS-3).

Scheme evaluation and evidence/results of P4P impact (if any available)

Armenia will implement a nationwide intervention in 2010. No results are available yet.

What next steps are anticipated for the P4P scheme?

Nationwide scale-up in 2010.

Key challenges and lessons learned:

Weak information systems at the PHC facilities level and collection of valid/reliable data proved to be challenges during the pilot.

Overall/additional thoughts:

Further technical assistance could be used for developing standards for care, undertaking a cost-effectiveness analysis, updating indicators, and performing project impact evaluation.

2. BANGLADESH

Organization description: RTI International

Health problem(s) addressed by the P4P scheme:

Cost recovery of NGO health clinics and the number of poor they serve.

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

User fee (monetary) reimbursements are provided to the clinic on behalf of a number of poor patients who receive services free of charge. In addition, cost recovery incentives (cash) are provided as a reward to health providers and NGOs who exceed target cost recovery rates.

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

User fee reimbursement is based on the actual number of poor patients served by the clinics. A clinic can serve as many of the poor patients as it can identify and recruit, and be awarded for each poor patient served. The cash incentive to the providers and NGO organizations is linked to the improvement of their cost recovery rates. The amount of cash incentive is determined by the extra revenue generated by the clinics when the cost recovery rate exceeds the previous period.

For each non-paying patient served, NGOs are reimbursed the user fee from a health equity fund (HEF). The amount they are reimbursed is equal to the amount regular patients pay for a specific service, therefore the reimbursement will differ by service and by NGO. When a clinic's actual revenue exceeded their target, the extra revenue generated is used in two ways to provide monetary incentives for NGOs and their workers: 1.25 percent is used for providers' bonuses, distributed by the NGOs to all providers working at the clinic, according to their contributions to the efforts. 2.25 percent is given to the NGO for use in supporting its own initiatives, such as addressing governance issues, improving institutional and management capacity, and supporting networking activities, at the discretion of the NGO's board. The remaining 50 percent of the extra revenues are channeled to the program-wide health equity fund.

Indicator	Source
Number of poor patients served (number of patients who used a health benefit card that entitled them to receive free services)	Patient registration book maintained by all clinics – the clinics report this data quarterly
Cost recovery rate (total revenue of the clinic as a percentage of the total expenditure of the clinic)	Finance report maintained by all clinics – the clinics report this data quarterly

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

The NGO Service Delivery Program (NSDP) delivered an Essential Service Package (ESP) through an umbrella of NGOs in Bangladesh during the period of 2002–2007. The network, funded by the U.S. Agency for International Development (USAID), included over 30 NGOs and operates 320 static clinics and 8,000 satellite clinics, and covers 20 million people. To increase the number of patients, especially among the poor, and improve financial sustainability, NSDP introduced several interventions that started in April 2004. This intervention strategy created a safety net for the poorest segment of society by

providing them with a health benefit card that entitles them to free services. NSDP also began helping the NGOs revise their service charges according to local demand and to improve cost recovery.

In March 2005, NSDP piloted a performance-based incentive scheme to increase the number of poor patients while also increasing revenues. Before introducing performance-based reimbursement, any extra revenue generated from user fees went to a reserve fund that the NGOs could not easily use. Neither the NGOs nor their individual clinics benefited from increased program revenues, and therefore, had no impetus to generate more revenue. In addition, NGOs and clinics were faced with the apparently conflicting objectives of serving the poor and improving cost recovery. When an NGO or a clinic tried to serve more patients who could not afford to pay, it ran the risk of sacrificing revenue and not improving cost recovery. Given the importance of cost recovery in the NSDP program, it was possible that some NGOs and clinics were more interested in serving the health needs of paying patients than those of their non-paying poor patients. Putting the burden of paying for the poor on NGOs and their clinics provides no incentive for them to actively and enthusiastically recruit and serve the poor.

NSDP and all NGOs were involved in designing the P4P intervention. At the very beginning, NSDP staff and NGO representatives discussed alternative schemes using incentives to improve performance; they reached a consensus on the most appropriate one. All the NGOs that participated in the intervention received training on how the scheme works and on how the indicators are monitored and reported.

A pilot study was conducted with an element of operations research to test the effectiveness of this incentive strategy. The effectiveness of this scheme was measured by the impact on the two performance indicators: (1) the number of poor patients served and (2) the cost recovery rate. The study collected data from four NGOs (70 clinics) using the new reimbursement scheme, and three NGOs (39 clinics) served as a control. The rate of increase in cost recovery at intervention NGOs after six months of implementation was 35 percent; in the control NGOs, it was 17 percent. The rate of increase in cost recovery, therefore, is twice as large for the intervention group. The impact of the incentives on NGOs' ability to serve the poor was also compared between the intervention NGOs and the control NGOs. The rate of increase in the number of non-paying patients at the intervention NGOs was 41 percent over the six-month study. The number of non-paying patients in the control group decreased 20 percent. Further statistic analyses confirmed the differences between the two groups for both the cost recovery rate and the number of the poor served. The simultaneous improvements provided evidence that with proper incentives to the NGOs and their staff, the conflicts between cost recovery and serving the poorest customers can be avoided or alleviated. In the pilot study, half of the extra revenue generated by the higher cost recovery rates of the clinics was distributed to NGOs and their health providers to reward their performance. The size of the bonus awarded to each NGO and each health provider depended on their respective performance. The other half of the extra revenue was transferred to a health equity fund and serves as the revolving fund to support services for patients who cannot pay. Most of the clinics contributed to the HEF; a few needed funds from the HEF to cover user fees for non-paying patients. About 3 million people were covered in the pilot testing areas, and about 14 million people were covered in the scaling-up stage of the intervention.

NSDP provided all necessary technical assistance, including design, consensus building, training, implementation, and evaluation, internally.

Scheme management and funding:

Incentives came out of extra revenues generated by NGO clinics. The results of the pilot study suggest that the performance-based incentive can be self-sustaining. Contributions to the HEF from clinic revenues can cover most of the user fee payments to NGOs.

The performance-based incentive scheme was administered and managed by the Health System and Financing Unit of NSDP. This unit received performance indicators from the management information system Unit and the Finance Unit of the project, calculated the incentives entitled by NGO clinics, and notified the Finance Unit to make the incentive payments. NSDP was responsible for selecting recipients (to receive payment/goods). Existing contracts were modified jointly by NSDP and NGOs, and NDSP monitored and validated performance through routine contacts with participating NGOs and clinics (including review of clinic records). NSDP was also responsible for transferring the payments to participating NGOs based on the performance data.

Scheme evaluation and evidence/results of P4P impact (if any available)

In July 2006, the Bangladesh P4P was scaled-up to 14 NGOs (seven rural and seven urban), representing 198 clinics. As was true in the pilot study, assessment of earnings showed that the P4P scheme increased the number of non-paying patients served and increased cost recovery rates in most the clinics. Out of 198 clinics, 167 (84 percent) are eligible for provider bonus payments. The highest bonus earned by a provider was 2,075.15 Taka (about $30), and the average was 366.27 Taka (about $5). Based on comparisons between the intervention group and the control group, the difference is significant enough to suggest that the results are attributable to the introduction of P4P.

Evidence showed that the P4P scheme motivated NGOs and their workers and allowed them to simultaneously serve more non-paying poor patients and to increase cost recovery. As a result, at no additional cost to NSDP, NGO productivity was raised, the number of poorest patients served increased, and the cost-recovery rate was improved. The scheme turned static cash reserves into dynamic and productive financial assets.

What next steps are anticipated for the P4P scheme?

Key challenges and lessons learned:

For the performance-based incentive model to work, all or at least most of the following critical elements must exist in an enabling environment:

- Commitment from the policymakers/project managers to improve program efficiency and service quality.
- Commitment from policymakers to improve access to services for the poor and from the government to make systematic efforts to identify the poor. Initial funds to support establishing and maintaining an HEF must be available.
- Providers who are experienced in recruiting new customers and adjusting user fees. Otherwise, training should be provided to them.
- Incentives must be allowed to be given to service providers for improved performance. A program or project unit that is capable of monitoring and evaluating the determination and distribution of all reimbursements, including user fee reimbursements and bonus allocation.

The Bangladesh performance-based incentive model can potentially be applied to other country settings where the existing public health centers and NGO clinics seek to improve program performance. It is most useful in situations where the existing program is stagnating and needs a stimulus to become more efficient and more equitable. The Bangladesh performance-based incentive model is very flexible when applied to other settings. The rules of the model can be easily adjusted and the parameter values reset in accordance with the country conditions and priorities. In India and Nepal, where the public health services are universally free but of low quality, the Bangladesh performance-based incentive model is an alternative financing approach that will improve service quality and attract more customers. The Bangladesh performance-based incentive model offers incentives to the providers to improve the quality of services to attract customers.

3. BELIZE

Organization description: Ministry of Health (MOH) and National Health Insurance (NHI) program

Health problem(s) addressed by the P4P scheme:

The scheme seeks to strengthen prevention activities within primary care. In particular it targets low postnatal care use and a high burden of both diabetes and hypertension.

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

A financial incentive is received by health institutions (centers or hospitals).

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

The P4P scheme is run by the NHI program. Incentives are linked to indicators that support the delivery of care rather than health outcomes. Incentives are first weighted according to three core categories (productivity, quality, and efficiency) and then further as subcategories of these three (for example, a primary health care team must attend to no less than 28 patients and no more than 36 within a given eight hour period). Targets that must be reached in order for the center/hospital to receive the incentive payment are set by the MOH and NHI.

Indicators used in determining the amount of the financial incentive include:

- Productivity per GP team/day (reported via database exported to the NHI by the clinic/hospital)
- Rational drug usage (drugs/encounter) (reported via database exported to the NHI by the clinic/hospital)
- Rational imaging usage (tests/encounter) (reported via database exported to the NHI by the clinic/hospital)
- Rational laboratory usage (tests/encounter) (reported via database exported to the NHI by the clinic/hospital)
- Completeness of encounter forms/patients on roster (reported via database exported to the NHI by the clinic/hospital)
- Patient satisfaction: survey (a bi-annual survey is implemented by the NHI)
- Medical records compliance; (actual random medical record audits)
- Unreported encounters activities (reported via database exported to the NHI by the clinic/hospital)
- Data entry errors (reported via database exported to the NHI by the clinic/hospital)

As mentioned above, each indicator is weighted. In each given month, if an indicator is not fully achieved, then the proportional weight is deducted from the clinic's total potential payment for that month. Total potential payment is a per capita allotment multiplied by the number of people registered.

The scheme is relatively new (four years in some places) and so more indicators are to be implemented progressively.

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

The P4P scheme was developed in conjunction with consultants as a potential solution to quality of care and performance problems, and as a mechanism to trigger more efficient resource planning. Other key stakeholders involved in design include: the MOH, the NHI, and the Belize Medical and Dental Association. Technical assistance in design was received as part of the Belize Multilateral Investment Fund from the Caribbean Development Bank and the Inter-American Development Bank.

In 2001, the scheme was piloted prior to full-scale introduction. As a result, some indicators were added to serve as checks and balances – specifically, a reward for referrals to support services had to be capped, as patients were being over-referred and which was driving up cost.

Scheme management and funding:

The NHI program has responsibility for all management functions – from selecting recipients, designing contracts/performance agreements, negotiating contract terms and finalizing contracts, monitoring attainment of performance targets, validating results, reporting validated results to trigger payment, and transferring payment. The MOH has a role in revising contracts/performance agreement designed by the NHI.

Key staff involved in the P4P scheme include the NHI general manager, the quality control officer, the resource officer, the primary care coordinator, the IT administrator, and an economist. All staff report to the NHI general manager who in turn reports to the CEO of the Social Security Board. The NHI acts as the service purchasing arm of the MOH.

Funding for the P4P scheme in the past has come from the Social Security Board (only during 2008), the MOH and general government revenues. There are concerns about future funding availability: options currently being considered include increasing the income tax, "sin taxes," and/or increasing social security deductions, etc.

Scheme evaluation and evidence/results of P4P impact (if any available)

There are plans to evaluate the scheme's impact since inception. Results to date that are attributed to the scheme include:

- The fact that the county district which previously had the highest maternal mortality rate had no maternal mortality deaths during the first two quarters of 2008. The additional resources that were required to ensure this outcome came from the NHI.
- Many people from the South Side of Belize City (the poorest in the city) had never visited a general practitioner. Once the NHI fund contracted additional clinics through the P4P scheme, many more individuals had access to a clinic and its services (pharmacy, lab, X-ray etc.). This is documented in "National Health Insurance Belize South Side Pilot Project Evaluation of Six Month Results."

What next steps are anticipated for the P4P scheme?

Currently the scheme covers 105,600 individuals. There are plans to expand the scheme further but this remains contingent on financial sustainability within the context of tight fiscal management measures which are presently being implemented. There is concern that the NHI will not continue.

However scheme expansion is desired: presently it covers 41 percent of the country as per geographic distribution. The rest of the population is clamoring to be registered with an NHI-paid clinic, as it often means a more complete service, better and more adequate physical installations, and greater access to once unaffordable medicines etc.

Key challenges and lessons learned:

The main challenge currently is that crucial political will is faltering – it is unclear whether the scheme will be able to continue.

A key lesson learned is that current indicators are not viewed as appropriate – instead they will be revised to reflect health outcomes. Subsequently, payment will be tied to actual improved health outcomes, not process measures.

Overall/additional thoughts:

If feasible, further desired external assistance would cover how to incorporate a conditional cash transfer program on the demand side of the equation and explore what the impact and implications of implementing such a program would be.

4. BENIN

Organization description: World Bank - donor or international technical agency

Health problem(s) addressed by the P4P scheme:

A P4P intervention was designed to address maternal health issues in Benin, specifically the poor quality and low utilization of delivery care by the poorest segment of the population.

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

Financial incentives will be provided to health workers, on the basis of achieved targets (quality and utilization of maternal care).

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

Payment of incentives is based on attainment of targets. However, the facility-specific targets still need to be defined. The indicators that will be used for the intervention are as follows:

- Case-fatality rate in maternal care centers
- Quality of antenatal care
- Rate of adequate referrals
- Availability of drugs and equipment
- Absenteeism of health workers

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

The P4P intervention was developed in country as a potential solution to quality or performance problems, based on other pilots/programs in the country that used performance incentives with good results.

MOH officials and union leaders were involved in the design of the P4P intervention. The pilot of the P4P intervention will begin next year. Approximately 1.6 million people receive health services in the region covered by the P4P intervention.

Scheme management and funding:

The P4P intervention is being funded by a Norway grant, the national budget, and the International Development Association (World Bank) for a period of three years. Out of the secured funding, 60 percent will go towards financial incentives for health workers while the rest will be for equipment and training. The weights for the various indicators have to be defined. Following the pilot, the national budget will be used to continue the intervention.

For the implementation of the intervention, the MOH will be responsible for selecting recipients (to receive payment/goods). The MOH at the regional level will design and negotiate the performance

contracts/agreements. A third party, paid by the World Bank, will monitor the attainment of performance targets, validate results, and report the validated results to trigger the payment. The MOH will transfer the payment to the individual health workers.

The staffing and reporting relationships within entities that administer and manage the P4P program are yet to be defined.

Scheme evaluation and evidence/results of P4P impact (if any available)

A full impact evaluation (with control groups) is planned, with baseline data collection scheduled to start in May 2009.

Overall/additional thoughts:

The P4P project in Benin still has to be implemented but it does have the potential to change the mindset of health workers in the country.

5. BRAZIL

Organization description: HMO-style private cooperative owned by 4,700 doctors that sells health plans

Health problem(s) addressed by the P4P scheme:

P4P scheme focuses on maternal health, child health, immunization, nutrition, chronic conditions. Also emergency, ICU, quality improvement within contracted hospitals (~ 40)

Maternal health: high (~ 80 percent) caesarian section rates

Child health: high infant mortality from respiratory infections

Chronic conditions: high burden of diabetes, hypertension, obesity, and addiction to alcohol, drugs and tobacco. The program also seeks to address problems related to elderly fragility.

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

Hospitals receive financial incentives to stimulate accreditation.

Doctors receive financial incentives for undertaking certain activities (well child care during the first year of life, normal labor instead of caesarian section, control of chronic conditions, such as diabetes, hypertension, asthma control, and high cholesterol.

Patients receive a financial incentive when they are screened for cancer, as they are not required to pay a co-payment.

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

Doctors receive an incentive when eligible patients are enrolled in the program. Each time a patient returns, doctors receive another incentive. Based on patient outcomes, doctors also receive an annual bonus.

Some examples of indicators used include the following: blood pressure must be less than 140/90 mmHg in 75 percent of the population covered by the program. Cholesterol LDL levels must be below 130 mgdl in 50 percent of the population. Natural labor rates should be greater than 25 percent of all births while glycated hemoglobin levels should be less than 7 percent in at least 35 percent of the population and no more than 33 percent of the population should have levels above 9 percent. Data to determine all indicators come from hospital electronic medical records.

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

The original P4P idea stemmed from participation in two international P4P summits and from learning about other pilots and programs that use performance-based incentives which have had good results. The P4P scheme was developed in country as a potential solution to quality/performance problems. Background documents used in development include materials from HEDIS, Kaiser Permanente, UK P4P program, CMS and IHA. The health plan company Unimed Belo Horizonte led design of the program,

with continuous involvement by doctors. The intervention was pilot-tested in clinics and hospitals before being expanded to other contracted hospitals. Currently the P4P program covers 100,000 clients.

Scheme management and funding:

Unimed-Belo Horizonte is responsible for management of the entire P4P program from selecting recipients, designing contracts/performance agreements, negotiating contract terms and finalizing contracts, monitoring attainment of performance targets, validating results, reporting validated results to trigger payment, and transferring payment.

Scheme evaluation and evidence/results of P4P impact (if any available)

Evaluation: The program is currently under review, specifically looking at reasons for non-adherence by both doctors and clients. Additionally, they are adopting internationally recognized indicators and incentives. A new electronic medical record system is also currently being implemented.

Evidence/results: Results are anticipated by the end of 2009.

What next steps are anticipated for the P4P scheme?

The program is currently under review. It is anticipated that, in one year, the program will be expanded to cover additional clients. Funds are secured annually; there is a specific line budget dedicated to the program. It is anticipated that the new program will diminish abusive and excessive use, alongside development of a comprehensive primary care program.

Key challenges and lessons learned:

- It is very important to know international experiences and to use recognized indicators
- Design is critical: poorly designed programs can lead to poor adherence
- Doctor outreach is important to understand the incentives required to result in behavior change: low incentives were not enough to motivate doctors

Overall/additional thoughts:

P4P is an excellent tool to improve quality. If the program could access further external assistance to pursue work in this area, they would use it to better design programs and determine how to better engage doctors and clients.

6. BURUNDI

Organization description: Ministry of Health

Health problem(s) addressed by the P4P scheme:

The P4P program has been proposed and accepted as the future standard of health care in Burundi. It does not yet exist in practice nor is it clear when it will become operational. At the moment there are several different pilots underway – piloted by NGOs and bilateral donors mostly. More pilots are planned to be implemented in the near future. The MOH is planning to study pilots and develop an integrated/harmonized model of the different approaches. To begin this process, a workshop was held in March 2009 to discuss the future institutional arrangements of a nationwide P4P scheme in Burundi. The workshop concluded with a "Declaration of Consensus" – setting out the beginnings of a nationwide P4P approach – agreed upon by government and donors. The Declaration only covers institutional arrangements – technical solutions such as definition of indicators/specific targets are still to be decided upon.

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

Health care providers will receive a financial incentive.

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

Most of this is still to be determined. However it is anticipated that a fee-for-service system for providers will be set up, where a portion of payment will take into account the quality of the service provided. It is not clear that receipt of services will be tied to performance.

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

Development of the scheme was stimulated by learning from other pilots/programs within Burundi that were using P4P with good results. Those most involved in the first stage of setting up an institutional framework for a nationwide extension and harmonization of P4P include the MOH, international donors and partners (in particular those already implementing or interested in implementing P4P), NGOs currently piloting P4P, other ministries (Finance, Travail – "work") and international experts and consultants.

Most of the partners/donors involved in P4P in Burundi are providing technical assistance to their own pilot projects, as well as to the MOH in its endeavor to extend P4P at the national level. Every partner has its own experts. Given that Burundi is close to Rwanda, most of these experts are involved in P4P projects there. Through IHP+ funding, the MOH has benefitted from the technical assistance of Bruno Meesen (Institute of Tropical Medicine, Antwerp) during the workshop that led to the "Declaration de Consensus."

Scheme management and funding:

The harmonized model, which, once fully developed and implemented, will cover the entire Burundian population of ~ 8 million, is mostly based on NGO pilot projects being implemented in Burundi since 2006, but it also presents some differences, in particular regarding the role of the MOH. One of the

perceived problems of the NGO projects is their detachment from the MOH in its role of supervision and guidance, while they are providing all basic services. This goes to the point where the NGOs themselves, through their Purchasing Agencies (Agence d'Achat de la Performance) are deciding which indicators to retain for their projects and thus setting the health priorities in the province where they operate. On the other hand, all actors recognize the need to maintain an independent structure in charge of verifying the indicators and agreeing on payment. The new proposed approach integrates elements of the already piloted NGO project, with a new institutional setting. This consists of:

- The proposed creation of "mixed" control agencies at the provincial level (composed by members of the local government, the local health bureau, the donor/NGO, and civil society) responsible for organizing the verification of indicators at the health care provider level
- A central payer (MOH/ Direction General des Resources, or Directorate for Resources) to which a local partner (donor/NGOs) is added in some provinces
- A system of "contracting in" (with internal control) for the central, provincial, and districts bureaus

Therefore, while the NGO approach is in place and has been evaluated, this new approach has not yet been tested.

Roles and responsibilities are anticipated as follows:

- All public and private health care providers and the MOH at central, provincial, and district levels are responsible for selecting recipients
- A Cellule National PBF, to be created at the central MOH level, will be responsible for designing contracts/performance agreements, for negotiating contract terms, and for finalizing contracts
- "Mixed composition" provincial control units, to be created, will be responsible for monitoring attainment of performance targets, for validating results (detecting and deterring potential falsification/fraud), and for reporting validated results to trigger payment while the
- MOH Directorate for Resources and any possible donor(s) involved at the provincial level will manage payment transfer

With regards to funding, in principle, the Burundi government (with Highly Indebted Poor Country funds) as well as with the future World Bank/IDA intervention will cover the costs of the "free health services" (now all services for children under five and birth/delivery. However, this package of health services will probably be revised to include other prevention and community level services). Other donors (and specifically the Belgian Technical Cooperation, the Swiss Cooperation, HSS/GAVI, the Italian Cooperation, the European Commission, and international NGOs) will target SOME provinces and cover other services or top up the fees for the "free"/basic package.

7. BURUNDI

Organization description: HealthNet TPO – an NGO in Bujumbura, Gitega

Health problem(s) addressed by the P4P scheme:

The P4P scheme is targeting many health areas:

- Maternal, reproductive, and newborn health: specifically malnutrition, inadequate utilization of antenatal care, low contraceptive use, low rates of delivery with a skilled attendant, low coverage of antiretroviral prophylaxis among pregnant women, poor quality of delivery care, low postnatal care use, low health service utilization, low participation of communities and weaknesses in health systems management
- Child health: specifically high malnutrition/stunting, low DPT3 immunization coverage, high morbidity from diarrhea and malaria, high morbidity from respiratory infections, and high neonatal mortality
- Infectious diseases: specifically low rates of TB case detection and TB treatment, low knowledge of HIV status, low adherence to antiretroviral treatment, inadequate use of antimalarial bednets, underuse of antimalarials to treat malaria
- Malaria: specifically
- Safe water and sanitation
- Immunization
- Nutrition
- Mental health (psychosis and epilepsy)
- STIs, health management, community involvement in health system management

Currently, the P4P scheme focuses primarily on maternal and child health problems. Over time chronic problems will be progressively included in the scheme.

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

Health facility and centers

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

A monetary subsidy is given to health facility on a monthly basis. The full amount received depends on number of cases/indicator (see below).

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

The scheme was developed in country as a potential solution to quality/performance problems. It was also introduced as there is considerable concern that the MDGs will not be met, unless present circumstances change considerably.

Principle participants in scheme design included: the Ministry of Health's steering committees at national and provincial levels, the provincial health management team, the district health management team, health facilities, communities represented by their health committee per health facility, local administration, and other main actors in health system at provincial level (e.g., churches). Technical assistance in the areas of intervention design, implementation, and evaluation was received from international partners (donors and NGOs).

P4P in Burundi started with the experience of HealthNet TPO and CORDAID as of November 2006. Currently the approach is being scaled-up with support from a number of different partners – from the European Union, GAVI, CTB, Suisse Cooperation, World Bank, etc. The experience of HealthNet TPO is very valuable therefore to the nationwide program planned for Burundi.

Scheme management and funding:

For each indicator, there is an agreement on subsidy amount per case which is multiplied with total number of cases seen during a month. Then, for all indicators, a sum of the total amount to be paid to the health unit is calculated. Each quarter, the quality of care is evaluated and the score obtained per health facility is multiplied by 10 percent which is a quality bonus. In this way, quality of care is taken into account.

Indicators are as follows:

- New consultation
- Third ANC visit
- Birth attended by qualified staff
- Child < 1 year old fully vaccinated
- Malnutrition case treated
- HIV case treated
- Mosquito net distributed
- TB case detected and correctly treated
- Case referred to hospital for senior care
- Psychosis or epilepsy case treated or referred for further care

The indicators listed above were chosen reflect the basic and complementary packages of care delivered by health centers and hospitals at the district level. Chronic disease and community-level indicators were not chosen because the intervention was very needed urgently at the health unit level for basic care which was not available due to the crisis.

Currently the different P4P schemes in Burundi cover the following populations:

- Kibuye district in Gitega province: 187,484 inhabitants (HealthNet TPO)
- Bubanza province: 348,188 inhabitants (CORDAID)
- Cankuzo province: 221,391 inhabitants (CORDAID)
- Extension already done to:
    - Ruyigi: 400,818 inhabitants (CORDAID/EU)
    - Rutana: 336,394 inhabitants (CORDAID/EU)
    - Karuzi: 433,061 inhabitants (CORDAID/EU)
    - Ngozi: 661,310 inhabitants (Cooperation Suisse)
    - District Ryansoro in Gitega province: 127,644 inhabitants (HealthNet TPO)
    - Makamba: 428,917 inhabitants (CORDAID/EU)
    - Rumonge district in Bururi province: 258,902 inhabitants (CORDAID)

The MOH determines which recipients will be supported by a given partner within a given province or district. Following a baseline study, the MOH and partners together collaborate to select the health unit which will be the recipient and the indicators that will be used. Some health facilities receive a main contract while others are subcontracted depending on the package of care that they provide.

Contracts are designed collaboratively between the National Steering Committee of the MOH, provincial health authorities, and partners. Health facilities, alongside the provincial steering committee and the provincial purchasing agency negotiate contract terms and finalize contracts. Each health unit presents a business plan on which negotiations are based. The provincial steering committee, provincial health authorities, and the provincial purchasing agency monitor attainment of performance targets. Monitoring of quality indicators is conducted monthly while community satisfaction is monitored quarterly. Evaluation of community and patient satisfaction takes place in conjunction with local associations in each area. Data and results area are validated by the provincial steering committee. After validation, the results are reported and passed to the purchasing agency for payment. The purchasing agency pays the health facility directly (via bank account).

The provincial Purchasing Agency has technical and financial staff with a medical doctor/public health at the head. The provincial steering committee is multi-sector with provincial administration at the head, and at health facilities with directors or head nurses as responsible. The responsible of each health facility makes a monthly summary which is passed to the provincial steering committee and then, after verification and validation, the results are passed to purchasing agency for payment.

P4P materials used by the scheme include: contract format, quality tool evaluation, community satisfaction tool, household assessment tools, format of monthly summary of health center, monthly reports of health facilities, and standards data collection tools used by the health units.

The Dutch Government and the European Union are the main donors supporting P4P efforts implemented by both HealthNet TPO and Cordaid. Others are increasingly involved: they include the Cooperation Suisse, GAVI, CTB, and, in the near future, the World Bank. The Burundian government is

starting to finance P4P in some areas. Financing is currently secured through 2010 or 2011 for some supports. There is clear government commitment to financial sustainability of the P4P scheme and considerable involvement of many partners including civilian organizations. A policy has been elaborated that will introduce P4P throughout the health system. An agreement by all partners on how to harmonize this approach has already been reached.

Scheme evaluation and evidence/results of P4P impact (if any available)

The effectiveness of the P4P scheme has been evaluated internally and externally. The MOH has a unit responsible for P4P monitoring/evaluation which evaluates scheme implementation on a quarterly basis. At the end of the first year, a global internal evaluation took place with the support of an international consultant and results were shared during a national conference on P4P. At the end of the second year, an external evaluation was undertaken by the Royal Tropical Institute of Amsterdam.

[Permanence of the services 24 hours a day and seven days a week because until now, there is not a system of guard during night in health centers where is not P4P. But in P4P area, this is a minimum condition to be guaranteed if a contract is established.]

As a result of P4P implementation:

- More health centers are engaged in planning – all health facilities engaged in P4P now have a habit of planning, as contract negotiation is based on the business plan of each health facility. This is not done in areas which lack P4P.
- More qualified health care workers are moving to P4P areas: the proportion of qualified staff is still increasing in P4P areas due to the incentives they can access in these areas. For example, the proportion of qualified staff in Kbuye district when P4P was starting was 35 percent against 80 percent compared to the norms.
- There is a high level of community involvement in the P4P areas – there is strong community participation in health management because health facilities are linked to the community and follow-up by the health committee is ensured by health staff. Feedback to health facilities from communities through community and patient satisfaction is evaluated each quarter.
- Higher scores on health indicators in P4P areas compared to non-P4P areas and when comparing with same areas prior to P4P implementation. Per indicator, there is an average increase of 50-60 percent compared to the period prior to P4P introduction.
- Faster decentralization in P4P catchment area.

What next steps are anticipated for the P4P scheme?

Key challenges and lessons learned:

Key challenges include:

- Gaps in minimum pre-conditions and standards must be resolved in order for health workers to perform.
- Decentralization in terms of devolution (transfer of responsibilities) instead of the actual deconcentration (delegation of tasks) is a major challenge for P4P success.

- Institutional, technical, and financial sustainability continue to be a big challenge for P4P as an approach.

Lack of equity between geographic areas covered by P4P approach - Absence of P4P at central and community level, P4P at community level needs to be institutionalized and financed presenting a challenge in the future. - Weakness in effective decentralization is a risk of P4P - Sustainability issue of P4P system even though government is contributing to P4P financing with partners

Lessons learned:

- The introduction of P4P is not easy and requires an effort focused on development and implementation of an institutional framework.
- In post-conflict countries, P4P can be helpful to improve a health system resulting in improvement in health indicators.
- Community participation is a key element of P4P success.

Overall/additional thoughts:

Scale-up is encouraged as different evaluations undertaken have shown a faster improvement in health indicators in P4P areas when compared with catchment areas that are not implementing P4P. P4P is therefore an instrumental strategy helpful to reaching MDGs.

Future technical assistance could be very helpful in:

- Designing a P4P institutional framework to guide the process of harmonization
- Introducing P4P according to the experiences from other countries
- Periodically updating P4P management tools (contracts, rules of actors, tool of progress evaluation, etc.
- Capacity building

P4P continues to be an approach of interest not only to stable countries but in fact is gaining even greater attention in the context of a post-conflict health system recovery. In short, it is a solution to reform a fragmented health system and needs to be introduced through an entire country's health system including at the community level.

8. CAMBODIA

Organization description: Action for Health, NGO

Health problem(s) addressed by the P4P scheme:

The P4P program in Cambodia aims to improve maternal health, reproductive health and family planning, child health, safe water and sanitation, and nutrition outcomes.

The specific health problems that are pervasive in Cambodia and those that are being addressed by the P4P program include:

- Malnutrition
- Inadequate utilization of antenatal care
- Low rate of delivery with skilled attendant
- Poor quality of delivery care
- Low postnatal care use
- High malnutrition/stunting
- High morbidity from diarrhea
- High morbidity from respiratory infections

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

Incentive payment is provided to both patients and healthcare providers.

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

The Health Equity Fund and Community Health Insurance provide incentive payments on both demand side and supply side. The P4P program has contracted with public health facilities for payments for service fees, lab, and hospital stay when the patients come to hospital for both inpatient and outpatient care.

Indicators and how measured:

1. Number of poor and poorest families identified, measured by pre- and post-identification by organization and community group
2. Number of poorest patients who came to contracted hospital as outpatient/inpatient, measured by staff of organization and health care providers by using checklist form and providing follow-up.
3. Increased number of poorest patients who have access to public health facilities, measured via service record and special survey
4. Number of poorest patients who changed their health seeking behaviors from traditional health facilities to public health facilities, measured through a special survey
5. Improved quality of health care and treatment, measured through a special survey

6. Increased bed occupation rate and outpatient department, measured through a special survey
7. Decreased mortality and morbidity among identified poorest families, measured by an annual survey and review

The incentive payment is based on the achievement of specific targets, including the number of identified patients attended at the hospital and treated. Monetary incentive is paid to health care providers after receiving targeted number of identified patients treated at the end of month or quarter.

Payment rule is based on service fee commonly surveyed by independent institution or participatory assessment.

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

Cambodia initiated a P4P program by learning from other pilots/programs in the country that used performance incentives and had good results. Further, there was a workshop that some stakeholders participated in, which allowed learning about how to design and implement a P4P program. Cambodia also had secured funding to implement and support this program.

The P4P program was first introduced by the MOH Health Equity Fund guidelines and a previous pilot project.

The pilot involved the following steps: Step 1. Conduct pre-identification of the poor and poorest families in the catchment areas. Step 2. Develop the service fee based on assessment or review the existing service fee. Step 3. Discuss the payment procedures. Step 4. Define the key indicators for measuring the performance and implementation. Step 5. Discuss with health care providers the contract and scope of work relationship. Step 6. Launching project by involving all relevant stakeholders including representation of poorest families. Step 7. Carry out implementation. Step 8. Do review and evaluation.

The number of people that were covered by the P4P pilot program included 20 percent of the poorest families in the catchment area. Then, after donor discussions, another 20 percent of the poorer families were covered (these "poor" families were determined through survey).

Scheme management and funding:

1. University Research Co., Belgian Technical Cooperation, Health Net International
2. Health Systems Strengthening Fund from the United Nations Population Fund, World Bank, and Asian Development Bank loan via MOH

Scheme evaluation and evidence/results of P4P impact (if any available)

There was a final evaluation conducted by an independent institution.

Findings include the following:

- Bed occupation rate increased rapidly from less than 40 percent to 80 percent or 90 percent by poorest families or covered by health equity fund and community health insurance
- Local authority appreciated the result of this project and strongly supported the project.

What next steps are anticipated for the P4P scheme?

There are plans to scale up the P4P scheme. Cambodia is planning to scale up nationwide (Action for Health Organization is implementing in 11 provinces of the 24 in the country).

Key challenges and lessons learned:

Some of the key challenges have been that there is huge demand from poorer families yet there is also lack of willingness of health care providers to participate in the scheme.

Other challenges include:

1. Pregnant women still deliver at home or outside public health facilities with unskilled midwives.
2. Behaviors of health care providers are still rigid and there is persistent discrimination against poor families.
3. Corruption still exists even though providers are being paid better.

Overall/additional thoughts:

1. Both technical and financial support is needed from independent consultants and donors to help Cambodia strengthen their P4P program.
2. Did P4P implementers (or will they) receive any technical assistance regarding intervention design, implementation, and evaluation? If so, from whom?

9. CAMBODIA

Organization description:

- Responder is freelance consultant
- She describes what she's learned from document review done several years ago in preparation for the Cambodia Strategic Health Plan

Health problem(s) addressed by the P4P scheme:

Maternal health

Tuberculosis

HIV/AIDS

Chronic conditions

Nutrition

Other - Health Equity Fund (HEF) provide financial and material support to poor patients and pays user fees to the hospital. Hospitals selected for the HEF implementation are selected if they achieve quality and performance standards

WHY P4P?

The P4P program was developed in country as a potential solution to quality or performance problems. The idea came from a donor.

The HEF was started because the user fees in the public hospitals had negative consequences on utilization of services by the poorest patients in Cambodia. After the impact evaluation of the P4P program, it was found that HEF improved the health status of the general public.

Health problems being addressed?

- None in particular – general health. Also:
- Low TB case detection rate
- Low TB treatment completion rate
- Low adherence to ART
- Underuse of antimalarials to treat malaria

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

HEF pays money for the transportation, food, and medicine to poor patients enabling them to access the health services. It also provides payments to service providers to cover the user fee costs for every poor patient who avail HEF and are treated in the public hospitals. User fees are retained in the hospital to supplement service provider salary and supply of the drugs.

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

Payment not based on attainment of targets – the HEF funds cover user fees.

The beneficiaries (poor patients) are selected based on interview by HEF volunteers or "pre-identification" of poor. Financial support is provided based on criteria of poor, medium poor, and very poor.

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

HEF standard operating procedures were designed by the MOH. An organization implements it in hospital with support from donor agencies. Major stakeholder in HEF in Cambodia are MOH, World Bank, BTC, URC, Health Unlimited, Healthnet InterAction, UNICEF, Action for Health, CFDS, Gret, and RHAC

HEF was piloted and evaluated previously. System of pre-identification of poor was introduced to select only very poor patients. The pilot was conducted in three provinces and in selected referral hospitals. They are now expanding it to all referral hospitals.

Scheme management and funding:

Major source of funding is a pooled fund from development partners: World Bank, UNICEF, ADB and DFID and other bilateral donors, USAID through URC, RHA, BTC, Health Net International, and Health Unlimited

Funding began in 2000. The government plans to scale the program up so it is assumed that funding is continuing.

- Selecting recipients (to receive payment/goods) – Pre- and post-identification of poor by implementing agencies and quality assessment of the service provider by the donor agencies
- Designing contracts or performance agreements - Donor agencies with service provider and implementing agencies
- Negotiating contract terms and finalizing contracts - Donor agencies
- Monitoring attainment of performance targets - Implementing agencies collect and submit the data to donor agencies every month, quarter
- Validating results (detecting and deterring potential falsification/fraud) - Donor agencies and implementing partner
- Reporting validated results to trigger payment - Donor agencies
- Transferring payment and/or material goods - HEF implementing agencies

Reporting requirements/lines:

HEF implementing agencies prepare report to donor agencies. The data reporting is done every month for some donors, which is time consuming. The administrative cost support is very low from the donor. The working environment in the Cambodian Hospital is not very good. With low salary and bad working environment, staff turnover is very high.

Scheme evaluation and evidence/results of P4P impact (if any available)

Evaluation has been done, commissioned by donor agencies. But it has not been widely disseminated. Generally, the health status in the intervention community has been improved. I think financial incentives increased access of the poor to hospital. It changed the health seeking behavior of the patient.

Changes in health seeking behavior were not an intended outcome of this P4P scheme. But actually poor patients and others are changing their health seeking behavior as they see some changes in quality of service in hospital and/or know the benefits of accessing earlier treatment.

The evaluation is done by the implementing agencies alone. However, it is recommended that donors design a participatory evaluation of the HEF, or provide assistance to doing the evaluation.

What next steps are anticipated for the P4P scheme?

n/a

Key challenges and lessons learned:

The attitude of the service providers is difficult to change. Even though the salary incentive is provided, the monetary compensation of the service providers is still low, because salaries are low. Donors also now try to issue contract through tender, which means low budget estimation by the NGOs to win the contract (and again, low salaries). Staff turnover in NGOs is very high due to low salaries and bad working environment, so institutional knowledge is lacking in these facilities.

Overall/additional thoughts:

HEF should be scaled up in the country and other countries as it increases access to health services for poor patients. This will change the health seeking behavior of the poor.

One recommendation is to increase support to administrative costs (from donors) and consider the hospital working environment. Design simple data collection system.

10. DEMOCRATIC REPUBLIC OF THE CONGO (DRC)

Organization description: Ministry of Health

Health problem(s) addressed by the P4P scheme:

The pay for performance scheme described aims to address the following health problems:

- Maternal health, reproductive health and family planning (malnutrition, inadequate utilization of antenatal care, low contraceptive use, low rate of delivery with skilled attendant, poor quality of delivery care, low postnatal care use)
- Child health (high malnutrition/stunting, low DPT3 immunization coverage, high morbidity from diarrhea, high morbidity from malaria, high morbidity from respiratory infections)
- Infectious disease (low TB case detection rate, low TB treatment completion rate, low knowledge of HIV status, low adherence to ART, inadequate use of antimalarial bednets, underuse of antimalarials to treat malaria)
- Chronic conditions (high burden of diabetes, high burden of hypertension)

Recipient(s) of the incentive:

A monetary incentive is given to the health care provider based on attainment of service targets (e.g., when 80 percent of children < 5 years in the catchment area are fully immunized).

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

Incentive amounts provided to health care providers are dependent on the coverage achieved. If the 100 percent of the planned target is achieved, then the payment will be X amount. If 80 percent of the target is achieved, the payment will be a lower amount. The following indicators and sources are used in this performance scheme.

Indicator	Source
Number of children 12 to 59 months who attended the Consultation Preschool (weighing, Vit A, and Mebendazole) during the month	Health Center Health Information System
Number of pregnant women who received at least 2 doses of TT + folic acid + iron	Health Center Health Information System
Number of women who made an antenatal visit during the month and received 3 tablets of the 2nd dose of sulfadoxine-pyrimethamine	Health Center or Hospital Health Information System
Total number of pregnant women who accepted serological testing voluntarily and have withdrawn their results	Health Center or Hospital Health Information System
Number of children seen during the month, aged 0 to 11 months at the time of the visit, who received all doses of antigen	Health Center Health Information System
Number of women who were seen for consultation birth desirable during the month, who were aged 15 to 49 years at the time of visit, and who have accepted a modern method of contraception	Health Center or Hospital Health Information System
Number of patients who presented to the curative consultation of the health center very landlocked in the health zone were sent to hospital with a reference document	Hospital Health Information System

Indicator	Source
Number of suspects confirmed TB+	Hospital Health Information System
Number detected high-risk pregnancies referred	Health Center or Hospital Health Information System
Number of births during the month in the presence of trained personnel	Health Center or Hospital Health Information System

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

The incentive scheme was designed based on lessons learned from other pilots/programs in the country that used performance incentives with good results as well as participation in a workshop. The specific P4P scheme was an idea from a donor. The incentive scheme was not piloted before implementation.

Scheme management and funding:

- Selecting recipients (to receive payment/goods): The design phase determined the intervention and control health zones. In the intervention health zone, services are evaluated and those who pass an evaluation are selected for P4P.
- Designing/negotiating and finalizing contracts: The Ministry of Public Health and the donor define the terms of the contract.
- Monitoring attainment of performance targets and validating results: The Ministry of Public Health and a delegate of the donor monitor and validate attainment of performance targets.
- Payment: The donor delegate is responsible for reporting validated results to trigger payment, and transferring payment to the service provider.

In the health zone, the management team, Equipe Cadre de la Zone de Santé (ECZS), in collaboration with the donor representative, manages the P4P program. The ECZS reports hierarchically to the provincial management team, Equipe Cadre Provinciale, which finally reports to the Provincial Health Ministry.

Funding is secured through 2010. Proposals for additional funding will be submitted to international donors.

Scheme evaluation and evidence/results of P4P impact (if any available)

The effectiveness of the P4P intervention is currently being evaluated. A higher utilization of curative services was attributed to P4P in health centers and hospitals where the system was introduced. An improvement in quality of health care and a higher level of motivation among providers was reported in intervention facilities, compared to facilities where the system was not introduced. STATA software and statistical tests were used to analyze results.

What next steps are anticipated for the P4P scheme?

Key challenges and lessons learned:

The funds that are mobilized for P4P are small amounts that cover only a small portion of the population (500,000 people). The greatest P4P challenge is eventual scale-up across the country. The quality of the

health information system helps to monitor the P4P scheme as all selected indicators are available through this system.

Consideration should be given to how to support reporting in hospitals and health centers that are contracted through the P4P scheme. Regarding scheme management, it is better to bring the purchasing agency which is responsible for performance monitoring close to the beneficiary services in order to reduce the cost of monitoring, which must be done with the support of the health zone management team or the provincial management team.

If an incentive system (materials, inputs) is not provided in control zones, there is a risk of patients in control zones "leaking" to intervention zones. In this case, there will be an increase in workload which must be compensated for by improved staff motivation. In the control zones, there may be a problem of staff motivation, particularly if they are aware of the intervention in other zones. The P4P program must be implemented nationally to give an opportunity to all service providers to access the same benefits.

If the health data collection system is not reliable, there is a risk of fraud in reporting indicators. In addition, there may be an additional cost if staff need to be recruited to collect data on admissions and new cases.

Overall/additional thoughts:

The intervention can be scaled up if all donors collaborate and harmonize the P4P interventions. The government is also considering disbursing public funds (state budget) through P4P. The P4P could be duplicated in other countries that accept it as a means to improve efficiency and performance of the health system.

Assistance is required for the scheme in design, development and implementation of surveys, data analysis, and evaluating the performance of health providers who have benefited from P4P. The World Bank or other international organizations with experience in P4P in association with local experts could provide this assistance.

11. DEMOCRATIC REPUBLIC OF THE CONGO

Organization description: NGO (Aide et Action pour la Paix)

Health problem(s) addressed by the P4P scheme:

- Maternal health - inadequate utilization of antenatal care, low rate of delivery with skilled attendant, low coverage of ARV prophylaxis among pregnant women, low postnatal care use, poor quality of delivery care
- Reproductive health / family planning - low contraceptive use
- Child health - low DPT3 immunization coverage, high morbidity from diarrhea, high morbidity from malaria, high morbidity from respiratory infections
- Tuberculosis - low TB case detection rate, low TB treatment completion rate
- HIV/AIDS - low knowledge of HIV status, low adherence to ART
- Malaria - inadequate use of antimalarial bednets, underuse of antimalarials to treat malaria
- Immunization

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

A fee (monetary incentive) is provided to health care providers for each fully immunized child.

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

The following indicators are regularly used:

- Outpatient department consultancies (one/person/year)
- Bed days (0,5 bed occupied /1000 population)
- Hospital referral with feedback
- Children six m–six yrs receiving vitamin A
- Child fully immunized before 12 months
- Pregnant women fully immunized
- Bednet distributed
- TBC case treated and sputum - (after six months)
- Women using oral or injectable contraceptives
- Institutional delivery by skilled staff

Targets are established based on MOH norms, for example, in the case of pregnant women or deliveries, it is about 4 percent of the (waited) population.

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

The scheme was developed in country as a potential solution to quality/performance problems. Scheme designers also learned from other pilots/programs that used performance incentives with good results and from participation in a workshop.

The health zone team is comprised of the MOH, the donor, the population represented by certain associations, and health workers.

Scheme management and funding:

The P4P scheme is funded by donors for two years; scheme managers are currently advocating with other health actors for additional funding.

Scheme evaluation and evidence/results of P4P impact (if any available)

The P4P scheme started as a pilot and has been scaled up to five health zones within the DRC. The objective of the pilot experience was to demonstrate that it is possible to support the health sector in an efficient and effective manner through P4P, and therefore to also assist NGOs in adopting this financing strategy within the health sector. A mid-term evaluation which compared the pilot to the control zones was completed in 2008. It was concluded that the pilot zones performed well and that observed performance improvements are tied to enhanced working conditions, management autonomy of workers, and personnel motivation.

The current P4P scheme covers 780,000 people (in the five health zones). The scheme started in 2006 in two health zones with a population of 360,000. In 2008, two other health zones with 250,000 people were included and, in 2009, one other health zone with a population of 170,000 was added.

12. EGYPT

Background:

The MOH in Egypt has been implementing performance-based incentive programs for several years. Egypt has really tried to address all priority services with the P4P program, including: maternal health, reproductive health/family planning, child health, tuberculosis, chronic conditions, immunization, nutrition, health education, quality, and accreditation.

The impetus for P4P activities in Egypt was to address the poor quality in health facilities and enhance performance of health care workers. The MOH was also able to learn from other pilot programs within Egypt that had successful outcomes and there was an interest in replicating these programs and scaling up to have a greater impact. Further, the P4P program in Egypt was to respond to a milieu of health problems within the country, including:

- Inadequate utilization of antenatal care
- Low contraceptive use
- Low rate of delivery with skilled attendant
- Poor quality of delivery care
- High morbidity from diarrhea and respiratory infections
- Maintain high target of immunization and usage of Integrated Management of Childhood Illness program
- Low TB case detection rate and treatment completion rate
- High burden of diabetes, hypertension, obesity, and addiction to alcohol, drugs, and tobacco
- High stigma and low awareness of mental health issues

So with the right donor support, Egypt was able to embark upon a more comprehensive P4P program.

***Program design**:*

The program was initially pilot tested in the newly-reformed primary health care facilities in one district and in one governorate. The pilot was a combination of payment incentives: a percentage increase in salary and a fixed-fee amount for achievement of different targets. The lessons learned from this experience were that health care providers arranged themselves to attain the target with minimal effort and without the quality of care expected. This prompted the program to shift the target indicators each month (taken from a comprehensive list of indicators that the health facilities were expected to achieve anyway) and an improvement in the supervision of the quality and data collection.

After looking at some of these issues, the program was expanded and refined. Currently, monetary incentives are provided to health care providers for achievement of targets in the areas listed above. There is also a fee model for achieving required utilization rates within the facility. There are other material incentives (certificates, workshops, conferences) provided to the health care providers and

other staff within the health care facility for achieving specific targets, as well. Payment is usually a percentage of the base salary on top of what they are already receiving.

The specific targets are determined by the central department of each facility and are based on realistic expectations for the coming year. This is established by looking at previous year's achievements and identifying feasible goals for the specific catchment area.

The general targets that the health care staff aims to achieve include the following:

- % of immunization coverage for each targeted immunization and % of the total immunization coverage in the catchment area served by PHC facility, reported weekly and monthly to health district administration (the source is the immunization logbook at the PHC facility)
- % of family planning (FP) utilization for each type and the total % of usage (source PHC logbook reported to the health district monthly)
- Number of females in the reproductive age between 15-45 year using FP, and the % relative to the total number in the catchment area (source PHC Logbook, reported to health district monthly)
- % of pregnant women in childbearing age to the total number of women of same age in the catchment area (source PHC Logbook, reported monthly to the health district)
- % of women receiving regular antenatal care visits to total number of pregnant women in the catchment area (source PHC Logbook, reported monthly, to health district)
- % of pregnant women get tetanus toxoid to the total pregnant women who visited the PHC facility, and to the total pregnant women in the catchment area (source is PHC logbook, reported monthly to the health district)
- % of deliveries with licensed skilled health care provider in the facility and in the catchment area to the total deliveries in the catchment area (source PHC logbook, reported to health district, monthly)
- % of women after labor who received postnatal care compared to the total women delivered in the catchment area
- % of antibiotics prescribed to the total number of prescriptions in the facility (source PHC pharmacy logbook, report to health district, monthly)
- Number of newly discovered chronic diseases compared to total number of visits to the FP clinic. % of each chronic disease discovered and on treatment in the catchment area (source PHC logbook, reported monthly to health district)

The indicators were chosen by the MOH and Health Insurance Organization (HIO), in collaboration with other donors, when the MOH launched the program.

Currently, the program is being implemented in a governorate with nearly 3.5 million people. It is estimated that approximately 74 percent of the population utilizes services from the accredited providers that are participating in the P4P program.

***Management and Funding**:*

The P4P scheme in Egypt is predominantly managed by the MOH. They are also providing some funding for the incentive program, along with donor funds that are coming in. There is effort to look at longer-term financing options to ensure the program continues; however, it has been a challenge to get local resources secured.

Finances are generally managed by the Family Health Fund (FHF), which is a separate body of the MOH that allows the separation of finance from the provision of care. The FHF has a central office in the capital and three main peripheral offices in three pilot governorates. Peripheral FHF offices report to central office at the MOH and then to the executive committee and MOH.

The P4P program functions are managed by different entities, as follows:

- Selecting recipients (to receive payment/goods) - MOH Health Reform Staff
- Designing contracts or performance agreements - Donors and FHF at MOH
- Negotiating contract terms and finalizing contracts - FHF at the central and peripheral level
- Monitoring attainment of performance targets - Technical support team, FHF team, and health district team
- Validating results (detecting and deterring potential falsification/fraud) - FHF central and peripheral
- Reporting validated results to trigger payment - FHF
- Transferring payment and/or material goods - FHF

The management of finances was one of the biggest challenges to operating the P4P program. For example, the staff at the FHF had a new responsibility and a significant amount of cash on hand. It was critical that all the FHF staff understood their roles in the dynamic of the health reform and how to use the power that they received from managing these resources and how to achieve objectives, despite this power. To avoid any complications, there were stricter guidelines and supervision of FHF staff and the way in which the finances were managed and programs implemented, to ensure timeliness and accuracy of payments.

Funding is also a sensitive topic from the point of sustainability. There are limited resources within the MOH and so a team from the MOH, HIO, and the Ministry of Finance is trying to address the longer-term funding options. This is particularly a concern now that health care providers expect the payments after achieving targets.

***Program Results**:*

The program is generally regarded as successful. There have been improvements in health outcomes, which are evidenced by the indicators that are being monitored. Further, health care staff are more satisfied in their positions, which is evidenced by the lower turnover rate within the health facilities. There are also reports of improved quality and access to health care services amongst the beneficiary population of the P4P activities. In fact, it was noticed that in one area where the P4P program was terminated, there as a decrease in indicators being monitored.

To reiterate, funding remains a challenge, particularly the sustainability of funding moving forward. A program manager has suggested that the sustainability of funding should be addressed before starting the intervention and that the donor should help with devising a solution to sustaining the program.

13. GHANA

Organization description: USAID (donor)

Health problem(s) addressed by the P4P scheme:

- Maternal health - low contraceptive use, low rate of delivery with skilled attendant, poor quality of delivery care, low postnatal care use
- Reproductive health/family planning
- Child health - High malnutrition, stunting, high morbidity from malaria, inadequate use of antimalarial bednets

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

The recipients of the incentive are regional and district health facilities. District health management budgets are supplemented as a whole with a description of how the money can be distributed, including a percentage that can be used to motivate staff, a percentage to increase operational support, etc.

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

The proposal is to use P4P approaches to stimulate better oversight and technical support by regional and district health teams. Monetary incentives, essentially a plus-up of the district's budget for implementation, is provided when the district health team performs specified levels of support to facilities and/or when service delivery outputs in their district improve (the details are still being worked out).

The indicators for this scheme have not been designed yet. However, the indicators will not target number of family planning acceptors due to Tiarht amendment concerns. The indicators may be fairly broad rather than tight indicators for each facility in the district, because the goal is to motivate regional and district teams to effectively provide support for each facility. Facilities already benefit from National Health Information Systems reimbursements but the regional and district teams do not.

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

The P4P scheme was initially designed by Susan Wright and Carolyn Jehu-Appiah from Ghana Health Services (GHS), but a broader group will be involved once the new phase of the program starts. The program will be pilot tested, initially in one full region, with approximately 16 districts and two million individuals in the region.

The scheme was introduced as a potential solution to quality or performance problems and with the promise of funding from a donor. There are two P4P initiatives that the respondent is aware of – one that will be funded by NorAid in Ghana and a USAID intent to pursue P4P within an upcoming program (not yet fully designed.) These responses relate mainly to the upcoming USAID-funded work.

Scheme management and funding:

Payment of incentives will be based on targets. These targets will be a mix of level of services provided in facilities (including some quality of care indicators) and targets for number of supervision visits performed, trainings offered by the district, outreach or promotional campaigns conducted, etc.

A formula will be developed showing acceptable uses of the plus-ups to their operational budgets, including incentives for personnel.

The program will be funded by USAID population and general MCH funds from 2009 to 2013. Following this period, if the intervention works, the idea is to show how the amounts are negligible compared to the gains, so that a portion of the Ghana Health Service budget could be designated for this, possibly supplemented by a small percentage of NHIS payments to facilities or directly to the MOH. Following are the roles/responsibilities proposed in implementing the intervention.

- Selecting recipients (to receive payment/goods) - Ghana Health Services, USAID, and possibly the implementing contractor
- Designing contracts or performance agreements - USAID and possibly the implementing contractor with inputs from GHS
- Negotiating contract terms and finalizing contracts - the implementing contractor
- Monitoring attainment of performance targets - regional teams and the implementing contractor
- Validating results (detecting and deterring potential falsification/fraud) - GHS staff, USAID, and the implementing contractor
- Reporting validated results to trigger payment - regional teams and the implementing contractor
- Transferring payment and/or material goods - the implementing contractor

The implementing contractor will report to USAID/Ghana.

Scheme evaluation and evidence/results of P4P impact (if any available)

The program will track trends in outputs of the health system in the intervention districts (services delivered) and compare them to trends in non-intervention districts with comparable baseline service delivery levels and target populations.

What next steps are anticipated for the P4P scheme?

Complete design of scheme and launch implementation.

Key challenges and lessons learned:

N/A – scheme is being designed.

14. HONDURAS

Organization description: USAID-funded Health Care Improvement (HCI) Project (an international technical agency which provides technical assistance)

Health problem(s) addressed by the P4P scheme:

The scheme addresses maternal health, reproductive health and family planning, and child health. Specific maternal health concerns are low contraceptive use, low rates of delivery with a skilled attendant, poor quality of delivery care, low postnatal case use and obstetric and neonatal complications management. Principal child health concerns are high morbidity from both diarrhea and respiratory infections.

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

Hospitals and quality improvement teams within the hospitals.

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

Monetary payments are given to hospitals based on implementation of quality improvement plans. A small portion of incentives goes directly to members of quality improvement teams for expenses linked to improving workers' satisfaction. The level of funding received depends upon the extent to which quality indicators are met: for example, if the QA team uses a partograph in 70 percent of cases, the team receives 70 percent of the funds for this indicator. Targets are established by the central MOH and each participant hospital. They are included in management agreements between these two parties. Explicit guidelines were developed to establish the payment rules and mechanisms. The amount of funding that a team receives depends on the extent to which indicators area reached.

Indicators used to calculate the incentive payment are as follows (with source of verification in parenthesis):

- % of reproductive health inputs present at the health facility on the measurement day (measured by direct observation using a checklist)
- % of pregnant women admitted into the labor/delivery room for delivery for which clinical assessment data was registered in the partograph (measured through clinical record audit)
- % of vaginal births where the three criteria for Active Management of the Third Stage of Labor were applied (measured through clinical record audit)
- % of post-partum (vaginal or C-section) users for whom selected criteria were monitored and registered in the perinatal clinical history according to standards (measured through clinical record audit)
- % of obstetric patients who presented with perinatal postpartum hemorrhage who were managed according to selected standards (measured through clinical record audit)
- % of newborns who were attended to immediately according to standards and were registered in the perinatal clinical history (measured through clinical record audit)

- % of premature newborns who were managed according to selected standards (measured through clinical record audit)
- % of children diagnosed with diarrhea and seen at the health facility, where they were assessed, classified, and treated according to the degree of dehydration (measured through clinical record audit)
- Standardized management of children's pneumonia (measured through clinical record audit)
- % of post obstetric event patients who received information about and were offered family planning methods
- % of obstetric care patients satisfied with the care they received

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

The scheme was developed in country as a potential solution to quality/performance problems. It was developed as a USAID initiative to provide funding to hospital-based teams to improve quality of care. Learning from other pilots/programs that used performance incentives with good results helped inform introduction of the P4P scheme. Key players involved in scheme design included the MOH, USAID/Honduras/the HCI project, the USAID-supported Quality Assurance Project, the USAID-supported Leadership, Management and Sustainability project (housed within Management Sciences for Health, UECF/MOH and Quality Department of MOH).

One year after P4P implementation, the process was evaluated and adjustments were made to the management agreements, payment mechanisms, indicators, etc. Approximately 500,000 people are currently covered by the scheme.

Scheme management and funding:

The MOH and HCI/USAID were responsible for selecting the hospitals that participate in the QA scheme. These two players, in conjunction with MSH are responsible for designing contracts and performance agreements. The MOH and hospitals negotiate contract terms and finalize contracts. MOH/UECF monitors attainment of performance targets, while UECF is responsible for validating results, reporting validated results to trigger payment and transferring payment and/or material goods. In short the MOH and UECF monitor results and make payment while HCI/USAID and MSH provide technical assistance (HCI to the MOH and MSH directly to UECF).

USAID currently funds the scheme. Funding is secured through 2009. Present discussions focus on how to include the scheme within the Ministry's budget.

Scheme evaluation and evidence/results of P4P impact (if any available)

As a result of scheme introduction, personnel have become very motivated to improve their work. Quality of care indicators have increased significantly. Additionally, programs outside of maternal/newborn health have become motivated to adopt quality improvement methods.

What next steps are anticipated for the P4P scheme?

N/a

Key challenges and lessons learned:

The key challenge is to identify and secure funds to maintain and expand the P4P scheme.

Another challenge was that hospital management was not used to effectively leading the quality improvement initiatives started by the quality teams. Teams that work in specific hospital services had to include personnel from other services, which did not see themselves as part of this effort.

Overall/additional thoughts:

Although expected, it was surprising to see how quality improvement is facilitated so much when its logic is linked to payment rewards.

There is interest in conducting operations research on the Honduran P4P experience, in particular in the area of financial management.

Scale-up and/or replication of this scheme is recommended as the P4P approach is adaptable to other institutions and facilities.

15. KENYA

Organization description: Marie Stopes Kenya

Health problem(s) addressed by the P4P scheme:

The P4P program in Kenya aims to improve reproductive and family health.

The specific health problems that are pervasive in Kenya and are being addressed by the P4P program include:

- Inadequate utilization of antenatal care
- Low contraceptive use
- Low rate of delivery with skilled attendant
- Poor quality of delivery care
- Low postnatal care use

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

The recipient of the incentive is the organization.

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

Marie Stopes provides incentives to organizations that ensure high-quality assistance, customer care, and market family planning services to ensure more clients visit the clinic.

Indicators and how measured:

1. Number of deliveries, measured against set targets reported through number of vouchers distributed
2. Number of family planning services, measured against set targets through number of vouchers distributed
3. Quality assurance, measured with a monthly monitoring evaluation tool, quarterly support tool, client exit evaluation tool, and accreditation manual
4. Poverty, measured using a poverty grading tool

Payment is not based on attainment of targets. Instead, the payment rules allocate fixed prices for each service and payment is as per the number of services provided.

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

This program was introduced after a donor proposed the idea. The MOH, Kreditanstalt fur Wiederaufbau (KfW), and the National Coordinating Agency for Population all participated in the design of the scheme. Currently, pilot testing is being carried out in five districts with plans to expand.

Scheme management and funding:

The P4P scheme is donor funded and secured through 2011. Continued financing will be based on the government "buying into the idea of output based financing."

The different functions of the program, and entities responsible for that function, are listed below:

- Selection of recipients to receive payment/goods (National Coordinating Agency for Population and Development [NCAPD] on behalf of the MOH)
- Designing contracts and performance agreements (PriceWaterhouseCoopers)
- Negotiating contract terms and finalizing contracts (NCAPD)
- Monitoring attainment of performance targets (National Health Insurance Fund standards and quality assurance department)
- Validating results (PriceWaterhouseCoopers)
- Reporting validated results to trigger payment (PriceWaterhouseCoopers)
- Transferring payment and/or material goods (PriceWaterhouseCoopers)

Scheme evaluation and evidence/results of P4P impact (if any available)

A midterm evaluation was carried out using rapid appraisal methodology for data gathering. An approximate 22 percent sample of accredited health facilities was selected for site visits.

Results to date include:

- Safe motherhood vouchers – 251.3 percent achievement
- Family planning – 77 percent achievement

This project involves the marketing and distribution of vouchers to enable the target community access to screening for mental health, long-term FP methods, and GVR services, at subsidized rates. These women would not have accessed services though a skilled attendant if it were not for this project.

What next steps are anticipated for the P4P scheme?

n/a

Key challenges and lessons learned:

Key challenges include: (1) keeping fraud under control, (2) identifying eligible clients, (3) overcoming a low uptake of long-term FP methods and GBVR services.

Lessons learned include: (1) impact of the project on health should be quantified, (2) voucher schemes work better in urban areas.

Overall/additional thoughts:

n/a

16. KENYA

Organization Description: Ministry of Health (MOH)

Health problem(s) addressed by the P4P scheme:

The scheme seeks to strengthen preventative activities for maternal health, child health, immunization, and nutrition to help achieve the MDGs.

In regards to maternal health and newborn mortality rates, specific problems being addressed by the P4P program include: (1) malnutrition, (2) inadequate utilization of antenatal care, (3) low rate of delivery with a skilled attendant, (4) poor quality of delivery care, (5) low postnatal care use, and (6) poor newborn care.

In regards to child mortality rates specific problems being addressed by the P4P program include: (1) high malnutrition/stunting, (2) high morbidity from diarrhea, (3) high morbidity from malaria, (4) high morbidity from respiratory infections, and (5) poor newborn care in nurseries and lack of equipment.

The P4P program is also trying to address problems relating to: (1) a low TB treatment completion rate, (2) the management of acute respiratory infections, (3) malnutrition, and (4) skilled deliveries.

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

Communities receive the incentive when services provided by health personnel are utilized by community members. For example, for every woman who delivers with health personnel present, or for every child who is immunized, the community is given different rewards, such as bicycles, bags, pens, food, seeds for planning, and food supplements.

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

Patients receive material and monetary rewards, including: bicycles as a mode of transportation, batches, bags, pens, food, seeds for planting, transport refunds, and food supplements during clinics.

Indicators used in determining the amount of the financial incentive include:

- Percentage of fully immunized children (routinely collected)
- Percentage of detection rates for TB cases (routinely collected)
- Number of children with stunting (household survey)
- Percentage of children immunized against measles (routinely collected)
- Percentage of deliveries by skilled attendants (routinely collected)
- Percentage of children born underweight (routinely collected)
- Percentage of pregnant women attending at least four ANC visits (routinely collected)

- Percentage of children given food supplements (household survey and community units)
- Percentage of households with stable food (household survey and community units)
- Percentage of stillbirths (routinely collected)

Payment is not based on attainment of targets. For every woman delivered the individual gets "some little payment." For every child immunized or defaulter traced, the individual gets some token. During quarterly meetings, various incentives are provided.

Background to the P4P scheme: Why was it introduced? Who is involved in design? In piloting?

The P4P scheme was introduced as an effort to make progress on MGDs (increase in access and coverage). The UNICEF Project Department of Child and Adolescent Health, Division of Reproductive Health, and Family Health International (FHI) were involved in designing the P4P intervention. The interventions are currently in pilot phase, supported by development partners.

Scheme management and funding

Funding is secured through 2010 by way of donations from UNICEF and FHI (although some will end in 2009). Currently, the MOH is in the process of developing strategic plans to carry the work through 2012.

Scheme evaluation and evidence/results of P4P impact (if any available)

Currently, plans are underway to evaluate and scale up effectiveness. Results to date include an increase in access especially at the last four ANC visits. Other successes include: a slight increase in deliveries in North Eastern province, a reduction in malnutrition rates, and a reduction in stunting weight.

What next steps are anticipated for the P4P scheme?

Continuing to secure funding is essential to the future of this P4P program, as is addressing the issue of inadequate staffing.

Key challenges and lessons learned:

- There is an essential lack of funds to introduce income-generating activities in every community unit to keep CHWs together
- Staffing is inadequate, which is why incentives are often given to those who are off. This is necessary to keep the program operating
- Introduction of domiciliary midwives should be duplicated, and the use of CHWs for home visitation and education should be replicated

Overall/additional thoughts:

The sustainability of the program is questionable, especially since the government is not putting the necessary resources into the program. Also, all of the interventions are not integrated since the funding is from different agencies.

12. KENYA

Organization description: Ambassadors of Change, NGO

Health problem(s) addressed by the P4P scheme:

This P4P program in Kenya aims to improve maternal health, reproductive health/family planning, child health, tuberculosis, HIV/AIDS, malaria, nutrition, and sexual violence.

The specific maternal and newborn health problems that are pervasive in Kenya and those that are being addressed by this P4P program include:

- Inadequate utilization of antenatal care
- Low contraceptive use
- Poor quality of delivery care
- Low postnatal care use
- Addressing the existing home delivery cases by expectant mother due to unfriendly environment and high cost of delivery services
- Malaria prevalence
- Stigma related to HIV/AIDS

The specific child health problems that are being addressed by this P4P program include:

- High malnutrition/stunting
- Low DPT3 immunization coverage
- High morbidity from malaria
- High morbidity from respiratory infections
- Broad distribution of treated mosquito bednets to pregnant mothers and children under age five
- Provision of post-exposure prophylaxis
- Anti-retroviral therapy (ART) for HIV-positive individuals including home-based care services

The specific health problems related to infectious disease that are being addressed by this P4P program include:

- Low TB case detection rate
- Low TB treatment completion rate
- Low knowledge of HIV status
- Low adherence to ART
- Inadequate use of antimalarial bednets

- Inadequate use of antimalarials to treat malaria
- Pre- and post-natal health care services including counseling on PTMCT and MTCT

The specific health problems related to non-infectious chronic conditions that are addressed by this P4P program include:

- High burden of diabetes
- High burden of hypertension
- High burden of obesity
- High burden of addiction to alcohol, drugs, and tobacco
- Targeting critical cancer development among women and girls (uterine and breast cancer, fibroids)

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

Health providers are the target groups to receive the performance payments for their productivity in encouraging community members to access professional health services. These payments are monetary rewards.

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

Ambassadors for Change provides incentives to health providers who are responsible for encouraging community members to access professional health services.

The indicators used are as follows:

- Number of women/children sleeping under treated mosquito nets
- Number of women registered at PMTCT, MTCT center
- Reduction of malaria infections
- Reduced rate home delivery cases
- Reduced mortality rate
- Increased adherence to anti malaria drugs/TB treatment
- Increased knowledge of HIV status among women
- Reduced level of stigma and discrimination on HIV status
- Improved home-based care services by community health workers
- Developed trust/confidence between the patient groups and health professionals

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

This program was introduced by a donor organization which wanted to develop a potential solution to quality and performance problems. A secondary motivation for introducing this program was to halt the flow of professional health workers from developing countries to developed nations.

The design of the program was orchestrated by multiple parties, including: the Kenyan government, the MOH, and professional health associations (i.e., dental, nursing, physicians, private sector, and NGOs). Pilot testing resulted in a demonstrated retention of staff and improved health services due to increased motivation.

Scheme management and funding:

The P4P scheme is funded by the Kenyan government, donor agencies, and development partners on an annual basis. The program will continue on this track in the future with hopes for a more cost-effective health system.

The different functions of the program, and entities responsible for that function, are listed below:

- Selecting recipients to receive payment/goods (academic achievements continuous assessment)
- Negotiating contract terms and finalizing contracts (applicable in private sector)
- Monitoring attainment of performance targets (health managers)
- Validating results and detecting potential fraud (Association of Health Professionals and Health Management Boards)
- Reporting validated results to trigger payment (Finance Department, MOH)
- Transferring payment and/or material goods (District Treasury)

Transparency and accountability at all levels of this chain are necessary to avoid compromising efficiency and effectiveness.

Scheme evaluation and evidence/results of P4P impact (if any available)

Monitoring and evaluation of the effectiveness of this P4P scheme is currently being carried out. A change in the attitude of the health workers, and a behavior change among the patient groups have been noticed.

What next steps are anticipated for the P4P scheme?

A scaling up of this intervention requires a scaling up of the quality of health services, including retention of a well-qualified health workforce and an improved work environment for health providers.

Key challenges and lessons learned:

Key challenges of this P4P program centered on the migration of staff, resulting in a revolving door of short-term administrators. One of the surprising outcomes of this scheme was the development of a collaborative partnership between health providers, community members, policymakers, and health advocates.

Overall/additional thoughts:

P4P programs should be universally introduced and adapted as an approach to address the existing critical global health workforce crisis.

18. PHILIPPINES

Organization description: Department of Health

Health problem(s) addressed by the P4P scheme:

Maternal health (in particular a low rate of delivery with a skilled attendant in health care facilities)

Recipient(s) of the incentive:

An accredited women's health team (WHT) comprising a registered midwife, "barangay" health worker, and a traditional birth attendant assigned in a particular catchment area.

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

The WHT receives 1,500 Philippine pesos ($31.25) for every delivery of a poor mother (whether or not enrolled in PhilHealth, Philippine's social health insurance) referred to and assisted in a health facility. WHTs are organized and established in every barangay in the selected provinces. A rural health doctor supervises the WHT within the catchment area.

The amount covers: (1) incentives for the WHT and (2) direct and indirect costs incurred during delivery. The incentive is given for every delivery.

The following indicators are measured:

- Maternal mortality ratio: number of women who die as a result of complications of pregnancy or childbearing in a given year per 100,000 live births in that year
- Medical attendance at births: number of birth deliveries attended by trained health professionals (doctors, nurses, midwives)
- Utilization of health facilities: number of households that visited a health facility for a defined period of time
- Infant mortality rate: number of deaths among children less than one year old per 1000 live births in a given year
- Neonatal mortality rate: number of deaths of infants under 28 days of age in a given year per 1,000 live births in that year

The respondent did not give indicator sources.

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

The scheme was developed in country as a potential solution to quality/performance problems, in particular to address the low rate of deliveries by skilled birth attendants. National government (i.e. Department of Health including PhilHealth), local government units (provinces, cities, or municipalities) including their respective health facilities (hospitals, rural health units, barangay health units), and foreign and local health experts were involved in the design of the scheme. From 2006 to 2010, the P4P

intervention is being piloted in six provinces before it is rolled out nationwide to all provinces in the country. The project consists of two batches of pilot project sites. Surigao del Sur (0.5 million people) and Sorsogn (0.7 million people) provinces started in 2006. Albay (1.2M), Masbate (0.77M), Isabela (1.3M), and Catanduanes (0.22M) provinces started in 2009.

Scheme management and funding:

There are two main sources of financing for the P4P scheme, local and foreign. Local sources include budget appropriation by the local government unit and the national government, reimbursements from PhilHealth, and user fees from hospitals. Foreign financing sources include a loan from the World Bank and the LOGOFIND project managed by the Municipal Development Fund Office of the Finance Department.

The process of reporting validated results to trigger payment is as follows. The WHT completes a certificate of eligible facility-based childbirth form signed off on by the health facility manager. The form contains the following information: (1) name of the referring or attending WHT midwife or doctor; (2) mother's name; (3) place of residence; (4) confirmation of poor (indigent) status; (5) if the woman who has just delivered is a PhilHealth member, PhilHealth identification care number and confirmation that completed reimbursement request has been submitted to PhilHealth; (6) woman's obstetrical condition or diagnosis; and (7) name, type, and address of service facility. This form is submitted to the accountant, treasurer, and cashier of the local government who pays the incentives.

Scheme evaluation and evidence/results of P4P impact (if any available)

The P4P scheme is currently being evaluated and more project information is supposed to be on the Department of Health web site www.doh.gov.ph, but could not be found.

What next steps are anticipated for the P4P scheme?

The first six provinces mentioned above are being currently evaluated after which it will be rolled out nationwide.

Key challenges and lessons learned:

One of the problems is the mapping and establishment of the basic emergency obstetric care and comprehensive emergency obstetric care facilities.

Overall/additional thoughts:

Payments are not based on attaining preset targets.

19. RWANDA

Organization description: HealthNet TPO (NGO)

Health problem(s) addressed by the P4P program:

Mental health and its integration in the basic health care

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

Incentives:

Health provider in health centers: Cash monthly for quality improvement

Regulators: Cash monthly for running cost recovery

School teacher: Cash monthly

CHW: Materials such as rabbit, goat, or garden seeds

Outcome indicators and their measurements:

1. Number of new consultation cases measured by bookkeeping registers of consultation and pharmacy
2. High-quality deliveries, measured by bookkeeping register
3. Fully vaccinated children by vaccinated card (time and interval between two vaccinations)
4. Number of detected TB cases by TB program register, lab validated result paper or register
5. Number of epilepsy cases under treatment by consultation and pharmacy register, stock of specific drug, number of crises
6. Number of new users of family planning by consultation and pharmacy register, bookkeeping, couple consent document
7. Proportion of c-sections among all deliveries under 15 percent by deliveries, surgeries, pharmacy register, bookkeeping
8. Number of referrals from health center seen by a medical doctor, referred case paper, doctor consultation and pharmacy register, patient file
9. Number of blood transfusions under five tested (HIV, hepatitis, syphilis, and malaria), lab and hospitalization register and bookkeeping
10. Number of feedback of referral cases, referral stamped by the regulator, Bureau Central de Zone de Sante (BCZ), consultation register

The quarterly renewable contract is negotiated between the HealthNet TPO team, health center chief nurse, and his/her CHW.

Background to the P4P program: Why was it introduced? Who was involved in design? In piloting?

The scheme was introduced as a means to try to push the health providers to think about the overall health problem and not just the health process, and also to promote good quality of health care (by bringing practice close to the theory they have learned).

HealthNet TPO designed the pilot.

Brief program management overview

This is a two-year project, 2009-2010, and is funded by the government of Holland.

The project is managed primarily by HealthNet TPO. The functions of the scheme are explained below:

1. Selection of recipients (to receive payment/goods) - selected by the regulator, also negotiated by HealthNet TPO for those not previously accepted by the regulator
2. Design of contracts or performance agreements - Health center management team, HealthNet TPO and regulator
3. Negotiation of contract terms and finalizing contracts - Health Center management team and HealthNet TPO under regulator supervision
4. Monitoring attainment of performance targets - Verifier for the chief service of the regulator (health [antenne] supervisor) and HealthNet TPO
5. Validation of results (detecting and deterring potential falsification/fraud) - Independent controller hired by HealthNet TPO
6. Report validated results to trigger payment - Health [antenna] supervisors (Verifier)
7. Transferring payment and/or material goods - HealthNet TPO

Program evaluation and evidence/results of P4P impact (if any available)

The project is in first quarter of implementation, no complete evaluation available.

What next steps are anticipated for the P4P program?

1. Improve the usage of increased income in health center
2. Advocate to the community and authorities to implement mutuelle and other financial system
3. Draft proposal for two or three more years (2011-1013) of implementation
4. Learn from others experience to avoid problems (such as attending the Health Systems 20/20 P4P workshop)

Key challenges and lessons learned

Because of the P4P scheme, the health center management team and the BCZ are more concerned about money for individual income and are not willing to use the money from the incentive for investment because of low government salary.

Overall thoughts

PBF is more effective in rural areas, where the government does not implement any quality control, and in the pilot region, where there are no consequences for not doing the job. So PBF or P4P is a reminder for regulators and health providers about what should be done and achieved for the sake of good health care and reduction of morbidity and mortality. It also makes the MDGs practical and clear to the health care providers...they see themselves as actors to help achieve these goals.

20. ZAMBIA

Organization description: Ministry of Health

Health problem(s) addressed by the P4P scheme:

The P4P scheme described aims to address the following health problems:

- Maternal health, reproductive health/family planning: Pregnant women receiving three doses of intermittent preventative treatment (IPT), pregnant women receiving iron supplements at ANC, postnatal visits within six days of delivery by health care staff, family planning (new acceptors), institutional deliveries
- Child health: Full immunization of children under one, percentage of children under six months receiving exclusive breastfeeding, Percentage of household with properly hanging bednets, proportion of children under five with diarrhea receiving oral rehydration salts

Recipient(s) of the incentive (e.g., mothers, families, CHWs, facilities, etc.):

Health center staff

Workings of the P4P mechanism: What incentive is provided when what behavior is taken or outcome achieved? How frequently is the incentive given? What indicators are used and how are they measured?

The incentive is a fee-for-service scheme with quarterly performance payments paid to the health facility based on the total number of incentivized interventions delivered in a given quarter. The fees are paid as a group bonus to all members of the health center team. These fees have been set after numerous consultations at both the district and health facility level. The current fee table being tested is as follows with institutional deliveries being prioritized:

- Full immunization of children under one = US$1.00
- Pregnant women receiving three doses of IPT = US$1.00
- Pregnant women receiving iron supplements at ANC = US$1.00
- Postnatal visits within six days of delivery by HC staff = US$1.00
- Family planning (new acceptors) = US$1.00
- Institutional deliveries = US$2.00

The following indicators and sources are used in this performance scheme:

Indicator	Source
Percentage of children under five who sleep under an insecticide-treated net	Malaria Indicator Survey every two years
Percentage of pregnant women receiving at least two doses of IPT	Malaria Indicator Survey every two years)
Percentage of women delivering in facilities by skilled birth attendant	HMIS every quarter
Percentage of women attending postnatal visits by health center staff (delivery at home or in facility)	HMIS every quarter
Percentage of household with properly hanging bednets	Community HMIS every quarter
Percentage of women who received iron supplements at antenatal care visit	HMIS every quarter
Percentage of women using any type of contraception (new acceptors)	HMIS every quarter
Percentage of women who received at least one injection of tetanus toxid during pregnancy	HMIS every quarter
Full immunization coverage of children under one	HMIS every quarter

Background to the P4P scheme: Why was it introduced? Who was involved in design? In piloting?

The MOH has been implementing a rural retention scheme for health workers, where health workers working in government health facilities in rural districts are paid a rural retention allowance. While the scheme has resulted in health workers being redeployed to work in hard-to-reach and underdeveloped areas, it has not resulted in improved productivity of health workers because the incentive is not tied to any performance target. In order to improve productivity of health workers, the MOH (including provincial health staff, district health management team (DHMT) members, and health center staff), its cooperating partners, and the World Bank designed a scheme to supplement the retention scheme with a results-based financing incentive.

The scheme was first 'pre-pilot' tested using two incentive schemes, a fee-for-service scheme and a target-based scheme. After the pre-pilot, the fee-for-service was selected as the most appropriate incentive scheme because it was easy to measure performance and to calculate the incentives.

Following this pre-pilot, the results-based financing program is being implemented in nine districts (one district in each of the nine provinces) on a pilot basis for a two-year period. The total population covered in the nine districts is approximately 1.5 million. The Norwegian Fund, administered through the World Bank, is providing $11 million in funding through the pilot period. After the pilot period, the program is planned to be rolled out to all 72 districts. Funding for the scale-up will be through domestic revenue and pooled basket funds from donors. The money for the program will be incorporated into the monthly district grants.

Scheme management and funding

A Performance Payment Committee (PPC) is established to determine the award amount that the facility may earn in whole or in part at the end of the period of performance. The PPC comprises the DHMT, accounting officer, manager of planning, the chairperson of the Area Development Committee, and the chairperson of the Area Development Committee supervised by the district health manager. The PPC evaluates the facility's performance against the indicators specified in the performance payment plan on a quarterly basis. The PPC determines the amount of the performance payment to be paid to each facility. Following is a breakdown of how the program is administered:

- Selecting recipients (to receive payment/goods): MOH headquarters

- Designing contracts or performance agreements: MOH headquarters and DHMT staff
- Negotiating contract terms and finalizing contracts: Provincial Health Office (PHO) negotiates the district contract with the DHMT and the DHMT negotiates the facility-based contract with health center staff
- Monitoring attainment of performance targets: The PHO monitors the overall district performance while the DHMT monitors the facility-based performance
- Validating results (detecting and deterring potential falsification/fraud): Results are validated by an external, independent team which is contracted to undertake this exercise
- Reporting validated results to trigger payment: The PHO reports the overall district results to trigger payment, while the DHMT validates facility-based performance to trigger payments to that level
- Transferring payment and/or material goods: The MOH accounts unit transfers the money to the PHO who in turn transfers the money to the DHMT upon attainment of results. The DHMT will further transfer the funds to the facility.

The reporting is done through the established reporting mechanisms for the HMIS. The health facility in-charge reports the results for the quarters to the District Medical Officers (DMO) who submit the data to the District Information Officer (DIO) for review and validation. The DIO then submits the information to the Provincial Medical Officers (PMO) through the DMO. The PMO submits the consolidated district information to the provincial data management specialist for review and validation.

Scheme evaluation and evidence/results of P4P impact (if any available)

There will be an impact evaluation done which will answer three questions:

- What is the causal effect of the Zambian HRBF on the health outcomes of interest? The evaluation for question 1 is a multi-site cluster randomized trial. Stratification of districts at the province level (and randomization within districts) accounts for 10-25 percent of observed variation in the three outcomes investigated. Further matching at the facility level is expected to account for an even greater share of variation. Baseline covariates such as the index of DHMT capacity and rural or peri-urban district status account for an additional 5-10 percent of residual variation net of provincial stratification. However, the clustered nature of the intervention at the district level has adverse consequences for power. Simulations suggest that the intra-cluster correlation is expected to range from .14 to .32 depending on the outcome of interest. These factors combine to suggest that the quasi-experimental evaluation of Question 1 will identify a mean 15 percentage point increase in the in-facility delivery rate, a 15 percentage point increase in tetanus toxoid (TT) coverage, and a 21 percentage point increase in post-natal coverage at standard levels of significance. If facility-level matching improves the explained baseline variation to the levels listed in the second panel of Table Y, then the improvements identified by the analysis reduce to 13, 14, and 18 percentage point improvements in in-facility delivery rate, TT coverage, and post-natal coverage respectively. If indeed the true intra-district correlations in facility-level outcomes are lower than the amounts hypothesized here, then the analysis will be able to identify substantially smaller improvements in health outcomes at acceptable levels of precision.
- Do higher incentive payments in rural/remote areas result in increased health outcomes and greater retention of staff? The analysis of question 2, which introduces differing incentive levels among remote facilities, draws inferences under a multi-site randomized design since the incentive level is

randomized within districts. A conservative approach would be to assume that no district-level covariate helps to explain the differential performance among remote districts – in other words, there is no effect size variability – and thus adopt a district-fixed effect framework. This study design would then ensure the identification of a mean difference across treatment and control facilities of 13, 12, and 15 percentage points in the in-facility delivery rate, the TT coverage rage, and the post-natal coverage rate respectively. No baseline data on staff retention rates is available and hence no power analysis for this outcome is pursued.

- How does the likelihood of audit/external verification of results affect the accuracy of reported data? The outcome analyzed under question 3 is a binary indicator: whether a facility has misreported a particular indicator in a particular reference period. The power analysis explores the doubling of the likelihood of facility audit in any given quarter from 10 percent to 20 percent for all facilities in a district. The baseline hypothesis is that a facility will misreport a given indicator 20 percent of the time when faced with a 10 percent probability of audit. Given this baseline assumption, the impact evaluation will be able to identify a reduction in the misreport rate to 11 percent at standard levels of precision. Because, in the case of a binary outcome, the level-1 variance is heteroskedastic and thus the intra-class correlation uninformative, the power analysis does not adjust for district-level effects in the misreport rate.

What next steps are anticipated for the P4P scheme?

After the two-year pilot period (which has just started) and the impact evaluation, the decision to scale up the program to all 72 districts will be determined. However, based on the experience with the health worker retention scheme, monetary incentives not tied to performance does not result in improved productivity of staff.

The MOH plans to integrate the program into the overall district financing mechanism. The challenge is how best to integrate the program into overall district performance, linking it to the already existing performance assessment and technical support system and to the rural retention scheme.

Key challenges and lessons learned:

The pilot phase for RBF has just commenced.

Overall/additional thoughts:

A training and implementation manual has been developed and all RBF implementing staff are oriented on the manuals covering topics such as reporting, setting targets, monitoring performance, etc. The RBF implementation manual comprises a performance assessment tool, reporting tool, contract samples, the service package, indicators, equipment package, and incentive scheme.

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