

Examination of the impact and cost of P4P in Tanzania – evidence from Pwani: A policy report



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Key Messages

Utilisation of health services

- P4P had positive effects on coverage of institutional deliveries, provision of anti-malarials during pregnancy, and limited effects on polio vaccination at birth.
- P4P resulted in limited positive effects on non-incentivised aspects of targeted services.
- There is evidence of a reduction in non-targeted service use in dispensaries in P4P areas compared to areas without P4P.

Quality of care

- There was no P4P effect on clinical care or in most dimensions of patient experience of care for targeted and non-targeted services.
- Kindness during deliveries increased; stock outs for certain items reduced; exemptions were more likely for selected services in P4P areas compared to areas without P4P.
- There are indications that waiting times for targeted-services may have increased in P4P areas.

Health worker motivation and productivity

- There were no overall effects on individual, organizational or external factors that would affect health worker motivation. However, the findings point to a potential positive effect on intrinsic motivation; satisfaction with salary and salary timeliness; some aspects of team work; supervision frequency and relations with managers; safety and security in the community.
- Targets requiring little effort, or where health workers could easily overcome constraints, were more likely to be affected by P4P.
- Facilities invested considerable effort in trying to meet delivery care targets.
- There were no overall effects on health worker productivity. Productivity decreased in small facilities and increased in larger facilities.

Costs of P4P

- Time spent gathering data for P4P and data verification is significant and has a significant effect on total implementation costs.

Introduction

*P4P implementation is on the increase in low income countries.
However, there is very little evidence of its impact, and no evidence of cost*

Payment for performance (P4P) has a long history of implementation in high income countries in the health and education sectors. Over recent years P4P is gaining momentum in the health sector in low and middle-income countries (LMIC) to tackle MDGs 4 and 5. For example, in 2013 a total of 31 LMIC were implementing P4P schemes supported by USD 1.6 billion in low interest loans from the World Bank (IDA funding) and USD 410 million from the Results Innovation Trust Fund which is co-funded by the Government of Norway and the United Kingdom. However, evidence of the effects of P4P in these settings is very limited. Existing evidence shows limited and mixed results on service utilisation, quality and no evidence on effects on non-targeted services, on patient experience of care, health workers, and costs are currently available.

The Tanzanian Ministry of Health and Social Welfare, with financial support from the Norwegian Ministry of Foreign Affairs, and technical support from the Clinton Health Access Initiative has been implementing a pilot of P4P in Pwani region of Tanzania since 2011. This provides a unique opportunity to rigorously evaluate P4P and address these current knowledge gaps. The Tanzanian government is currently deciding whether or not to roll out P4P nationally. The current policy report is designed to guide this decision process by providing a summary of the evidence of the impact of P4P in Pwani and its cost, alongside some policy recommendations.

P4P in Pwani

P4P in Pwani is a package of interventions

P4P in Pwani is a package of interventions including:

- **Bonus payments** to health workers and managers based on achievement of pre-specific performance targets linked to service use and content of care;
- **Additional funding to health facilities** that meet performance target
- Improved **data reporting** and transparency;
- Enhanced **performance monitoring/supervision** through verification and feedback meetings
- Greater **financial autonomy** through facility bank accounts.

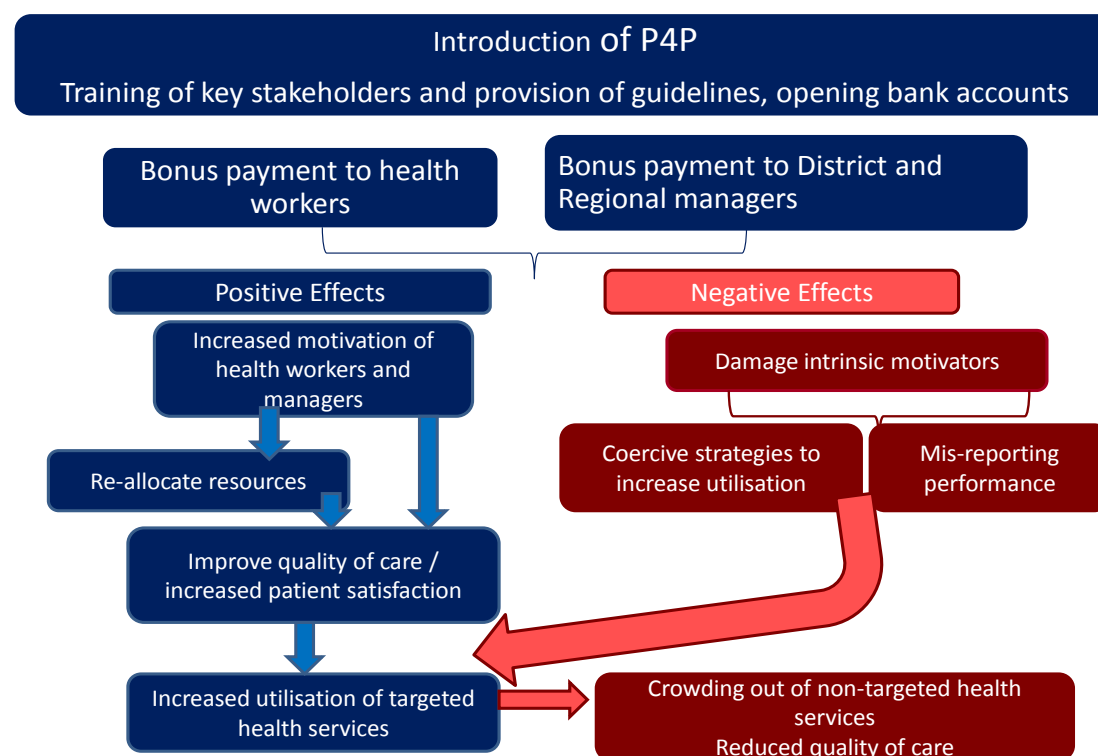
Evaluation Approach

The evaluation used a theory of change approach, which sets out the intended outcomes of the intervention and how we expect these outcomes to be reached.

A theory of change was used to guide the evaluation. We expect that the direct financial effects of P4P (bonus to health workers) will be motivating to achieve targets. Additional resources for facilities will be a further potential source of motivation for health workers. We also expect that greater attention to results and interactions with supervisors will be motivating and performance enhancing. More motivated, informed and better equipped health workers will be able to deliver better quality care to patients. As a result service utilisation will increase. However, financial incentives could make health workers more money orientated (*motisha*) and less driven by a

willingness to serve (*kuwa na moyo*). Quality of care may increase for services associated with bonus payments, and reduce for services that are not incentivised. This could result in reduced utilisation of non-targeted services. If utilisation of targeted services increases beyond what can be feasibly managed by facilities, this could also result in reduced quality of care.

Figure 1: Theory of Change: How P4P leads to utilisation changes at facilities



An evaluation was carried out at three levels to address a specific set of objectives and questions about P4P (table 1):

Table 1: P4P Evaluation Components

Evaluation components	Key question	Objectives
Process Evaluation	How does P4P work?	<ul style="list-style-type: none"> Has P4P been implemented as planned? How has P4P affected health workers and their managers? Which factors support/impede implementation?
Impact Evaluation	Is P4P effective?	<ul style="list-style-type: none"> Effect of P4P on health worker motivation and productivity Effect of P4P on quality of care for targeted and non-targeted services Effect of p4p on use of targeted/non-targeted services
Economic Evaluation	Is P4P a good use of money?	<ul style="list-style-type: none"> Cost and financial sustainability of P4P

Process Evaluation

Process monitoring was informed by a review of available P4P documents and individual in-depth interviews and focus group discussions (FGDs) with health workers, health facility governing committee (HFGC) members, district and regional health managers, members of the Pilot Management Team (PMT) and a cross-section of national stakeholders from the Ministry of Health and Social Welfare, P4P Advisory Board, Civil Society and the Development Partners. Information from PMT coordinated feedback and orientation sessions was also gathered.

Measuring Impact

To measure impact we compared indicators at two points in time in areas with and without P4P.

To measure the impact of P4P it is necessary to compare indicators at two points in time, before P4P started and after a pre-defined period of implementation. However, because service utilisation is increasing in many areas of the country due to a variety of other factors, we want to be sure that we can attribute the increase in utilization in the P4P areas to the P4P programme. To tell whether the observed increase was greater than what would have happened without P4P, we need to also look at changes over time in an area without P4P. This comparison area should be as similar as possible to the P4P area.

The chosen study areas were all 7 districts of Pwani region and 4 districts with no P4P: Morogoro rural, Morogoro urban, Mvomero and Kilwa districts. The evaluation assumes that the 4 districts with no P4P represent what would have happened in Pwani without P4P.

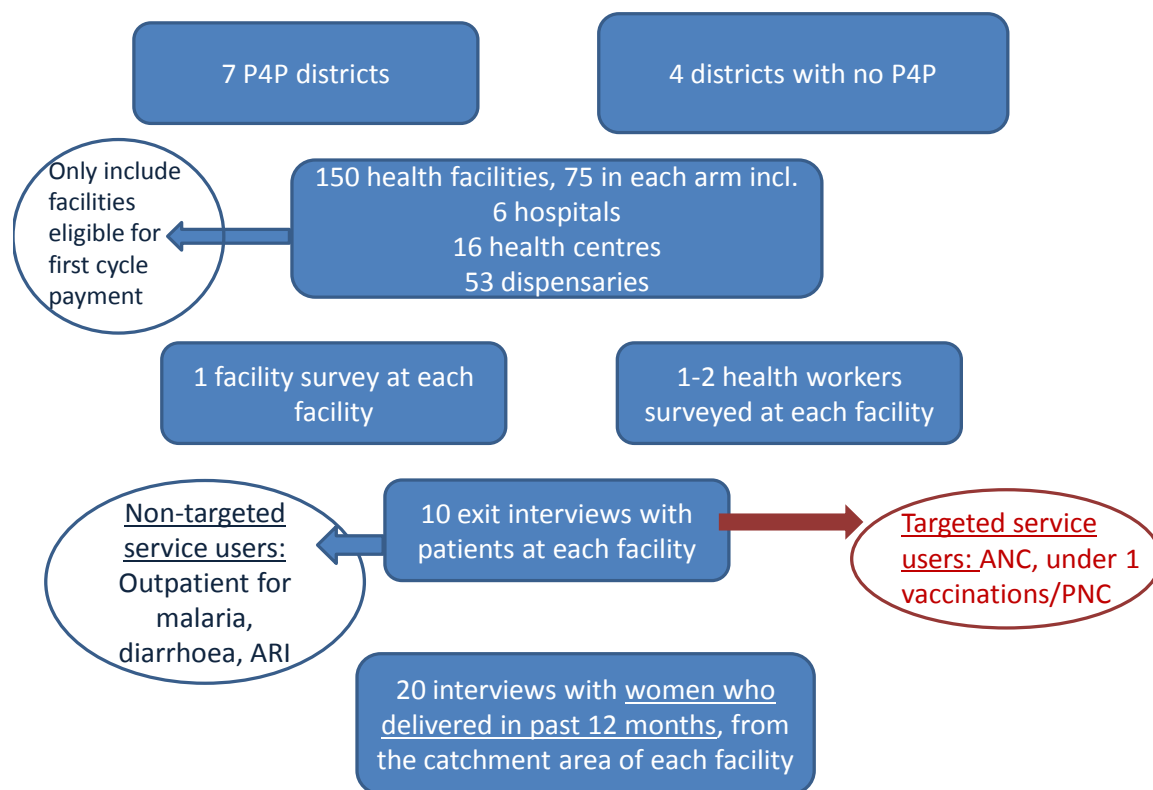
Surveys were done in 150 facilities, with over 200 health workers, 1,500 patients and 3,000 households in January 2012 and 13 months later. An overview of the process of data collection is shown in Figure 2.

Measuring Cost

To measure costs we valued all financial transactions associated with P4P (financial costs) and all resources consumed in the implementation of P4P (economic costs).

The costs of setting-up and running P4P over 4 cycles of implementation were measured. Costs incurred by all stakeholders were included. Direct financial costs (involving a financial transaction) were estimated along with the economic costs (the value of all resources used irrespective of whether they involved a financial transaction). The costs of rolling out P4P nationally were projected. Cost data were extracted from interviews with key stakeholders and supplemented with information from financial accounts, where available.

Figure 2: Process of Data Collection



Impact of P4P

1. Utilisation of Health Services

P4P had positive effects on some targeted indicators, and limited positive “spill-over” effects. There is evidence of a reduction in non-targeted service use in dispensaries.

Targeted Services

Over a 13 month period, P4P had positive effects on the provision of anti-malarials during antenatal care (ANC) (IPT2) and on the rate of institutional deliveries (Table 1). The increase in deliveries was greater for the poorest third of households than the least poor (by 10%). A limited effect was noted on the rate of polio vaccination at birth.

P4P had no effect on other service targets: HIV treatment during ANC, postnatal care (PNC) within 7 days, family planning use, and DPT and measles vaccination.

The impact evaluation did not consider the impact on management targets except for stock out rate of tracer drugs which was not affected by P4P. The process evaluation found there were considerable improvements in the timeliness of HMIS reporting. However, there were some concerns with respect to the quality of performance data.

*“..for example in the past two or three years, reports were not submitted on time, but nowadays health workers know that if they don’t submit their reports they will be penalized. This has **sensitized***

people to be careful about reports; they do not want to submit their reports late to avoid losing their score”, (Interview with Health Worker, March 2013).

P4P Effects on Services that were not Incentivised

P4P had some effects on non-incentivised aspects of targeted services (“spill-over” effects). P4P had a positive effect on the likelihood of having at least one ANC visit. There was no effect on the likelihood of having 4 or more ANC visits. Although a positive effect was noted on tetanus toxoid immunisation during ANC, this was largely due to a reduction in coverage in areas with no P4P. No other effects (positive or negative) were noted in other recorded aspects of targeted services.

No P4P effect was found on non-targeted service utilisation levels for all facilities, however, a significant reduction in outpatient visits (for both under 5s and over 5s) was noted in dispensaries.

Data Sources

Utilisation data extracted from patient registers at facilities suffered from incompleteness, and these data were also affected by P4P, making them unreliable as a basis for measuring impact. Household survey data is a more reliable and robust source of information on which to base assessments of P4p impact.

Table 1 Summary of Effects on Service Utilisation

	Effect (increase as a share of baseline coverage)	No effect
Targeted indicators		
2 doses of anti-malarial during ANC	(++) 22%	
HIV treatment during ANC		X
Facility-based deliveries	(++) 9%	
Vaccination at birth OPV0	(+) 8%	
PNC within 7 days		X
DPT, measles vaccination		X
Family planning		X
Stock out of any tracer drug		X
Spill overs –targeted		
ANC	(++) 3%	
ANC 4+		X
Tetanus during ANC	(+) 7%	
Bednet voucher during ANC	(++) 12%	
Iron during ANC		X
C-section		X
Family planning		X
Spill-overs Non-targeted		
OPD under 5 (dispensaries)	(- -) 34%	
OPD over 5 (dispensaries)	(- -) 33%	
Diarrhoea OP D		X
Malaria OPD		X
ARI OPD	(- -) 53%	

(++) denotes positive effect; (+) denotes indications of potential positive effect; (--) denotes negative effect; (-) denotes indications of potential negative effect.

2. Quality of Care

There was no P4P effect on content of care or in most dimensions of patient experience of care for targeted and non-targeted services. Kindness during deliveries increased; stock outs for certain items reduced; exemptions were more likely for selected services. There are indications that waiting times for targeted-services increased.

Clinical guidelines for ANC were only partly implemented. There was no effect of P4P on overall content of care for ANC, although some incentivized components of care improved.

*“One of the things I have noticed is that **workers nowadays know their responsibility** which is different from the past [...] **All the services included in the indicators, which were ignored in the past, these days workers pay attention on them, it is like they have woken up**”, (Interview with a Health Worker, February 2013)*

There was no evidence of an effect of P4P on content of care for non-targeted services. There was no effect of P4P on provider-patient interactions for targeted outpatient care. However, provider kindness during delivery increased. An improvement for inter-personal care was noted for non-targeted services, although there is no plausible link with P4P. Overall patient satisfaction with the care received at the facility was not affected by P4P – although reductions in stock outs of drugs tied to targeted services were noted. There was no effect on waiting time or consultation time, although patients seeking care for targeted services waited longer and had shorter consultation times on average in P4P areas than areas with no P4P – this pattern was not observed for non-targeted services. The affordability of care overall was not affected by P4P, although patients were more likely to be exempt from payments for ANC and delivery care in the P4P area.

Table 2: Quality of Health Care

	Effect	No effect
Clinical content of care		
ANC (overall)		X
Non-targeted services		X
Inter-personal care		
Targeted outpatient care		X
Delivery care	(++) Kindness only	
Non-targeted outpatient care	(++)	
Facility care		
Overall satisfaction		X
Waiting time – target		X (+)
Waiting time- non-target		X
Consult time – target		X (-)
Consult time – non-target		X
Stock outs	(--) selected drugs	
Facility infrastructure		X
Affordability		
Exemptions for MNCH	(++) ANC, Delivery	X (PNC)
Amount paid for MNCH		X
Gift for MNCH		X
Purchase supplies		X
Affordability		X

(++) denotes positive effect; (+) denotes indications of potential positive effect; (--) denotes negative effect; (-) denotes indications of potential negative effect.

3. Health worker motivation

No overall effects on individual, organizational or external factors that would affect motivation. However, the findings point to a potential positive effect on intrinsic motivation; satisfaction with salary and timeliness; some aspects of team work; supervision frequency and relations with managers; safety and security in the community.

90% of health workers interviewed had received a bonus, all were in facilities with bank accounts, and most received more frequent supervision than their counterparts in areas without P4P. However, in terms of health worker reports of aspects of the work environment that could affect motivation- no effects of P4P were identified overall. Some changes were noted in the P4P area that were not reflected in the comparison area [without P4P]:

- Some improvements in health worker attitude to work;
- Health workers reported being satisfied with bonus amounts, with higher levels of satisfaction at lower level and government facilities. An increase in satisfaction with salary level and timeliness, and housing allowances was also noted. There was no effect on other allowances, or income from other sources, and there was a reduction in health worker satisfaction with being rewarded for hard work.

*".....the **salary might not satisfy me** but **P4P adds something to my income**, therefore, I can do things which I could not do with my little salary" (Health Worker, March 2013).*

- Supervision frequency increased and relations with district level supervisors improved, but supervision content did not change and opportunities for promotion remained limited.

*"**close supervision** we are getting for instance, **we sit down and talk and get the chance to understand our problems** and you go to work ...this is also an important motivation that will make you work harder" (Health Worker, FGD, Dispensary 2013).*

*"What I can say is that **it is not the paying (the bonuses) that can improve the provision of health services... the whole package: the supervision, the feedback, the monitoring, the way you tell them how to look at their performance then it improves the performance of the district (CHMT), of the health facilities**" (PMT member, Mar 2013)*

*".....staff have **not received any promotion for about ten to twenty years**. Some do fail to go for further studies due to lack of sponsorship....." (Health worker, Hospital, January 2012).*

- There was some evidence of greater health worker autonomy in certain professional domains;
- Effects on team work were mixed with some improvements (e.g. knowledge sharing; staff solving disagreement) and some reductions (e.g. staff communication). Some tensions were reported in hospitals between reproductive and child health workers who received bonuses and those that did not.

*"**There is money, there is a lot of conflict of interest among the health care providers**, they have said who should be paid, who should not be paid, why not us, why only RCH services" (Interview with a PMT member, March 2013).*

*".....**P4P is difficult at the level of hospital where there are many staff**. [...] It is not like in dispensaries, where staff are very few, there is no demarcation between RCH and non RCH staff" (Health Worker, Hospital, February 2012)*

- Health workers were more likely to report being satisfied with safety and security in the community.
- Health workers in facilities where scorecards were appropriately used were pleased with level of transparency in disbursement of funds to health workers (though the scorecards need to be periodically adjusted to reflect changing composition of staffing levels in the facilities).

“Yes, the truth is that, these [scorecards] are procedures which are used in P4P money.

***Everything is done in a transparent way.** We know how much the facility gets, how much is for facility staff and how much is supposed to be used for drugs. To be honest it is **difficult to get such information for other [funding] sources, except for P4P.**” (Health Worker, October 2012)*

Table 3: Health Worker Motivation

Levels	Effect	No Effect
Individual level		
Attitudes and feelings towards work	(+) proud of work, feels good about self, try to do best, hard worker, punctual	Efficient at work
Working hours		X
Absenteeism		X
Organisational level		
Financial incentives	(+) satisfaction with salary, and salary timeliness, and housing allowances (-) recognition of hard work	<ul style="list-style-type: none"> • Received housing allowances or other allowances. • Satisfaction with other allowances. • Income from other sources.
Monitoring of performance and supervision	(++) supervision (+) relations with district managers; opportunity to discuss with supervisor; training opportunities.	<ul style="list-style-type: none"> • Content of supervision • Relations with internal supervisor • Recognition of hard work • Promotion opportunities • Ability to use skills • Goal orientated
Autonomy	(+) innovation is important; head of facility innovates	<ul style="list-style-type: none"> • Innovative facility • Formal facility • Procedures important
Organisational culture	(-) less likely to chat about work (+) Change is an opportunity to improve (+) transparency in bonus payments to HWs, where scorecards were appropriately used	<ul style="list-style-type: none"> • Traditions important • Head is a mentor • Changes difficult to cope with • Staff complaining • Frequency of governance committees meeting
Team work	(+) staff share knowledge, resolve disagreements (-) relations between RCH and non-RCH workers	<ul style="list-style-type: none"> • Share expertise • Help each other • Communicate with each other • Focus on what is wrong • Relationship with peers
Facility resourcing	(+) satisfaction with supplies and equipment availability; facility condition; ability to deliver quality care.	<ul style="list-style-type: none"> • Satisfaction with drug availability • Rushing to attend to patients
External level		
Community relations	(++) safety and security in the community	<ul style="list-style-type: none"> • Relationship with local leaders • Respect in the community

(++) denotes positive effect; (+) denotes indications of potential positive effect; (--) denotes negative effect; (-) denotes indications of potential negative effect.

4. Health worker productivity

No overall effects on health worker productivity. Productivity decreased in smaller facilities and increased in larger facilities.

Health worker productivity is a measure of the total service output per health worker. The total service output is the total provision of targeted and non-targeted services. The change in utilization of these services was explained above; we observed an increase in the utilization of some targeted services, along with a decline in non-targeted services in dispensaries.

There is a tendency towards a positive effect of P4P on the number of health workers employed in the facilities. For a given service output, a higher number of health workers will reduce productivity.

In smaller facilities (i.e., facilities with up to five health workers), there is a 28% increase in staffing levels. Together with a reduction in non-targeted outputs, this results in a reduction in productivity, despite some increase in the utilization of targeted services.

In larger facilities, there is also a tendency towards increased number of health workers, but the tendency towards increased service output is even stronger, leading to an increase in health worker productivity.

There were concerns from health workers at small facilities being over-worked. It is possible, that the additional reporting tasks associated with P4P were displacing clinical care, and that this displacement was more likely to occur for non-targeted services. The costing study (reported below) found that staff spent substantial amounts of time doing data gathering for P4P and being subject to data verification. This amounted to an average of 2.5 days per month per staff member on data gathering - 5 hours per cycle on verification; 4 hours on performance feedback. This is equivalent to about 17% of each health workers' time every month.

So why did Utilisation Increase – and why was the increase for some targeted indicators and not others?

Targets requiring little effort and/or where constraints can be readily overcome by health workers were more likely to be affected by P4P. Facilities invested considerable effort in trying to meet delivery care targets.

The effects of P4P were mixed, health workers appeared more satisfied with some dimensions of work environment that could affect motivation, and some improvements in facility resourcing – however this did not affect patient satisfaction with services, and experience of care did not improve except for kindness during delivery. Given that most dimensions of quality of care did not increase, and there were only limited effects on aspects of the work environment that affect motivation, the question begs why did utilisation increase?

Our hypothesis is that health workers focus on easy to reach targets.

IPT2 did not demand much effort, as ANC coverage is already high, P4P raised health worker awareness of the need to administer IPT2, and stock out rates of IPT2 reduced significantly as a result of P4P (P4P bonuses were used to pay for these drugs).

*“... With the 25% which is left for facility improvements it **enables the facility to procure medical equipment and supplies that were missing and for those who cannot afford** (clients who fail to buy from the drug shops) they are now able to get these services.”* (FGD with Health Workers, March 2013).

In addition, health workers may have employed strategies to increase ANC coverage, such as the provision of bed nets during ANC and increasing the rate of exemptions for ANC. This, along with the IPT2 target, also explains why ANC coverage increased.

Similarly, increasing institutional deliveries was seen to be an achievable target, and enables health workers to meet 2 targets at once (the delivery target and OPV0). Health workers had the opportunity to encourage women to come for deliveries during ANC. Women may have also been sensitive to the increased kindness of providers during delivery, and information diffusion supported more women to come. Exemptions for delivery costs were also likely to have increased utilisation levels, and this helps explain the observed equity effects on deliveries (with use increasing more among the poor). The process evaluation revealed that a number of strategies were used by health workers to increase service uptake (Box 1). Most of these relate to increasing coverage of deliveries- which is consistent with the effect on deliveries and of services delivered during delivery, such as OPV0.

A variety of system constraints and contextual factors may have prevented achievements in relation to other targets. While there was a significant reduction in ARV stock outs as a result of P4P, the stock out rate remained high (with almost half of facilities reporting stock outs during the past 90 days). National constraints limited supply of ARVs. Providers may have also chosen to prioritise spending on IPT, possibly because this was considered a universal target (the ARV target only being applicable to HIV positive women).

The lack of effect on other vaccines is not tied to stock outs in vaccines, as these were largely available at facilities. This could have been due to issues in cold storage, although attempts were made by facilities to overcome this and this did not prevent an increase in OPV coverage. The lack of effect may then rather be due to difficulties getting children to facilities for additional immunisations beyond those conducted during routine campaigns. The movement of pregnant women to their maternal home after delivery might also affect PNC and early immunisation coverage levels. Indeed, cultural barriers may prevent women from seeking care so early after delivery, and community based PNC may be a target that is more readily achievable by providers and acceptable to communities.

Box 1: Overview of Strategies used by Providers to Meet Targets

- *Community outreach program to sensitize mothers for timely facility visits*
- *Paying TBA to bring women to the facility (5000 Tsh).*
- *Gifts to mothers and children who attended their clinic – (such as Soap, khanga, bed-nets, sweets)*
- *Providing more prompt attention to delivering women*
- *Request support from neighboring facilities when short of vaccines (or in absence of cold storage system)*
- *District managers re-allocating staff to constrained facilities*
- *Evidence that P4P money was used to buy: out of stock drugs, especially Oxytocin; gloves, mops, plastic sheets; install solar panels to facilitate night deliveries.*

Cost of P4P

Time spent gathering data for P4P and data verification is significant and has a significant effect on total implementation costs.

Setting-up P4P took almost a year and cost 70,000 USD in additional payments largely for training activities and the production of P4P design documents. When the time of staff not directly paid to work on P4P, the amount doubles. Payments made for ongoing implementation of P4P in Pwani amounted to an estimated 2.3 million USD over 4 implementation cycles. Half of this was to manage P4P, a third was for payment of incentives and 15% for verification activities. In addition to the direct costs incurred through P4P implementation, P4P also resulted in an almost equal economic burden on the health system. The additional time spent gathering P4P data for reporting alongside the burden of verification activities was estimated to cost the health system an additional 2 million USD in facility and district staff time. The total cost per woman of reproductive age was USD 10 (financial costs) up to USD 20 when full (economic) costs are included.

The process evaluation indicated that health workers sometimes find it difficult to balance clinical activities and reporting/verification.

“Sometimes health workers are too busy attending patients and in such instance they fail to diversify their attention to proper data recording”, (Interview with a national stakeholder, May 2013).

“I think we are doing fine on validation, but sometimes the challenge is for CHMT members to find time to go and do validation on time, this is difficult because sometimes we are tied up with other duties and so we fail to go for data validation”, (FGD with CHMT members, March 2013).

Three roll out scenarios were defined based on the level of support provided nationally: a light scenario and heavy scenario (similar to the pilot model). Roll-out was assumed to be phased over 5 years, and the main differences between the light, and heavy scenarios are the level of central support provided to P4P: the heavy scenario assumes high levels of external support similar to the pilot, and the light assumes the scheme is fully integrated into MOHSW systems with no external support. The heavy scenario assumes that the National Health Insurance Fund (NHIF) remains fund holder. The light scenario assumes that transactions are managed by the NMB bank. The start-up financial costs for the roll out were estimated at around USD 160,000 USD per year for each phase of the roll-out, totalling just over USD 800,000 to cover the whole country. The economic costs of start-up are around twice that amount. The recurrent financial implementation costs would be just under USD 4 million for year 1, increasing by around 4 million for each year of the roll out to a total of USD 18.5 million per year by year 5 at scale under the light scenario. The costs would be almost double under the heavy scenario. The recurrent economic costs under the light scenario would be just over USD 7 million in year 1, increasing to USD 35 million per year in Year 5. The economic costs under the heavy scenario are 10 million USD in year 1, increasing to 52 million USD per year by year 5. The ongoing annual recurrent cost of implementation at scale per woman of reproductive age varies from 0.8-1.6 USD (light scenario) to 1.5-2.2 USD (heavy scenario).

Recommendations

Implementation

- Provide/conduct training on a routine basis for staff to ensure that everyone is aware of P4P and updated on any changes to the design.
- Sustain efforts to ensure that incentives are paid on time and reflect appropriate bonus levels
- Review processes of gathering information and reporting for HMIS so they are user-friendly and efficient.

Design of future P4P programmes

Indicators

- Revisit choice of performance indicators: focus on MCH services vs all essential health services
- *[Utilisation]* Choose lower (rather than higher) coverage indicators as this gives more scope to improve. However, there may be scope for more pro-poor effects when coverage is high.
- *[Utilisation / Motivation]* Ensure targets are achievable by first understanding the expected pathways to change.
- *[Quality- technical]* Incentivise the provision of life saving interventions within service delivery to ensure that increased service use leads to desired improvements in health outcomes.
- *[Quality – experience of care, motivation]* Consider Incentivising facility resourcing (drug stock outs), waiting time, facility condition, and patient satisfaction.
- *[Quality – affordability]* Consider incentivising Community Health Fund coverage (which would also impact on facility resourcing), and exemption rates.

Bonus level

- Consider introducing variations in bonus levels by level of care and facility ownership type.
- Examination of the balance between health worker versus facility level bonuses.
- Bonus payments may need to be increased over time to sustain their effects.

Supplementary interventions to maximise the effect of P4P

- *[Motivation; quality]* Provide additional basic resources/health system strengthening to increase health worker opportunity to perform - P4P should not be expected to transform the system.
- *[Motivation, quality]* Adequately financing & ensuring routine supportive supervision at all levels.
- *[Motivation; quality]* Encourage supervisors to observe clinical practice and give feedback on clinical quality of care as well as patient-provider interactions.
- *[Motivation, quality]* Build performance appraisal into the supervision system to enhance the career path of health workers and opportunities for promotion.
- *[Motivation]* Health workers need to feel hard work is rewarded, attention to training opportunities and other working allowances is also necessary.
- *[Quality]* Provide/organise training on inter-personal relations and how to interact with patients to help improve patient experience of care.

Management

- *[Cost]* Those leading the process of rolling out P4P, should reflect on how to achieve leaner but more effective management of the P4P process. Alternative options for verification may be examined and evaluated in relation to data quality.
- *[Process]* Consider the role of existing governance structures at all levels (Health facility governing committees; Counsel Health Service Boards).

Data gathering and verification

- *[Process; cost]* – Efforts to ensure reliable and complete HMIS data are generated should be encouraged as this is central to the success of P4P. The cost (in terms of staff time) of recording, assembling and auditing such data should not be under-estimated.
- *[Process]* HMIS trainings need to be ongoing, periodic, hands-on, financially feasible, and adapted to context.
- *[Process]* Ensure all P4P indicators are included in the routine HMIS system*
- *[Process]* Require effective communication strategies in place for timely communication of changes to design over time which should be minimized as much as possible)
- Part time staff at lower level facilities may be necessary to oversee data gathering/reporting and verification to ensure this does not deflect from health worker capacity for service delivery.
- *[Process; cost]* – Lighter approaches to verification may be feasible than what was piloted in Pwani. It is recommended that in the roll-out, the light and heavy models are piloted in different regions and the resulting data completeness and quality assessed.
- *[Process]* – Strengthen community monitoring systems – monitor patient experience, community felt needs.

Monitoring and Evaluation

- Conduct on-going monitoring in relation to spill-over effects, especially on non-targeted services in dispensaries; waiting time of services; patient service satisfaction; patient costs; long-term effects of service use, quality and motivation; and the impact of P4P reporting and verification on health workers and manager's time.