

IMPROVING QUALITY OF CARE THROUGH PAYMENT FOR PERFORMANCE



POLICY BRIEF

December 2016

Examining effects on the availability and stock out of essential drugs, supplies and equipment in Tanzania



Essential drugs, supplies and equipment are key to delivering quality health services. In low and middle-income countries (LMICs), they are often unavailable in public facilities due to inadequate budget allocations or inefficient procurement and supply systems. When drugs and supplies are out of stock, patients must purchase them in private pharmacies and incur potentially substantial treatment costs.

Payment for Performance (P4P) has been identified as one potential strategy to improve access to life-saving drugs and supplies for reproductive, maternal, newborn and child health (RMNCH) by the recent United Nations Commission on Life-Saving Commodities. P4P is a purchasing mechanism that provides monetary incentives to health providers for achieving pre-defined performance targets. It is assumed that P4P can increase the availability of drugs and supplies by rewarding services that require their use, and by requiring that a share of incentive payments be invested in improving services, through for example, efforts to reduce stock-outs.

P4P schemes are currently being implemented in over 30 LMICs, with many countries scaling up nationally; however, there is sparse evidence about whether P4P improves the availability of drugs, supplies and equipment. RESYST research has examined the effect of P4P on the availability of drugs, supplies and equipment linked to the provision of RMNCH services in Tanzania, and assessed how these effects differed across facilities. The study was carried out as part of an evaluation of a P4P scheme in Pwani region, Tanzania.

Key points

- A lack of drugs and medical supplies, and poor functioning equipment are a common problem in many health facilities in low and middle-income countries.
- To overcome this problem, some countries are experimenting with payment for performance (P4P) schemes, which have the potential to reduce stock-out rates and improve the availability of drugs, supplies and equipment.
- RESYST research in Tanzania found that a P4P scheme led to an increase in the availability, and a reduction in the stock-out rate, of drugs and medical supplies for maternal and child health services. The effects were greater in facilities with poorer catchment populations and facilities in rural districts.
- P4P can improve the availability of medical commodities under certain conditions, including: financial autonomy at facility levels; incentivising a package of care that requires use of medical commodities; and, having both facility and district level incentives.



About the P4P scheme in Tanzania

P4P in Tanzania rewards health workers and their managers for achieving performance targets related to RMNCH services. At the facility level there are several RMNCH service coverage targets, some of which relate to the provision of medicines during care (e.g. pregnant women receiving at least two doses of intermittent preventive treatment for malaria during antenatal care).

Facility staff receive a share of the bonus payment (90% of the total for hospitals, 75% for health centres and dispensaries) and the remaining funds are used for facility improvement such as the procurement of essential drugs.

District and regional managers are rewarded based on the performance of the facilities within their areas, and for reducing the proportion of facilities reporting stock-outs of essential drugs and supplies.

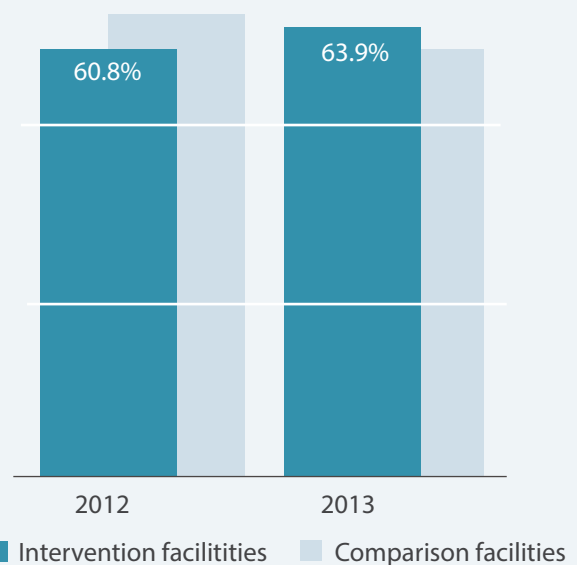
Research findings

P4P effects on the availability of essential drugs, medical supplies and equipment

Prior to the start of the P4P scheme, essential RMNCH drugs and medical supplies were available in less than two-thirds of the facilities surveyed.

P4P led to an increase in the availability of essential drugs by 8.4 percentage points (Figure 1) and an 8.3 percentage point increase in the availability of medical supplies (Figure 2) compared to non-intervention facilities, which experienced a decrease in both. However, levels remain low even after the programme was introduced.

Figure 1: Availability of drugs



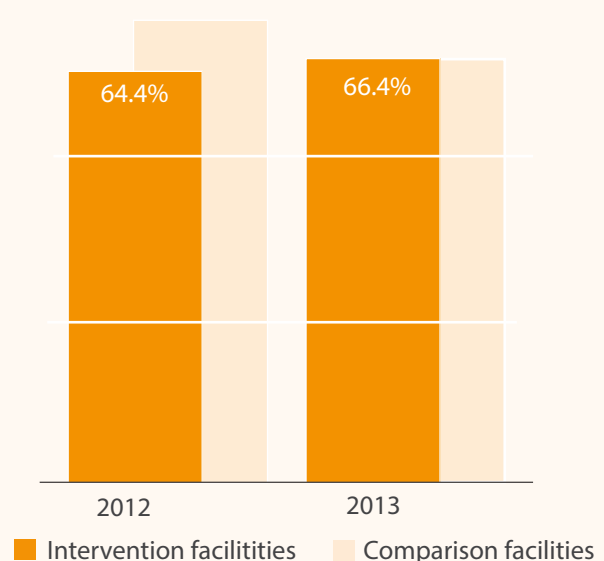
Research methods

Data was used from a survey of 75 facilities (including hospitals, health centres and dispensaries) in all seven districts of Pwani region and 75 facilities from four comparison districts that were not implementing P4P.

Data were collected prior to the first incentive payment in January 2012 and 13 months later. The survey captured information about the health facility, the availability of a list of 37 essential drugs, 11 medical supplies and 16 equipment items on the day of the survey, and whether drugs and supplies had been out of stock for at least one day in the 90 days preceding the survey.

P4P effects were identified by comparing changes in outcomes (availability and stock-out rate) over time between facilities in intervention and comparison areas. The research also considered whether these effects differed by facility location, level of care, facility ownership and socio-economic status of the facility's catchment population.

Figure 2: Availability of medical supplies



P4P was not associated with any changes in the availability of equipment (Figure 3). This may be because the cost of equipment is relatively high compared to drugs and medical supplies, and resources may not have been sufficient to purchase these items.

Figure 3: Availability of equipment



P4P effects on the stock-out rate of essential drugs and medical supplies

Prior to the start of the P4P scheme, 43% of facilities reported stock outs of essential drugs and 40% reported stock outs of medical supplies.

P4P resulted in a 14 percentage point reduction in the stock-out rate of drugs (Figure 4) and a 13 percentage point reduction in the stock out of medical supplies (Figure 5) in the intervention facilities, compared to the non-intervention facilities.

For supplies linked to vaccination and family planning services, the stock out rate reduced, but there was no effect on the availability of these items.

Figure 4: Stock out of drugs

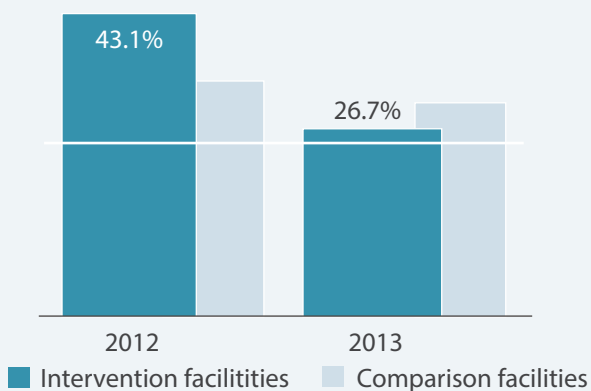
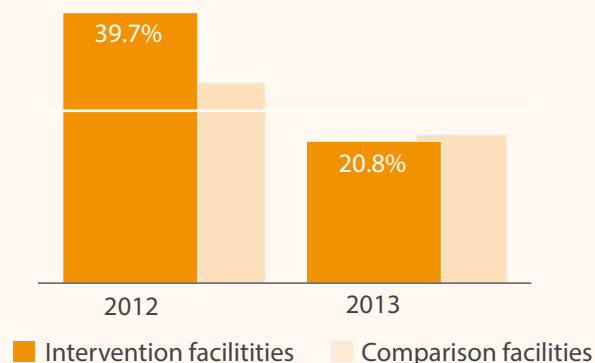


Figure 5: Stock out of medical supplies



Positive effects on the availability of drugs not included in the P4P scheme

The availability and stock-out rate for antibiotics were affected by P4P, even though these drugs were not clearly linked to service targets. However, district managers did get rewarded for reducing the stock out rate of all essential drugs.

Greatest effects on poor and rural populations

The reduction in the stock-out rate of drugs was up to 25 percentage points greater in facilities with the poorest catchment populations, compared with those with the least poor populations.

The effect of P4P on the availability of drugs was 10 percentage points higher in rural facilities compared with urban facilities; similarly, the availability of medical supplies was 22 percentage points higher in rural facilities.



Related resources

- Binyaruka, P. and Borghi, J. (2016), **Improving quality of care through payment for performance: examining effects on the availability and stock-out of essential medical commodities in Tanzania**. *Trop Med Int Health*. doi:10.1111/tmi.12809
- RESYST video: The health system effects of pay for performance in Pwani region, Tanzania
<http://resyst.lshtm.ac.uk/resources/p4pvideo>

Further information

- Pay for performance: a health systems perspective webpage:
<http://resyst.lshtm.ac.uk/research-projects/P4P>

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Conclusions and recommendations

P4P can increase access to drugs and medical supplies, especially in poor, rural areas. Further, the increased availability of drugs and medical supplies will improve the quality of care and make services more acceptable, effective and affordable for patients.

Several factors contributed to these positive effects. Firstly, some of the financial rewards from P4P were invested into the facilities to improve service delivery. Secondly, providers had autonomy on how to use the funds at each facility, ensuring that money was spent where it was most needed. Thirdly, incentivising district managers, as well as facility workers, was important as district managers influenced the allocation and procurement of drugs and supplies.

Recommendations for policy makers

- While P4P can help reduce short-term stock outs, the national procurement and supply system should also be revisited, together with adequate budget allocations, for effective procurement and supply of commodities.
- Efforts are needed to increase other sources of funds for providers to procure supplies and drugs, such as the community health insurance scheme, as this provides an alternative to government allocations which may be insufficient, and inequitable out-of-pocket payments.
- Incentivising health care managers as well as providers is important to maximise the effects of incentives on the availability of drugs and supplies.

