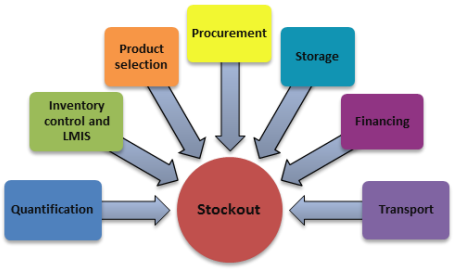
USAID | DELIVER PROJECT
FROM THE AMERICAN PEOPLE

Technical Update

Performance-Based Financing:

Examples from Public Health Supply Chains in Developing Countries



Many factors may influence stock availability at the service delivery point. In some cases, performance-based financing can help eliminate bottlenecks and ensure commodity availability.

Performance-based financing may help solve performance problems; however, it is rarely used in public-sector supply chains.

MAY 2012

This publication was produced for review by the U.S. Agency for International Development. It was prepared by the USAID | DELIVER PROJECT, Task Order 4.

U.S. Agency for International Development
www.usaid.gov

Introduction

Performance-based financing (PBF) can be defined as cash or non-monetary benefit that is given for measurable actions or achievement of a defined performance target. In theory, PBF could help strengthen supply chains by linking performance to rewards. PBF is often used in commercial supply chains; it is increasingly being used to improve health care service delivery worldwide.

Experiences from—

- Afghanistan
- Ghana
- Haiti
- Liberia
- Nicaragua
- Rwanda
- Tanzania.

However, until now, only limited applications have been used in public-sector supply chains. This is true for interventions aimed at supply chain professionals and institutions, and also for the supply chain–related performance of general health care workers. While potentially effective, the need to protect against perverse incentives that could harm patients further complicates the implementation of PBF interventions in public health settings. To learn more about the PBF work being done in supply chain management in the public-health sector around the world, the USAID | DELIVER PROJECT reviewed the current literature and compiled a compendium of real-life examples and experiences of how PBF has been applied. This review focused on PBF incentives in the public sector.

Methodology

To collect examples of PBF schemes in public-sector supply chain management, the USAID | DELIVER PROJECT conducted a desk-based literature review. We searched online bibliographies for published and unpublished studies on PBF schemes that included supply chain indicators. We also followed-up with any online references to PBF schemes related to health care; we examined them to determine if they had included any supply chain–specific indicators. However, because we found few documented examples of this work being done, we supplemented the literature review with semi-structured interviews of key contacts with knowledge of PBF in international public-sector health supply chains. Dating back to 1995, our contacts gave us context and documentation for nine examples of PBF when it was applied in this type of setting. Programs were identified in Africa, Asia, and Latin America; and they were supported by a variety of donors including the World Bank, United Nations Populations Fund (UNFPA), Asian Development Bank (ADB), Nordic Development Fund (NDF), U.S. Agency for International Development (USAID), and the Bill and Melinda Gates Foundation.

Findings

Supply Chain Performance Areas Addressed by Performance-Based Financing

One important element of performance-based financing for supply chains is identifying performance-related problems and aligning incentives along the entire supply chain. Because the examples cover a variety of countries, the specific context that gives rise to the introduction of PBF varies. However, the bottlenecks PBF is being used to redress can be grouped into two areas: (1) problems in logistics information (Ghana, Nicaragua, Rwanda); (2) problems in commodity availability, resulting from conflict (Afghanistan, Haiti, Liberia); or geographical constraints (Tanzania). While the examples are varied, to determine what currently exists in the field—as well as potential opportunities for improving the existing practices or new avenues to explore—this literature review looked at some of the shared elements.

Quality, timeliness, and accuracy of logistics information

Nicaragua is engaged in a nationwide effort to improve logistics management information systems (LMIS), improve how the LMISs measure stock status, and increase drug availability. The country scores each of their 17 district health management units on 20 indicators, which pertain to the operation of the automated LMIS and the use of logistics data. High-scoring units receive small *rewards,* of computer and other equipment.

In Ghana, to ameliorate problems in data quality and accuracy, the Focus Region Health Project (FRHP) set up a competition between regions. They measured timely, accurate submission of data, as well as trainings on the reporting system. FRHP awarded equipment to the region that performed best in these areas.

Rwanda also had problems with the timely submission of quality reports. The Rwanda Community Performance-based Financing Program sought to improve this situation through pay-for-reporting incentives that were given directly to cooperatives of community health workers to benefit the individual worker. This example is one of many in Rwanda. To help restore quality care in the wake of the civil war/genocide, the country has implemented PBF across various areas of the health care system.

Commodity availability

Because of poverty, conflict, and natural disasters, the health care systems in Haiti, Liberia, and Afghanistan are weak; nongovernmental organizations (NGOs) provide a substantial portion of health care services. With donor support, these countries have used performance-based contracting with NGOs for their

provision of basic health services, including family planning. In each country, drug and commodity availability is measured at the facility level; it is only a small part of the indicators assessed. In Liberia and Afghanistan, NGOs are able to earn a bonus based on adequate performance. In Haiti, NGOs with government contracts have had part of their historical budget withheld. If they reach pre-established targets for service delivery, NGOs can earn back the withheld part of their budget and can earn additional bonuses.

Transportation costs incurred by drug shop owners may reduce commodity availability at drug shops in rural Tanzania because wholesalers do not distribute in rural areas. As a result, drug shop owners prioritize low-cost medicines that sell quickly, neglecting higher-value life-saving commodities. A performance based contract incentivizes wholesaler distribution of essential medicines in three rural districts. Wholesalers that achieve 95 percent commodity availability—determined by random monthly spot checks—receive a bonus, in addition to the price for the drug, which is established during the contract bidding process.

Emerging Themes in PBF for Supply Chains

Emerging Themes

- Performance problems can elicit PBF responses.
- Rewards within PBF can be both monetary and non-monetary.
- PBF for a supply chain is usually a subset of a larger program.
- Results are not routinely collected.
- Schemes are primarily donor driven.

Performance problems can elicit PBF responses for public-health supply chains. Similar to the commercial sector, the design and implementation of PBF can help identify bottlenecks and align objectives throughout the supply chain. Based on the earlier examples, data inaccuracies and weak infrastructure are two barriers to strong service delivery that have elicited PBF schemes.

Rewards within PBF can be both monetary and non-monetary. While PBF is often called pay-for-performance, many non-monetary ways can be used to compensate people for their work, with the hope that the results will improve. As examples in Ghana and Nicaragua showed, the incentive in those countries was new equipment for the health region. Other non-monetary incentives can include recognition or praise for work well done (through newspapers, newsletters, employee accolades, etc.).

PBF for a supply chain is usually a subset of a larger program. In the programs we studied, supply chain indicators were part of a larger PBF scheme, usually aimed at improved overall health outcomes. This is also reflected in the level where the interventions are aimed. Despite having different contextual issues and bottlenecks, nearly all examples in the review are of programs targeting the facility level of the supply chain. Additional exploration of PBF is possible at the higher levels—i.e., the central- and district-levels. Because aligning incentives along different tiers of the system is vital to successful PBF, a scheme focused specifically on the supply chain may address these previously overlooked tiers.

Results are not routinely collected. We were unable to find any documented results or assessments that illustrate the impact of PBF on supply chain functions. This is a key knowledge gap, especially as pay-for-performance increases in popularity. Because a significant level of effort and funding is needed to monitor the indicators associated with any PBF scheme, it would be useful to have data that shows the success of such initiatives before attempting to implement a PBF program.

Schemes are primarily donor driven. While a variety of external donors have taken an interest in PBF, developing country governments are less willing to contribute financial resources to PBF for supply chains. External donors, not the MOH, funded all the programs that we reviewed. Significant costs are associated with implementing PBF, especially for routine monitoring; therefore, having country buy-in is essential if this type of initiative is to be sustained. Rigorous longitudinal analysis of these programs may show that these schemes are effective and may, in turn, build country interest in and ownership of PBF programs.

For More Information

We collected standardized information from each supply chain example and we collated the information in a common template that highlights the amount and source of funding, duration and scope of the PBF scheme, and supply chain–specific indicators, among other items. This information can be found on the USAID | DELIVER PROJECT website (http://deliver.jsi.com/dhome/). This brief was prepared for the USAID | DELIVER PROJECT by a team that includes Ellie Bahirai, James Rosen, Brian Serumaga, and Emma Stewart.

Sources

Basinga, P., P. J. Getler, A. Binagwaho, A. L. B. Soucat, J. Sturdy, and C. M. Vermeersch. 2011. "Effect on maternal and child health services in Rwanda of payment to primary health-care providers for performance: an impact evaluation," *The Lancet*, 377: 1421–28.

Brennan, Richard J. June 2011. "Use of Performance-based Contracting to Improve Health Care in Liberia," PowerPoint Presentation. Global Health Council: Washington, D.C.

Eichler, R., and R. Levine. 2009. *Performance Incentives for Global Health: Potential and Pitfalls*. Washington, D.C.: Center for Global Development.

Eichler, R., P. Auxila, and J. Pollock. April 2001. Performance-Based Payment to Improve the Impact of Health Services: Evidence from Haiti. *World Bank Institute Online Journal*. Retrieved December 2011 from http://keewu.com/IMG/pdf/14_World_Bank_Online_Journal_-_PBF_to_Improve_Impact-Haiti.pdf.

Ghana Health Service. Sekondi-Takoradi Metropolitan Health Directorate. 2011. Unpublished.

Hansen, P. M., D. Peters, H. Niayesh, L. P. Singh, V. Dwivedi, and G. Burnham. 2008. "Measuring and managing progress in the establishment of basic health services: the Afghanistan Health Sector Balanced Scorecard," *International Journal of Health Planning and Management*, 23: 107–117.

Morgan, L. April 2011. *Results Based Financing for Health: When The Hustle Gets Rough: Making Performance-Based Contracting Work in Liberia*. Retrieved December 2011, The World Bank. http://www.rbfhealth.org/rbfhealth/system/files/RBFinLiberia.pdf

Naimoli, Joseph F., and Petra Vergeer. April, 2010. *A series of snapshots of experiences in verifying performance linked to financial incentives for results-based financing (RBF) programs from selected countries*. Retrieved December 2011, The World Bank http://www.rbfhealth.org/rbfhealth/system/files/RBFVerification_at_a_glance.pdf.

Organization for Economic Co-operation and Development (OECD). 2011. "Contracting Out Government Functions and Services in Post-Conflict and Fragile States: Examples from the Health Sector in Latin America and the Caribbean." Partnership for Democratic Governance. Workshop discussion paper. OECD.

Peters, D., A. A. Noor, L. P. Singh, F. K. Kakar, and P. M. Hansen. 2007. "A balanced scorecard for health services in Afghanistan," *Bulletin of the World Health Organization*, 85: 146–151.

Vecchione, T. 2011. "Performance-Based Incentives for Global Health Supply Chains: Research and Recommendations". Commodity Security and Logistics Division, Office of Population and Reproductive Health, US Agency for International Development (USAID). Unpublished.

Vergeer, Petra (World Bank), Deirdre Rogers (JSI), Richard Brennan (JSI), and Shiril Sarcar (JSI). June 2010. The World Bank. *Identifying Indicators for Performance-Based Contracting (PBC) is Key: The Case of Liberia*. Retrieved December 2011, from The World Bank. http://www.rbfhealth.org/rbfhealth/system/files/Liberia_case_study.pdf.

The authors' views expressed in this publication do not necessarily reflect the views of the U.S. Agency for International Development or the United States Government.

USAID | DELIVER PROJECT

John Snow, Inc.

1616 Fort Myer Drive, 16th Floor

Arlington, VA 22209 USA

Phone: 703-528-7474

Fax: 703-528-7480

Email: askdeliver@jsi.com

Internet: deliver.jsi.com