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Public-Private Partnership to Expand the Reach of Medical Laboratory Services

This brief is intended to provide governments, public health practitioners, ministries of health, health care and laboratory facility managers, and health care providers with examples of existing PPP mechanisms that can be used to improve and expand the delivery of medical laboratory services. It also outlines a suggested process by which laboratory service contracts or other PPP arrangements can be designed and implemented.

Reliable access to high-quality medical laboratory services is essential for the successful prevention, diagnosis, and treatment of disease. Despite significant government and donor investments to improve the quality and coverage of diagnostic services in resource-poor settings, many medical laboratories in the developing world are overwhelmed by high patient volumes, limited in capacity, and create bottlenecks in the scaleup and decentralization of national health services, especially in remote rural areas.* Governments, the public health community, and health service providers themselves have long acknowledged the need to strengthen diagnostic and laboratory monitoring services as an essential component of improving health service delivery. However, laboratory managers and policymakers are often confronted with limited, expensive, and complicated options for strengthening and expanding laboratory services.

In settings where the private health sector offers sufficient human, logistic, or equipment capacities to deliver laboratory services, public-private partnership (PPP) mechanisms may be employed at the national or local level to strengthen the provision of laboratory services. Examples of partnerships in Tanzania, Kenya, and South Africa demonstrate how PPPs can reduce public sector resource constraints and make efficient use of existing in-country private sector laboratory capacity. In addition, PPPs reinforce the public sector's stewardship and regulatory oversight of the health system, while tapping into the service delivery strengths of the private sector. In a number of other countries, experience with PPPs has been hampered by weak communication and collaboration between the health sectors, lack of a policy to guide partnerships in the laboratory sector, limited awareness of how to establish PPP mechanisms (i.e., outsourcing or contract design), or insufficient information to help identify potential partners.

> Successful public-private partnership can ensure that diagnostic/health laboratory services are always available to those requiring them, and above all, can create a space in which health facilities, providers, and stakeholders from all sectors can work together for the benefit of all patients.
>
> *– Mr. Sabas Mrina, President of the Medical Laboratory Scientists Association of Tanzania*

A number of challenging questions face countries with limited laboratory capacity. Should governments invest in new laboratory equipment or partner with existing private providers to provide the service? To what extent can the private health sector complement public laboratory services in improving access to high-quality laboratory services? What is the most appropriate mechanism to use in mobilizing PPPs in the laboratory sector? Such questions require an assessment of national laboratory service needs, knowledge of the country's existing public and private laboratory resources, and an understanding how PPP mechanisms can strengthen the provision of laboratory services specifically. This brief aims to provide valuable information to readers pursuing such questions.

* Mbopi-Keou, F., B. Sagnia, J. Ngogang, F.F. Angwafo III, V. Colizzi, L. Montagnier, and L. Belec. 2012. Validation of a single-platform, volumetric, flow cytometry for CD4 T cell count monitoring in therapeutic mobile unit. *Journal of Translational Medicine*. 10:22

SHOPS
Strengthening Health Outcomes *through* the Private Sector

Types of PPP Arrangements

Health stakeholders in both the public and private sectors interested in forming PPPs for medical laboratory services should begin by gathering information on the location, scope, and availability of existing diagnostic services, equipment, and supplies. For instance, this information can help with identifying medical laboratories offering high-demand diagnostic services that are overwhelmed or not available at the stakeholder's home facility. In other instances, laboratory partners could be identified to provide services during peak periods or other times when a partner facility is unable to meet client demand. Laboratories with excess equipment capacity may also use such information to offer or promote their services to high-volume laboratories requiring additional capacity. Once stakeholders have identified their needs and a laboratory service provider with whom they may want to collaborate, they should consider various PPP arrangements to match their needs and available resources. This table presents several examples of PPP mechanisms that can be considered to engage laboratory partners and expand service delivery in the laboratory sector.

Types of PPP Arrangements for the Laboratory and Diagnostics Sector

Type of Arrangement	Example of Arrangement	Pros and Cons
1. Outsourcing of Laboratory Services		
Referral arrangements without payment	A health care provider signs an informal agreement, usually in the form of a memorandum of understanding (MOU) to refer patients to laboratory service providers that have been pre-selected for their proximity, quality, or willingness to offer discounts to referred patients. This arrangement is useful when a provider/facility (a) cannot offer a specialty diagnostic service; (b) prefers not to purchase additional equipment or infrastructure; or (c) when patients can reasonably access either provider. An MOU is generally not legally enforceable and does not involve the exchange of money between the health care provider and the laboratory service provider. MOUs are useful because they are simpler and more flexible than contracts, but can still help partners develop a common framework for achieving shared laboratory service goals. Patients are typically responsible for paying the laboratory service providers directly for the services they receive. This arrangement works best when patients can claim benefits from publicly or privately sponsored health insurance, or are able to pay out-of-pocket. This kind of referral arrangement does not typically benefit low-income or impoverished clients because it requires either being covered by a health financing scheme or having the ability to pay out of pocket for the service.	**Pros:** • Expands availability of laboratory services for a group of clients without needing to purchase equipment or other infrastructure • Expands reach of specialty services for patients with ability to pay • Simple to administer • Receiving laboratory receives more clients **Cons:** • Limited formal controls after patients are referred; potential for patient loss to follow-up or disruption in continuity of care • Referred clients may not have ability to pay for the services offered at the receiving facility

Type of Arrangement	Example of Arrangement	Pros and Cons
1. Outsourcing of Laboratory Services		
Purchasing Agreements	Contracting out via simple service contracts or other forms of purchasing agreements allow local government authorities (LGAs) or facilities to make use of existing private sector resources to fill service gaps or provide additional capacity. Purchasing agreements are less formal than comprehensive service level agreements. In this model, LGAs sign purchase agreements or simple service contracts with private sector providers to deliver services in exchange for payment from the LGA on an ad hoc basis. Careful analysis of the local context, available resources, supply, and demand are necessary before deciding if contracting out will be preferable to direct public provision. Local relationships between the purchaser and provider will be an important determinant in the success of the contracting process. Furthermore, a clear understanding of the terms and conditions of the contract is essential before final implementation. Clear payment and reimbursement mechanisms are also essential, and will minimize the time required by both parties to maintain the contract post-procurement. For example, a reimbursement may be arranged where the laboratory service provider invoices the purchaser on a regular basis after the services have been delivered (e.g., monthly). In contrast, under a pre-payment arrangement, the purchaser pays for a specified number of laboratory services before those services have been delivered.	**Pros:** • Expands availability of laboratory services without needing to purchase new equipment or other infrastructure • Increases the availability of services, even for low-income populations because the LGAs pay for services rendered. • More flexible than executing an SLA under the national policy **Cons:** • Less formal and standard compared to an SLA • Might require frequent renegotiation of terms • Still requires robust detail
Service level agreements (SLAs) between a government and a private provider	SLA mechanisms have been used by national or local health authorities in a number of settings in order to expand health service delivery via PPPs with a variety of private (i.e., non-state) providers. In Tanzania, for example, the National Health Service Act authorizes the Ministry of Health and Social Welfare to establish coordinating mechanisms between public and private health actors. SLAs serve as long-term purchasing agreements for a basket of services approved by the government. Health authorities that have identified laboratory service providers offering needed diagnostic services in their region may include laboratory services in existing SLAs or sign new SLAs with these laboratory service providers. LGAs may structure SLAs using a reimbursement or pre-payment method (as above). In this situation, funding from the LGAs may wholly, or in part, subsidize patients' own contributions toward financing their laboratory service needs.	**Pros:** • Increases access to essential diagnostics without needing to purchase new equipment or other infrastructure • Formality of SLAs gives government control and predictability of budgetary expenditures • Private sector receives new source of revenue **Cons:** • Relies on LGAs' budgetary constraints • Private sector is susceptible to changes in LGA budget allocations • Private sector costs are likely to differ from public sector costs, which makes budgeting difficult

Type of Arrangement	Example of Arrangement	Pros and Cons
2. Outsourcing of public services	The public sector provides in-kind subsidies to private providers (e.g., free test kits, diagnostic reagents, etc.) so that private providers can deliver services on behalf of the public sector. This strategy is common for extending the reach of national programs—especially for high priority illnesses such as HIV and tuberculosis—by leveraging private sector infrastructure. While these commodity subsidies are typically provided on the condition that patients be exempted from payment, the private provider may be allowed to charge an administrative or dispensing fee to assist in recovering staff or overhead costs associated with providing the service. Private providers often benefit from staff training, supportive supervision, and marketing to new clients.	**Pros:** • Increases access to essential health services • Not dependent on financial transactions between purchaser and provider **Cons:** • Private providers incur costs (i.e., staff time and overhead) that are typically not reimbursed • The public sector must budget for in-kind subsidies
3. Equipment placement	Placement of laboratory equipment by private companies in public facilities is the most common form of PPP in East Africa. In this model, a private company gives, leases, or loans equipment to a public facility, and trains staff how to operate it at no cost. In exchange, the public provider commits to the regular purchase of an agreed-upon minimum quantity of reagents from the same company. The public provider benefits because it gains access to essential equipment. Likewise, the private provider or company benefits from the ongoing sale of reagents and equipment maintenance.	**Pros:** • Increases access at public facilities • Eliminates need for facility expenditure on high cost equipment • Private sector receives stable revenue **Cons:** • Forecasting the demand for reagents is required before initiating the agreement • Maintenance is dependent on private sector
4. Transport of specimen	A company (typically in the commercial private sector) is contracted to courier lab samples from a collecting facility to a partnered processing facility. This arrangement may be particularly useful if several small facilities work with the same transport company to collect and batch samples, thereby driving down costs to individual laboratories.	**Pros:** • Specimens may be collected at sites different from where they will be processed • No need for large capital purchase of transport • Small groups of samples from multiple facilities could be batched and transported collectively (multiple partners) **Cons:** • Private courier costs may be high • Results may be delayed due to third party transport • May be logistically challenging if small number of samples
5. Pooled procurement	Government procurement officials coordinate with private laboratories to negotiate discounted prices for quantities of reagents.	**Pros:** • Ability to negotiate discounts from suppliers **Cons:** • Requires consistent coordination

Type of Arrangement	Example of Arrangement	Pros and Cons
6. Training	Private sector institutions are paid to train public sector technicians (or vice-versa).	**Pro:** • Public and private laboratory sectors can exchange knowledge; build capacity in both sectors • Laboratory professionals (public or private) receive training **Con:** • Technicians may need quality supervision after the training period for skills that may not be available in the public sector

Once laboratory partners have selected a mechanism for collaboration, documenting the arrangement is important in order to avoid confusion and to adhere to national legal requirements. Any collaboration that involves financial transactions requires contracts that legally document the processes, services, and payments that will be exchanged between the partners. While MOUs might be drafted without the involvement of legal counsel, authoring contracts requires a lawyer to help partners understand how the terms of the contract are legally outlined and enforced. Failure to set clear processes for payment, pricing, and dispute resolution processes may threaten the operations of both the purchaser and the service provider.

For example, purchasing agreements or SLAs should be carefully considered in relation to the resources and contract management capacity available to LGAs. This type of arrangement greatly depends on consistent availability of public funding allocated to LGAs, as well as health stakeholders who have the capacity to manage contracts. As such, it is important that policymakers are involved in the development of such contracts, and that PPP arrangements align with national resource and service mobilization efforts.

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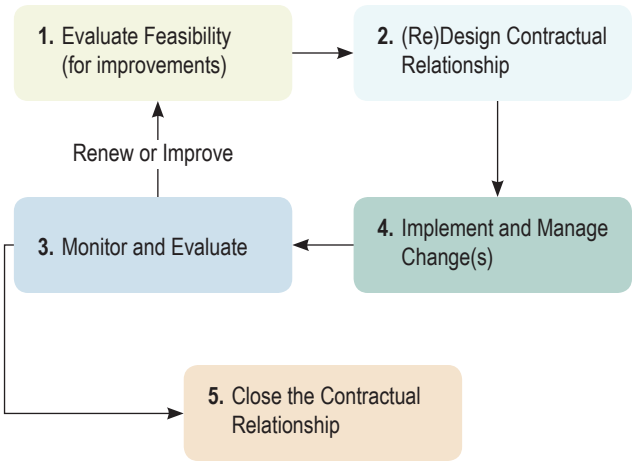
Using the Contracting Out Lifecycle to Design a PPP

In this figure, the Contracting Out Lifecycle Framework illustrates five key stages of a contractual relationship, which is also applicable for the design of an MOU or informal partnership agreement. SHOPS adapted the framework from the World Bank Toolkit on Performance-Based Contracting to simplify and organize the oftentimes complex experience of a contractual relationship.

The Contracting Out Lifecycle Framework



Stage One: Evaluate Feasibility

In the first stage of the contracting out lifecycle, stakeholders should evaluate the feasibility of entering into a contractual arrangement for laboratory service referral, purchasing, or other collaboration. Information gathering to determine laboratory service needs and to identify potential partners is a critical first step.

While evaluating feasibility, potential partners may start by answering the following questions:

- What are my organization's laboratory service needs?
- Does my organization frequently receive requests from clients for certain diagnostic tests that I do not offer?
- Does my organization have to turn clients away because too many clients are asking for the same laboratory service?
- Are my current arrangements with laboratory service providers sufficiently documented and working properly?
- Can collaboration with an external laboratory provider reduce or eliminate the financial requirements of new laboratory infrastructure or human resources at my own facility?

If, after addressing these questions, potential partners believe that they could mutually benefit from a PPP, they would then enter into the second stage of designing a contractual relationship.

Stage Two: (Re)Design Contractual Relationship

In designing a new contract (or redesigning an existing one) for laboratory services, the purchaser and provider should define the payment of services to be delivered and note any expectations regarding the quality of services. These considerations should be noted in a request for proposal, or similar document, which includes instructions to the bidders on how to prepare their bids, the criteria by which contractors will be selected, the terms of reference, and the draft contract. In almost all situations, it should be possible to complete a competitive bidding process for a formal contract in six months.

How a contract is designed affects what motivates partners to implement the contract. For instance, in a reimbursement arrangement, the laboratory service provider invoices the purchaser on regular basis after the services have been delivered. There is little incentive for the laboratory service provider to control cost in this arrangement. In contrast, in a pre-payment arrangement, the payment may be made at the start of every month and may cover all the laboratory tests or services expected to be provided during that month. In this arrangement, the laboratory service provider may have the incentive to limit service cost to stay within the monthly allocated pre-payment.

Stage Three: Implement and Manage Change

To implement the contract, stakeholders must train staff to follow the billing processes entailed in the contract and ensure that they have adequate resources. Purchasers should ensure they have adequate budget available to pay for their services. Laboratory service providers should ensure that they have the equipment in good condition and have an adequate supply of reagents needed to deliver the services at the level of quality agreed upon in the contract.

Stage Four: Monitor and Evaluate

Laboratory service contracts should be monitored to ensure that the services being delivered are of an adequate quality and that service providers are being paid accurately. Stakeholders should monitor the implementation of the contract on a regular

basis (e.g., monthly), and have designated meetings with one another (e.g., quarterly) to solve any issues or challenges that might arise in the implementation of the contract.

Stage Five: Close the Contractual Relationship

Termination or closure of a contract is the last stage of the contracting out lifecycle. Termination refers to the end of a contract before its full performance by the affected parties. Closure of a contract refers to the natural end of the contractual relationship based on the set period or attainment of objectives defined in the contract. A contract should explicitly provide protocols for termination and closure in order to prevent any miscommunication, and to assist in planning for phase-out.

PPPS to Expand the Reach of Medical Laboratory

Public-private collaboration in the laboratory sector through MOUs, purchasing agreements, contracts, or SLAs have the potential to significantly and rapidly improve access to laboratory services across both sectors. LGAs may benefit by expanding the delivery of essential laboratory services through SLAs (or other contracts) with nonprofit, faith-based, or commercial laboratories operating in their area. Laboratory service providers may benefit by gaining access to higher patient volumes, or receiving supplies, equipment, or training from their partner. Lastly, patients benefit by gaining access to a larger number of outlets for medical laboratory services. It is also important to note that PPP arrangements do not come without risk. All PPPs should be treated carefully and established through a transparent dialogue and planning process in order to ensure that the partnership meets all stakeholders' needs and goals.

The information in this brief is intended to provide both public and private laboratory stakeholders with examples of existing PPP mechanisms that can be used to improve and expand the delivery of medical laboratory services. As next steps, those interested in developing a PPP in the laboratory sector should:

- **Review** what their facility's short-, medium-, and long-term needs are. These needs can include access to additional laboratory tests and services, more efficient referral mechanisms, or a desire to provide services to a constrained partner.
- **Identify** nearby facilities or partners in their area that have the capacity to meet these needs. Initiate dialogue with the facility managers and owners to gauge their interest in developing a PPP. Reach out to your local LGA or laboratory association if you require assistance in initiating the process.
- **Follow** the steps of the Contracting Out Lifecycle Framework to develop and implement your new contractual arrangement. Involve policymakers, legal counsel, or other key players as appropriate to your PPP mechanism of choice.

Kate Holt/Africa Practice

More Information

The following sources provide more information on engaging the private health sector, contracting, and other forms of public-private partnerships for health:

- The Strengthening Health Outcomes through the Private Sector (SHOPS) project website *www.shopsproject.org/about/what/contracting-out*
- Designing Public-Private Partnerships in Health (a SHOPS project publication) *http://shopsproject.org/resource-center/designing-public-private-partnerships-in-health*
- The International Finance Corporation's Healthy Partnerships Report *www.wbginvestmentclimate.org/advisory-services/health/healthy-partnerships-page.cfm*
- The World Bank Toolkit on Performance-Based Contracting *web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTHEALTHNUTRITIONANDPOPULATION/EXTHSD/0,,contentMDK:21843326~pagePK:148956~piPK:216618~theSitePK:376793,00.html*

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For more information about the SHOPS project, visit: www.shopsproject.org

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