African Health Diagnostics Platform

Pre-Tender Process Evaluation Technical Report

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Johns Hopkins Bloomberg School of Public Health

International Institute for Primary Health Care, Ethiopia

University of Ghana

Strathmore University, Kenya

Center for Impact, Innovation and Capacity for Health Information Systems and Nutrition, Rwanda











African Health Diagnostics Platform Pre-Tender Process Evaluation Technical Report

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Table of Contents

Table of Contents	4
Abbreviations	5
Executive Summary	6
Introduction	8
Research questions	8
Methods	14
Findings	16
What is the experience with PPPs in AHDP countries?	16
How was the AHDP planned and negotiated?	16
How were actors engaged and managed during AHDP negotiations?	19
Country-Specific Findings	21
Ethiopia	21
Ghana	26
Kenya	31
Rwanda	36
What Are the Unresolved Issues That Threaten the Success of AHDP?	41
Key Messages	41
Recommendations	44
Recommendations for current AHDP countries	44
Recommendations for future AHDP countries	44
Learning agenda	45
Appendix	46

AHDPAfrican Health Diagnostics PlatformBMGFThe Bill & Melinda Gates FoundationCBHICommunity-based health insuranceCHAIClinton Health Access InitiativeCIIC-Center for Impact, Innovation and Capacity for Health Information Systems andHINNutritionEIBEuropean Investment BankGOGGovernment of GhanaGORGovernment of RwandaIIPHCInternational Institute for Primary Health CareKIIKey informant interviewKEMSAKenya Medical Supplies AuthorityKNHKenyatta National HospitalLMISLaboratory Management Information SystemsMOFMinistry of FinanceMOHMinistry of HealthNHIFNational Hospital Insurance, GhanaNHIFNational Hospital Insurance Fund, KenyaOOPOut-of-pocket payment		
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MOHMinistry of HealthNHINational Health Insurance, GhanaNHIFNational Hospital Insurance Fund, Kenya	LMIS	Laboratory Management Information Systems
NHINational Health Insurance, GhanaNHIFNational Hospital Insurance Fund, Kenya	MOF	Ministry of Finance
NHIF National Hospital Insurance Fund, Kenya	MOH	Ministry of Health
	NHI	National Health Insurance, Ghana
OOP Out-of-pocket payment	NHIF	National Hospital Insurance Fund, Kenya
	OOP	Out-of-pocket payment
PPP Public-private partnership	PPP	Public-private partnership
RBC Rwanda Biomedical Center	RBC	Rwanda Biomedical Center
RSSB Rwanda Social Security Board	RSSB	Rwanda Social Security Board
SSA Sub-Saharan Africa	SSA	Sub-Saharan Africa

Abbreviations

Executive Summary

The African Health Diagnostics Platform (AHDP), a partnership between the Bill & Melinda Gates Foundation (BMGF), the European Investment Bank (EIB), and the Clinton Health Access Initiative (CHAI), seeks to improve access to and quality of laboratory services in sub-Saharan Africa, in particular through public-private partnerships (PPPs) between country governments and private laboratory firms. Our consortium was tasked with conducting an evaluation of AHDP in Ethiopia, Ghana, Kenya, and Rwanda, with the aim to generate lessons to inform implementation, and to assess the impact of PPPs on laboratory service outcomes. The overall evaluation combines process and outcome evaluative aspects at different phases of the program.

This report is focused on the process evaluation of the pre-tender/tender phase of AHDP. Specifically, this report provides preliminary lessons and recommendations regarding AHDP negotiations and actor management, within the larger policy and country contexts. In addition to cross-country findings, the report includes country-specific sections that highlight the local nuances that have influenced the process and design of AHDP thus far. This report draws on 63 interviews conducted through January 2022, with further analyses and reflections to follow after formal analyses are conducted.

Key messages

Here, we summarize the key messages that emerge from the evaluation findings.

- 1. PPP design and contracting often require specific steps prescribed by existing regulations, requiring time and commitment in addition to technical assistance and analytical work.
- 2. Given their limited experience with PPPs in the health sector, CHAI and country counterparts are learning by doing in terms of designing PPPs for AHDP.
- 3. All four countries are adopting a phased approach with different modalities.
- 4. Governments do not have an appetite for PPPs that threaten laboratory staff job security.
- 5. Government and private partners have variable levels of interest in the financial instruments offered via AHDP, which vary by context.
- 6. There were mismatched expectations between BMGF/EIB and country governments.
- 7. AHDP partners took into account feasibility and potential for impact in its country selection but gave insufficient consideration to the political economy and health system structure of candidate countries.
- 8. As the country-facing partner, CHAI is in a difficult position at times of balancing responsiveness to government-led process and priorities against BMGF/EIB interests and desire for progress.
- 9. Mistrust between actors and mistrust in the process has influenced the timeline and the nature of negotiations.

- 10. Stakeholder management is necessary, complex, iterative, and time-consuming.
- 11. Substantive challenges resulting from unresolved issues and potential threats are still to come.

Recommendations

Drawing on the results and key messages of the pre-tender process evaluation as well as recommendations from respondents, we present below a series of recommendations—both for current AHDP countries and future ones—and a learning agenda for AHDP.

Recommendations for current AHDP countries	 Move away from imposing timelines on government. Documenting the process is critical for learning and engagement. Recognize and embrace that the time taken to adapt the AHDP model in each country is important, valuable, and not time lost. Depending on need and interest, consider revisiting and updating the feasibility studies conducted at the start of AHDP.
Recommendations for future AHDP countries	 Ensure that any pre-entry analytical work and feasibility assessments include stakeholders familiar with the local context. Global partners need to be open to flexibility in the model and allow for evolution that is responsive to the local context. CHAI's role as broker between countries and BMGF/EIB needs to be clearer. Involving mid-level managers sooner could be helpful. Feasibility studies should be conducted or closely supported by government officials.
Learning agenda	 What are potential metrics of success (beyond PPP deals made)? (e.g., access to care, health outcomes, etc.) a. How do global partners define success? b. How do country governments define success? c. If none of the PPPs progresses, what has been achieved? What kind of support do governments find useful from implementing partners in processes of this nature? (e.g., analytical work, technical assistance, etc.) Country learnings: a. How can countries learn internally from previous agreements (either services for health or other laboratory contracts)? b. How can the data and evidence collected by CHAI be shared with countries and more broadly? c. Explore the potential site visits for new AHDP countries to learn from initial ones.

Introduction

The African Health Diagnostics Platform (AHDP), co-financed by the Bill and Melinda Gates Foundation (BMGF) and the European Investment Bank (EIB), aims to improve access and quality of laboratory services for low-income populations in sub-Saharan Africa (SSA) to contribute to better clinical decision-making, treatment decisions, and improved quality of care. Increasing access to high-quality, cost-effective laboratory diagnostics in the public sector is expected to be achieved by catalyzing greater private sector engagement in the public health sector through public-private partnerships (PPPs).

Our research consortium is conducting an independent evaluation of the AHDP platform in four countries (Ethiopia, Ghana, Kenya, and Rwanda) to generate real-time lessons for partners and assess the project against its objectives. The research consortium is comprised of coinvestigators at Johns Hopkins Bloomberg School of Public Health (JHU), the University of Ghana, the International Institute for Primary Health Care in Ethiopia (IIPHC), Strathmore University in Kenya, and the Center for Impact, Innovation and Capacity for Health Information Systems and Nutrition (CIIC-HIN Ltd) in Rwanda.

One component of this evaluation is the process evaluation, which addresses "how" and "why" questions related to the PPP design, the pre-tender, tender, and procurement process, and the PPP implementation. The process evaluation is intended to assess contextual and actor influences and consider scale-up and sustainability of AHDP beyond the intervention period. The first phase of the process evaluation (pre-tender/tender) is designed to cover a set of largely qualitative questions that concern the design of the PPP, the procurement process, the interests of key actors in relation to the PPP, and early considerations around design and sustainability. This technical report reflects preliminary findings from this first phase of the AHDP process evaluation.

In subsequent sections of this report, we briefly describe the process evaluation in its entirety, and how the findings within this report fit into the broader learning picture. This report provides a first, critical learning opportunity to understand how PPP negotiations have played out in four implementing environments, including actor roles and spheres of influence. We see the findings and recommendations presented here as offering an opportunity for reflection on the AHDP process thus far and allowing key lessons to guide both the ongoing development of AHDP PPP modalities as well as future efforts to leverage PPPs for diagnostics and health service delivery.

Research questions

Table 1 below includes the full list of research questions the process evaluation seeks to address for the pre-tender/tender phase, and the linkages of each question to the revised AHDP theory of change (presented in the AHDP Inception Phase Reports, March/May 2021). For reference, the process evaluation research questions for the implementation phase have been included in the Appendix. Because the process evaluation is a multiphase, multimethod study, it is important to provide clarity on which research questions are addressed in this technical report and which will be explored elsewhere in the evaluation.

The questions highlighted in **green** below have been directly addressed through key informant interviews (KIIs) conducted in the pre-tender phase and will continue to be explored through subsequent data analysis. Questions in **yellow** are areas that the research team has begun to probe through KIIs, but that require follow-on analysis as they are questions that address change over time, require triangulation with other data sources, or must be analyzed in view of the final PPP tenders issued. Themes related to both sets of questions have been incorporated into this report to varying degrees. Questions in **white** are not addressed within this report. Specifically:

- PT1 is being addressed through other methods (process mapping, document review) and will be linked to the implementation phase of the process evaluation.
- PT6 and elements of PT7 are questions that will be addressed as the PPPs move to tender.

Domain in TOC	Overarching Question	Detailed Related Questions
	pathways for laboratory diagnostic service financing and delivery, and how will the PPP change these pathways?	What are the respective roles of government public financing, health insurance payments, and out-of-pocket financing currently, and how will these funds flow to the PPP partner?
		What are the respective roles between central Ministry of Health (MOH), facility, other government actors (e.g., Treasury) with regard to diagnostic service financing and delivery and how will these change?
		What are current pathways for laboratory diagnostic system service delivery (e.g., who is responsible for ordering/transporting/testing/returning results, etc.) and how will these change under the PPP?
		What are the underlying barriers to effective laboratory performance (e.g., technical laboratory capacity, resources, data, bureaucratic processes, political will, etc.)? How do the feasibility studies diagnose the problem?
		How supportive is the existing policy, legal, and regulatory framework for PPPs, and are there any obvious gaps in this framework? (risk)
		How have public and private sectors related historically and how has that influenced the current PPP arrangements? How trusting and collaborative is the relationship?
		How do the health system governance arrangements (e.g., decentralization, devolution) affect the PPP?
		What has been the historic investment and interest from government in laboratory diagnostics? How does improvement in laboratory diagnostics align with government priorities for the health sector?
		What is the profile of the health workforce in the diagnostic sector, including their training, rank, and unionization?
	PT3. Who are the actors affected by the PPP, and how do their	Who are key stakeholders and why are they involved? (e.g., global, national, sub- national, facility, patients; private, public, TA, funders)

Domain in TOC	Overarching Question	Detailed Related Questions
	interests affect the viability of the	How do they perceive the advantages and disadvantages of the PPP?
	PPP?	What is the role and relative influence these actors have on each step of the PPP process (e.g., design, tender, procurement, implementation)?
		How threatening to the success of the PPP is the potential for turnover in key positions among national actors?
		Whose incentives are served or undermined by laboratory diagnostics happening in the public versus the private sector?
		What are their incentives to participate in the PPP?
		Who is potentially threatened by the PPP arrangement and why?
		How does the structure of AHDP at the global level affect dynamics at the country level?
		How have the roles of BMGF, CHAI, and EIB influenced country-level PPP dynamics?
		To what degree is there cross-country learning?
		What is the nature in changes over time in stakeholder involvement and incentives?
PPP Design PT4. What were the different options or factors that were		What options were considered when designing the model (e.g., different contracting options, regulatory considerations, geographic spread/focus, etc.)?
<u>TOC</u> : Effective PPP design developed and agreed	considered during the PPP design process? Why were certain choices made?	How were public facilities/sites for the PPP selected, and what role did geographical equity considerations play in this discussion?
		How did the availability of AHDP technical support and financing affect PPP design? (e.g., what is possible under AHDP that would not be possible otherwise)
		How does the PPP design accommodate the needs of certain populations such as poorest households, complicated patients (e.g., comorbidities, prone to loss to follow up)?

Domain in TOC	Overarching Question	Detailed Related Questions
		How appropriate is the design to the local context (e.g., political, socioeconomic, technological, legal, environmental, health system, diagnostics market)?
		How does the PPP design address the risks identified in the feasibility reports (e.g., ability to ring-fence funding for the PPP, political risk, payment delays)?
		How does the PPP design distribute risks between different actors in government and the private sector?
		How well does the PPP design address the project's identified goals (including availability, quality, efficiency, and affordability)?
		How disruptive is the PPP to the current system and how much change will it require?
		How does key PPP stakeholder capacity affect PPP design, tender/procurement, and implementation, including government capacity to manage the PPP lifecycle, and private partner capacity to deliver?
	PT5. How were the specifics of the PPP design negotiated?	Who was involved in the design of the PPP, and what were their respective roles during the negotiations?
		Who was ultimately responsible for approving the PPP design?
		What was the process of negotiation over PPP specifics (e.g., facilities, procurement model, PPP versus purchasing agreement, etc.)
		What were the sticking points around the PPP design, how were they resolved, and which were left unresolved?
PPP tender and procurement	PT6. How efficiently, effectively, and transparently is the PPP	Who is responsible for managing the tender process and ensuring timely progress?
	tender and procurement process managed?	How long did it take to move from agreement in the PPP design to approval and publication of the tender?
		Were there efforts to push ahead with the tender process despite objections?
		How did the tender process affect the procurement/awarding process?

Domain in TOC	Overarching Question	Detailed Related Questions
<u>TOC</u> : Transparent and successful tender		How did the tender and procurement process change the PPP design, if at all?
process	engage with the tender process?	How interested are private partners in participating in the PPP?
		Are the existing financial levers from AHDP sufficient to incentivize private sector engagement in the PPP? Do private partners take up the available financial instruments offered by the AHDP?
		How many private partners bid on the tender, and how many were eligible to do so? Which were the tender requirements that were difficult to meet?
Pathway to sustainability and	PT8. How does the PPP process, including design, tender,	How is the scale-up of the PPP being approached?
scale-up	procurement, and implementation, consider the scale-up of services	Has government increased financing availability for diagnostics during the PPP period (e.g., national health insurance)?
<u>TOC</u> : Sustainable financial plans developed for public sector diagnostics	sustainability?	Are there sustainable plans in place to support public sector financing of diagnostics in the future?

Methods

Data sources

Data to inform the full list of research questions above are being derived from a variety of active and passive data collection activities, including (1) KIIs, (2) document review, (3) meeting observations, (4) process mapping, and (5) stakeholder mapping. *The findings in this report are based primarily on KIIs conducted up to end of January 2022 in the pre-tender phase*, supplemented by document review completed as part of the evaluation team's foundational and contextual work. Accordingly, KII data collection and analysis activities are described more fully below, but it is worth briefly addressing the other data sources here.

First, meeting observations have been difficult to carry out given disruptions to in-person gatherings related to the COVID-19 pandemic, as well as political sensitivities while the PPP negotiations have been ongoing. We hope to leverage this method more fully in subsequent phases of the evaluation as the PPP tenders are approved, implemented, and monitored.

Second, draft process maps describing the current pathways for financing and delivery of laboratory diagnostics have been developed in all four countries. These will be revisited as part of the implementation phase of the process evaluation to assess how the PPPs (once finalized) are *intended to* change existing pathways, and following implementation, the *actual* changes to these pathways observed.

Lastly, stakeholder mapping will be conducted as part of the formal KII analysis. Our goal is to connect the stakeholder mapping to stakeholder workshops that have been on hold due to local COVID-19 restrictions on in-person gatherings.

Key Informant Interviews

Data collection

National KIIs were conducted by research partner co-investigators experienced in qualitative data methods, familiar with local norms, and local ethical research conduct. Global interviews, including CHAI country representatives, were conducted by the JHU team. Table 2000 Using a purposive sampling approach, we focused on stakeholders directly involved with AHDP, with PPPs in-country, whose institutional role links them to laboratory services in-country, Country-Specific *Findings* below, but respondents included senior officials within the ministries of health and finance, other governmental health agencies, health facility and laboratory personnel, and professional associations, as well as representatives from BMGF, EIB, and CHAI.

A total of 63 KIIs were conducted between November 2021 and end of January 2022, with another 24 pending interviews expected in February to March 2022 (see Table 2 below). Country-level interviews were conducted online via Zoom or in-person, recorded, and transcribed. Interviews in Ghana and Kenya were conducted in English, and interviews in Ethiopia and Rwanda were also conducted in Amharic and Kinyarwanda, respectively. All interviews were transcribed and translated, where needed. Global interviews were conducted over Zoom in English. Informed consent was obtained orally or in written form from each key informant prior to the recording of the interview. These consent forms are kept in a secured place with each interview team. For interviews that were conducted online, a consent form was sent and signed by the interviewee and sent back to the research team conducting the interview.

	Completed Interviews	Pending Interviews	Total Interviews	Gender of Completed interviews
Global*	12	2	14	66.6% female
Ethiopia	15	7	22	40.0% female
Ghana	10	9	19	40.0% female
Kenya**	10	2	12	30.0% female
Rwanda	16	4	20	37.5% female
Total	63	24	87	
Total	00	21	01	

*Interviews conducted by the JHU team with CHAI country office leads are included in country-level interview counts.

**Kenya has conducted national-level interviews at this stage and will proceed with county-level interviews as needed as AHDP rolls out in county settings.

Data analysis

Consistent with qualitative research, we have taken an iterative approach to data collection and analysis. Country-level research teams developed a running memo, updated regularly as new interviews were conducted, to capture emerging themes including facilitators, barriers, and unresolved issues related to PPP negotiations, as well as to identify areas for follow-up in subsequent interviews. Memos were reviewed by the JHU team and key findings discussed as part of regular coordination calls among the consortium. At the global level, memos were developed following each interview, discussed internally at regular debriefing sessions, and reviewed in full by the technical lead.

A preliminary cross-country synthesis was developed, validated, and refined as part of a consortium-wide workshop to review findings and generate lessons learned. These processes have provided insights into emerging themes from the pre-tender phase across countries, but more systematic qualitative data analysis is required. Findings in this report should therefore be viewed as **preliminary only**, subject to further analysis and validation.

Findings

Findings are presented thematically first, focusing on cross-country results. This is followed by country-specific sections that detail local conditions and process.

What is the experience with PPPs in AHDP countries?

The evaluation explored each country's experiences and history with PPPs or similar arrangements, regulatory frameworks, or other policy guidance for establishing PPPs, and how these have influenced the negotiation for AHDP. All four evaluation countries have PPP policies and regulations in place that dictate the legal process that needs to be followed. Despite experiences with private-public arrangements within the health sector (and PPPs in other sectors), none of the countries has had a formal PPP for health of this kind in the laboratory environment before. This has meant that CHAI and country actors are "learning by doing" in terms of designing and negotiating AHDP arrangements.

However, all countries have had earlier experiences with contracting and outsourcing within the health sector, such as a laboratory placement framework agreement in Ethiopia and a health sector agreement for pharmacy services in Ghana. Early experiences have left mistrust between the public and private sectors, which CHAI has worked to overcome; these experiences also present opportunities for AHDP to take lessons that can be applied to current efforts.

There appears to be clear government interest in improving laboratory diagnostic systems with various motivations including meeting existing health or laboratory policy goals, increasing access to and quality of services, reducing overall out-of-pocket (OOP) expenses for patients, and improving the revenue stream for public hospitals. COVID-19 has also drawn attention among country officials to the critical role that laboratory services play in the health system, and how underdeveloped and under-supported they are. Governments see the potential of private partner involvement in improving quality and management of laboratory services, but they remain concerned about sustainability, the ability to build sufficient public laboratory capacity during the contract period, and public perceptions on heavily involving the private sector. It is unclear at this time whether AHDP was the right offer at the right time, if countries are interested in laboratory improvements but are unsure PPPs are the right approach, or if AHDP is actually driving government interest in laboratory improvements.

Private partners have concerns including on-time payments, poor understanding of demand before entering contracts leading to unrealistic contracts, or getting blamed for problems. In addition to these concerns is a skepticism that the PPP will come to fruition at all given earlier failures at arrangements between private and public sector. Still, private partners remain interested in getting public sector contracts and appear to feel that the potential benefits of contracts outweigh the risks at this time, so they remain open to participating.

How was the AHDP planned and negotiated?

Here, we cover the process of development and negotiation of AHDP to-date, including the internal process within AHDP and its global partners, country negotiations, and AHDP's role in those negotiations.

How was the AHDP designed by global partners?

AHDP as a program was initially driven by interest from the BMGF and EIB, along with support from the European Commission, to use PPPs as mechanism for solving weaknesses in the laboratory system in SSA. BMGF viewed PPPs as the solution to improving quality laboratory diagnostics and EIB was interested in expanding PPPs for the health sector, so together they set their focus on "de-risking" PPPs. McKinsey and other consultants conducted initial assessments of the laboratory market, previous PPP failures, and barriers to entry especially for private partners. They also conducted early feasibility studies to identify potential intervention countries.

The plans and design for the program unfortunately progressed substantially based on flawed assumptions and business models, such as how long it would take to implement a formal PPP as well as how feasible it would be to reduce public sector staffing to improve efficiency. Global respondents made it clear that there was no engagement with individuals in-country and limited engagement with individuals within BMGF who were familiar with health systems or service delivery in the SSA region or with the specific countries under consideration. This meant that important considerations about the local political economy, policy environment, and health system structure played less of a role than they should have. CHAI had independently been considering the potential of PPPs to improve laboratory systems and were responsive when approached by AHDP. CHAI was brought into the program once the model of pursuing a formal PPP was, at least partially, developed, and was left to seek country buy-in for the idea.

In terms of specific AHDP features, the initial goal of BMGF and EIB had been to focus on lowincome populations including rural populations, but CHAI analyses indicated this would unlikely be feasible. Instead, CHAI took the strategic decision to ensure that PPPs did not impose new fees or increase existing fees where patients were already entitled to services. It was felt that reducing fees, expanding the package of services, or expanding populations covered through entitlements would require substantial policy change beyond the scope of AHDP. Separately, BMGF and EIB misjudged government interest in financial instruments versus technical assistance. To-date, governments have had mixed preferences regarding taking on more debt, so it is unclear at this time how financial guarantees would work under the models currently under discussion.

There is a recognition among global partners that there are major risks associated with suddenly shifting all diagnostic services over to the private sector; hence it makes sense for countries to proceed in stages. Nevertheless, some actors—especially some at BMGF—have been surprised by how time-consuming the negotiation process has been, which has led to significant pressure on CHAI to speed up the process and deliver (see more details below).

How were PPPs negotiated in-country?

CHAI respondents felt like their involvement in AHDP at country level did not reflect their typical approach. Usually, CHAI attempts to understand government priorities before pursuing potential programs or interventions. Thus, once CHAI came on board to AHDP, their initial efforts were spent in assessing government interest in improving laboratory diagnostic services and their openness to PPPs as the mechanism for achieving this.

These factors coupled with local policies and regulations for PPPs and service contracts have meant that in-country negotiations have been very time-consuming because of the different

levels of buy-in and stakeholder engagement that are needed. Depending on the country and type of agreement being pursued, the approval process can be very highly structured and quite bureaucratic (e.g., PPPs in Ghana and Ethiopia), which adds to the timeline. While early work by McKinsey anticipated a timeline of 12-18 months to "close deals" this does not appear to incorporate any time to manage necessary government approval process. The need to pursue a county-by-county approach in Kenya has meant that negotiations are occurring iteratively across many jurisdictions which is also resource intensive and time consuming. Delays were exacerbated by the COVID-19 pandemic, but the timelines also reflect the nature of policy negotiations necessary for contracts of this nature particularly given the novelty of PPPs for health service delivery.

Early analyses from McKinsey suggested that changes to staffing would be a significant contributor to improved efficiency in laboratories. For example, in Ghana McKinsey suggested that there could be US\$10 million savings in staff costs nationwide by "closing redundant labs" in district hospitals as a result of a PPP. However, in all countries, governments were very sensitive to the idea of handing over control of laboratory staff to private partners, which became a sticking point in negotiations. Governments had significant concerns about laying off health workers (or giving private partners general control over hiring and firing), about implications for salaries and pensions of staff as civil servants, and about reactions from unions and professional associations. Current PPP plans have consistently kept laboratory staff under public sector control, except in Ethiopia.

Finally, limited process documentation impacts the potential for AHDP partners and country counterparts to learn between phases of the program, including to address or protect from premature policy reversals.

What was AHDP's role in country negotiations?

Technical assistance from CHAI has contributed to collating and analyzing available laboratory data, feasibility studies that identify key areas for intervention, navigating the regulatory landscape, convening and engaging with multitudes of actors, etc. Given the lack of precedent with PPPs of this nature, respondents have noted CHAI's support in helping country counterparts navigate and interpret contracting regulations in Ghana, Ethiopia, and Kenya.

Whether these activities have been led by CHAI or supported in partnership with others, such as government agencies, has varied by country. However, CHAI's technical assistance has filled some critical bandwidth and capacity gaps within MOHs where the experience with PPPs is only emergent (e.g., secondment of CHAI personnel at PPP unit at Ethiopia MOH). Some respondents noted that involvement in AHDP has meant that governments now have more and better data about their laboratory systems than ever before, which is a success in and of itself.

However, perceptions of CHAI's involvement are mixed. Some respondents felt that their technical assistance was critical for progress, and in some cases, CHAI was seen as the "objective" third party because there was seen to be no financial gain for them out of the PPPs—in contrast to earlier experiences when private partners approach governments directly to make a deal. Other respondents felt that CHAI was "too involved." Notably, as the main country-facing partner, CHAI has been caught in the awkward position of trying to ensure that laboratory investments are a government priority while simultaneously pushing BMGF and EIB's interests in using PPPs for laboratory improvements.

The interest in and reaction to the AHDP financial instruments on the part of government have been mixed, and vary significantly by each country's regulatory context, financial need, and willingness to incur debt. COVID-19 has contrasting effects depending on the context. While the pandemic raised the profile of laboratory services and highlighted the existing system's weaknesses, it also changed the economic landscape. For example, in Rwanda financial instruments were not explained enough in detail to potential in-country stakeholders, but there were also perceived risks to taking on more sovereign debt given the existing COVID-related challenges. To-date, country negotiations have focused on the design of the PPP so far rather than on financing; government and private sector interest in financial instruments will likely evolve as PPP designs are finalized.

On the part of private partners, interest in financial instruments will depend on the nature of the PPP, how much upfront investment (capital or otherwise) is needed, and the nature of the private partners actually bidding since smaller, local firms are more likely to require financing than larger, multinational ones. In terms of guarantees, it is unclear whether private partners would prefer volume or payment guarantees or both, but there is interest in limiting the risk to the private partner if the government defaults on payments. It was noted that for local private partners, the terms of EIB's financial instruments will need to be competitive with local lending opportunities in order for private partners to partake.

How were actors engaged and managed during AHDP negotiations?

CHAI's role conducting actor coordination, engagement, and management has been critical, but the approach has varied. In Ghana and Rwanda, CHAI convened or used existing coordinating mechanisms (e.g., technical working group) that involved all key stakeholders to oversee discussions about analyses and design, and negotiate and put forward potential plans. In Ethiopia, there has been no coordinating mechanism but rather iterative negotiations one-on-one with structures in place in the Ministry of Finance (MOF) and MOH. In Kenya, all coordination is focused on the county level, including county executives, health management teams, and procurement officers with minimal engagement of national bodies relevant to PPPs.

CHAI pursued high-level engagement with MOHs—reaching on occasion up to ministerial level—to get commitment for AHDP, but engagement with technical teams varied, and it was recognized that this was a trade-off worth reconsidering in future AHDP countries. An effort has been made to intentionally involve MOFs early on, given their critical role in the financial aspects of the plan as well as their regulatory role in approving PPP agreements, where applicable. The engagement and timing with MOF have varied:

- Ghana: The MOH and MOF are seen as equal decision makers.
- Ethiopia: The MOF directs PPPs, and the PPP Board makes major decisions.
- Rwanda: The MOF was made aware early on but would only get seriously involved once the MOH approved the plan.

Substantial effort has been spent on getting MOHs and MOFs to understand each other's priorities and constraints. It is recognized that MOH staff have a steep learning curve when it comes to PPPs, while MOF staff have a learning curve around the health sector and the role of laboratory services, specifically. Notably, both ministries are concerned about the role of laboratory staff in a PPP given they are public sector employees.

CHAI made a substantial effort to seek out input, and buy-in where possible, from health worker unions and professional associations, private laboratory firms, and health facilities to be included in AHDP and their staff. However, limited or no efforts have been made to-date to engage beneficiary communities or representatives from consumer groups.

Some respondents criticized CHAI's approach to engagement, especially around the MOF and when they were brought on board. The evaluation team would note that how to sequence actor engagement is complicated and context-specific, and there are usually no clear timelines for whom to involve when for maximum effect.

Country-Specific Findings

In this section, we highlight country-specific findings about the current status of the PPPs, the negotiation process and actors involved, and lessons learned and recommendations.

Ethiopia

The evaluation in Ethiopia is being led by the IIPHC. To-date, 16 out of 23 interviews have been completed.

	Completed	Pending	Total
Total number of interviews	15	7	23
Affiliation			
Government, health sector	1		
Government, other	2		
Government, subnational	1		
Health facilities	4		
Implementing partners	1*		
Private partners	3		
Professional associations	2		
Development partners	0		
Other	1		
Gender			
Female	6		
Male	9		
*Includes one respondent who was interviewed through global interviews			

Table 3. AHDP Key Informant	Interviews in Ethionia	(Completed and Pending)
Table 5. And Rey monutant	пистистиз пі спіоріа	(Completed and Fending)

Current PPP plans

Current plans for PPP	Formal PPP via a centralized diagnostic center co-located at an existing Addis Ababa hospital, connected to other health facilities through a referral network. Leveraging an existing facility, the public sector will provide infrastructure and the private sector will operate and manage the services. Services will ultimately be transferred back to government. The PPP proposal has been agreed upon for review and approval by the PPP Board. The goal is to present the proposal to the PPP Board in Q1 2022.	
Geographic scope	Addis Ababa for now (all 12 large public hospitals, plus sample network for health centers); eventually all large public hospitals nationwide.	
Sequencing or	Addis Ababa seen as pilot; phased implementation seen as	
phases	beneficial given this will be the first PPP agreement of its kind.	
Actor with main/final		
authority over PPP	MOF, and PPP unit at MOH.	
Government motivations	Primary: access and quality; also, timeliness and cost.	

	Reduction in turnaround time on laboratory tests would support clinical use of diagnostics, and PPP may address wastage by implementing quality control mechanisms; current estimates indicate laboratory facilities are functioning at just 30% capacity. Government recognizes it may be difficult to carry out large-scale projects to improve diagnostic services without outside support.
Length of agreements	10 years+ (up to 30 years permitted).
Agreements of this nature from which they could learn	No PPPs in health. Ethiopia has experience with other agreements in the health sector (e.g., a 3-year public-private framework agreement on laboratory placement; outsourcing catering, etc.), and some existing partnerships with local and international private agencies to expand laboratory capacity.
	PPP Board now has 29 projects in the pipeline, 23 of which are in the energy sector. Indication there are international examples that Ethiopia could learn from, but it appears that cross-learning has been limited to-date.

The current plan in Ethiopia is to pursue a formal PPP whereby a centralized diagnostic center, co-located at an existing public sector hospital in Addis Ababa, is equipped, staffed, operated, and managed by a private partner. The public sector's contributions will be around the infrastructure, utilities, and ancillary services (e.g., waste management) for the center. At the MOH's request, the diagnostic center will include laboratory, pathology, and imaging services. The PPP would also include a referral network for sample transfer, and ambulance services for imaging services. The length of the agreement is still under discussion, but will be 10 years minimum, and the goal is to ensure that the PPP builds laboratory capacity and management of the center is transferred to government at the end of the agreement.

PPP negotiation process

In Ethiopia, moving through the formal processes to get a PPP off the ground has been a protracted and iterative process, requiring MOF approval at each gate (i.e., between pre-feasibility and feasibility study, feasibility study and proposal), and reflecting a need to ensure buy-in among stakeholders for a novel partnership agreement. Respondents emphasized that PPPs are a relatively new mechanism in Ethiopia—the PPP legal framework (Proclamation No. 1076/2018) was only established in 2018—and a PPP for health service delivery is less familiar to stakeholders than PPPs for infrastructure, for example.

This has required significant engagement with the MOF to (1) underscore the rationale for a PPP for diagnostics, and (2) understand the fiscal commitment of a service delivery PPP. Still, an informant at the MOH indicated that despite the long timeline the ministry is "moving faster than ever before," and there appears to be positive consensus around the PPP for diagnostics. Despite a history of mistrust of the private sector as profit-seeking in Ethiopia, there is a growing recognition within the public sector that the private sector has a role to play in filling key health system gaps (recent private sector partnerships have improved access to family planning and vaccination and engagement in laboratory testing for COVID-19) and optimism about private

sector interest given the potential for a high-volume business. The MOF has also developed sector-specific guidelines to support PPPs.

By its own admission, CHAI has played a significant role in facilitating the design of the PPP at various stages in the process. Baseline data generated through the feasibility study have helped the government to get a handle on the situation on the ground—what tests are being ordered most often and at what volume, and overall system performance—which has helped to make clear the gaps in laboratory and diagnostic systems and has enabled government stakeholders to examine various scenarios for the PPP design, such as the implications for shifting geographic scope or including additional services. CHAI has spent significant time helping the government to think through these scenarios and has provided direct support by seconding two personnel to support the PPP unit within the MOH.

Respondents from CHAI emphasized the importance of not rushing the process and allowing the government to follow its own due diligence, and an MOH official suggested that moving through Ethiopia's existing governance structures has helped to ensure government ownership. Nonetheless, the multiyear gap between early discussions on the PPP, completion of the feasibility study, and adoption of the PPP design has brought some fatigue and reluctance from laboratory and facility representatives. Notably, unlike other settings, Ethiopia has not had a dedicated steering committee for designing the PPP. Rather, negotiations have been sequential and iterative. Key partners in Ethiopia include stakeholders from the MOH, the MOH technical working groups on health financing and PPPs, the MOF, the Ethiopian Public Health Institute, health professionals at large hospitals, suppliers (PFSA), private laboratories/diagnostic centers, and others.

Sticking points during PPP negotiations

Significant negotiations occurred to determine the overall structure, scope, and legal framework of the PPP. Regarding structure, respondents preferred a centralized model, noting it would be infeasible, and likely inefficient, to scale up laboratory systems in each facility. As a result, strengthening the referral network to Addis Ababa's facilities is seen by both facility and ministry-based respondents as critical for ensuring access to diagnostic services. Other key leverage points were around addressing inconsistent supply of commodities and reagents, and inefficient use of/nonfunctional laboratory equipment. It is unclear, however, whether the government will allow government-owned equipment to be maintained and used by the private sector.

In addition, several key sticking points emerged as significant over the course of negotiations. These included how to define the included test menu, staff management, and issues related to PPP financing and reimbursement.

Defining the test menu – Debates have centered on whether to expand access to basic tests or bring new tests online within the public sector. This reflects different stakeholder incentives, with the private sector favoring more basic tests to appeal to a wider service base, and the government seeking to expand capacity for more advanced tests. The private sector is also interested in acquiring advanced technologies in diagnostics and is vested in improving national capacity.

Staffing - The government did not want civil servants to be managed by the private partner, and it was felt that bringing private staff into existing laboratories may cause sensitivities among public staff (i.e., concerns about job security), as well as result in variability in salaries between private and public staff working in the same facility. The decision was ultimately taken for the private partner to hire and manage their own private staff working within the PPP's diagnostic center. It was also noted there is a need to build the capacity of laboratory personnel more broadly.

PPP financing – There was widespread agreement on the need for multiple revenue sources to support the diagnostic center's operations, such as OOPs from walk-ins, and other financing from community-based health insurance (CBHI). However, how CBHI would be linked to the diagnostic center remains unclear, and past instances in which the public sector failed to cover laboratory or imaging services under CBHI have raised questions about what limits, if any, may be placed on the types of services covered for insurance holders. There was also widespread commitment to regulating costs and maintaining free services for low-income households and exempted services (e.g., tuberculosis, family planning), although facilities reported this would affect a minority (10–15%) of the patient population. Separately, there is concern from the MOF about taking on sovereign debt. Part of the PPP review and approval process entails financial analyses to this end conducted by Treasury after the overall structure is approved by the PPP Board.

Finally, respondents noted the importance of establishing regulatory and control mechanisms for the PPP to guard against corruption, service monopoly, and overdependence on new systems (i.e., ensuring transfer back to the government), and to enable monitoring of expected outcomes for service delivery, quality, and cost. Additional work is required to put these guardrails in place without allowing the regulations themselves to become obstacles to efficiency.

Lessons learned and recommendations

Lessons learned from AHDP negotiations thus far in Ethiopia include:

- Based on review of external examples of PPPs, Ethiopia elected to make PPP procurement centralized with the MOF to avoid corruption and protect the public and enable a cross-cutting view of financial implications.
- A comprehensive feasibility study and evidence generation allowed flexibility to examine various PPP design scenarios without requiring multiple rounds of data collection.
- Moving through existing governance structures and processes helped to ensure government ownership and buy-in and may impact sustainability of the PPP positively.
- Development of sector-specific guidelines to support translation of the PPP proclamation into practice, including assigning experts to help coordination at the MOF and the MOH, has been helpful.
- The private sector has some experience in supporting a networked system, including sample collection and transportation from peripheral facilities, running tests at a well-equipped laboratory center, and returning results.

In addition, despite limited experience with PPPs for health, existing, small-scale, and somewhat fragmented partnerships with the private sector offer an opportunity for learning:

- International Clinical Laboratories is networking with primary hospitals in remote areas where health workers are trained in sample collection for histopathology. They send specimens and then get the results within a short period of time. Previously, this process was taking 4 to 5 months, and now patients can get results in a couple of days. This was also supported by the head of the department of pathology of a public hospital, which has formed a similar network. Furthermore, the public hospitals have learned from their experience in outsourcing non-service delivery activities to the private sector such as laundry, food, and security services.
- One private firm (Pioneer Diagnostic Center) is expanding its imaging services to five government hospitals in Addis Ababa and to a private hospital by installing machines such as MRI and CT scans, and the demand for these services is increasing. Soon their collaboration will extend to regions outside of Addis Ababa. Government hospitals find it difficult to maintain machines and equipment, and this affects clients, adding travel costs, delays, and inconvenience. However, this collaboration is self-initiated at the facility level and lacks approval from the MOH.
- The private sector is clear on the potential benefits of the PPP both for itself and for clients, providers, and government hospitals, and are pushing for PPPs to happen as soon as possible. This is expected to have a facilitating role because the demand for PPPs from the regions outside Addis Ababa is increasing.

Recommendations as AHDP goes forward include the following:

- Learning from other sectors' PPP projects will allow some flexibility to support this PPP.
- Addressing the legal framework for PPPs within the agreement alone will not lead to success; advocating and creating awareness among stakeholders including the community will help change mindsets and facilitate implementation.
- There are a number of open questions that need to be addressed to facilitate the longterm success of the PPP, including capacity transfer for government laboratory staff where necessary, linking of CBHI to diagnostic services within the AHDP, developing effective monitoring systems, and ensuring regulatory mechanisms are implemented appropriately

Ghana

The evaluation in Ghana is being led by the University of Ghana. To-date, 10 out of 19 planned interviews have been completed.

	Completed	Pending	Total
Total number of interviews	10	9	19
Affiliation			
Government, health sector	1	4	5
Government, other	2*	1	3
Government, subnational	3	0	3
Health facilities	0	1	1
Implementing partners	2 [±]	0	2
Private partners	1	2	3
Professional associations	1	0	1
Development partners	0	0	0
Other	0	1	1
Gender			
Female	4	2	6
Male	6	7	13
* Two respondents in one intervie			

Table 4. AHDP Key Informant Interviews in Ghana (Completed and Pending)

[±] Includes two respondents who were interviewed through global interviews

Current PPP plans

Current plans for PPP	PPP will be moving ahead in 2022. Focus will be on regional hospitals and will include a laboratory referral network.
Geographic scope	The regional hospital in all regions. For newly formed regions, plan to identify district hospital to serve as intervention site.
Sequencing or phases	Pursuing phased approach with some regions implementing the PPP first, then using the lessons learned to inform the expansion to the rest of the country. The number and selection of regions for the first phase will depend on availability of financing.
Actor with main/final authority over PPP	Parliament is final approving authority for PPPs—they act on recommendation of the PPP Committee.
Government motivations	Efficiency and availability of laboratory services within the public sector.
Length of agreements	To be determined.
Agreements of this nature from which they could learn	Earlier PPPs in pharmacy and radiology.

The Government of Ghana (GOG) is interested in pursuing a PPP for diagnostics with the aims of (1) improving and upgrading laboratory infrastructure and equipment, (2) expanding the diagnostic services on offer, and (3) taking advantage of comparatively greater efficiency in the

private sector, for example related to greater labor productivity. Accordingly, the GOG appears to be proceeding with a PPP that will contract private firms to equip and operate the laboratories at regional government hospitals. Staffing will stay with the public sector, while private partners are responsible for equipment, supplies, and transport and referral network. Discussions about how to manage profit sharing are ongoing.

There are 10 established regional hospitals and six nascent ones, in newly established regions. It seems possible/likely that the PPP will be scaled up gradually across the regions depending on the amount of financing available, for example starting with an initial six regions, over a period of two years, and then if this works well, scaling up beyond this. It is anticipated that the PPP will also provide services to lower-level facilities via a transport network that will send samples up to the regional hospitals for processing. Geographic equity has been an important part of the discussion with clear efforts made to ensure that the proposed PPP includes more remote areas, and that similar standards of quality and service are assured across the network.

The MOH has submitted its proposal for the PPP to the MOF for consideration, however respondents noted that while the outline of the PPP is clear, there are a number of details, particularly about financing arrangements, which are not yet agreed. In particular, it is unclear as to whether the government will take on debt to finance the arrangement, although it appears likely that private sector companies will take on debt in order to renovate laboratory facilities. One respondent indicated that multiple different options for financing are built into the financial model submitted to the PPP office of the MOF.

Context

Across respondents, both those closely connected with AHDP and those who had not heard of it, there was strong support for PPPs for diagnostics to address the poor state of public sector laboratories in Ghana. Respondents also unanimously perceived the government to be open to and interested in engaging in PPPs.

Several respondents discussed the impact of COVID-19. While there was consensus that the pandemic slowed down the pace of meetings and overall progress on the PPP, several respondents pointed to positive effects. For example, the pandemic had forced greater partnership with the private sector (about 40% of the established COVID-19 centers are run by private providers, and government also collaborated with hotels to provide quarantine facilities) and thus perhaps made both sides more open to such collaboration.

PPP negotiation process

All respondents who were well-informed about AHDP agreed that there had been extensive stakeholder consultations and negotiations, which had involved a broad array of stakeholders including the MOH and MOF, health service managers and health care providers at multiple levels of the system especially the regional level, the Church Health Association of Ghana, private sector providers, professional bodies, and the National Health Insurance (NHI) Agency. Respondents described a protracted and complex process (see Table 5)

Table 5. Timeline of PPP Negotiations in Ghana

Approximate Date	Activity
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2019	Establishment of a Ministerial Working Group or Technical Working Group (TWG) by the MOH to advise the minister on the AHDP and whether or not a PPP made sense.
2020	Collection of initial baseline data from 96 medical laboratories across the country.
2020	Discussion of findings with the MOH and the TWG that led to a request for further data collection and analysis.
December 2020	Passage of new Public Private Partnerships Act, which led to the need for revisions to feasibility study and proposals.
2021	Revision of the feasibility study and development of proposal of three different potential PPP models.
2021	Discussion of the models with a preference for the "middle" one combining both public and private sector assets.
2021	MOH, with CHAI support, prepares report with full feasibility study, financial model, and PPP design, and submits to the PPP office of the MOF.
2021	PPP office of the MOF reviews proposal and provides comments.
End 2021	MOH revises documents and resubmits to the PPP office.
January 2022	Once the proposal meets the needs of the PPP office, the report is submitted to the Fiscal Commitment Technical Committee (a subcommittee of the PPP Committee) that examines government's financial commitments and their feasibility.
Planned for	Once approved by the Fiscal Commitment Technical Committee, the proposal moves to the full PPP Committee for consideration. The PPP Committee then approves (or not) the proposal. The PPP Committee of the MOF is the final decision maker.
2022	Once the PPP Committee has approved the proposal, it can then move to the procurement stage. The PPP will be pursued as an open RFP. Under the new PPP Act, as part of the procurement stage, the government is required to undertake a "market sounding event" and also engage all relevant stakeholders as a means of building support.

CHAI was clearly viewed by respondents as the main supporting entity in terms of actor engagement, meeting coordination, space, and funding; at the same time, there is strong local ownership of the process, with CHAI representing AHDP donors but not part of decision making. Further, in describing the role that CHAI had played in supporting both the MOH and the MOF, one government respondent described their role as "seamless and effective."

By its own account, CHAI provided substantial technical assistance to support government agencies in adapting to new PPP rules. For example, the MOH and MOF had to establish a PPP office so CHAI provided technical assistance to support this. They also helped MOH and MOF establish governance for the project, including identifying an independent auditor, developing a monitoring and evaluation plan, etc. The recency of the PPP Act meant that government officials were frequently trying to understand and interpret the Act themselves for the first time. Further, there were limited readily available data on laboratory services, so the feasibility study had to collect such data from scratch.

Respondents frequently referred to distrust between the two sectors based upon the experience of previous PPPs that were not perceived to be successful. While distrust runs in both

directions, the private sector is particularly concerned about late payment. Some respondents viewed the 2020 Public Private Partnership Act (PPP Act) as helping to reset public/private relationships. First, the Act makes it very clear that Ghana is interested in pursuing public/private partnerships; second, the Act provides greater security to private firms participating in PPPs as there is now a formal complaints mechanism whereby complaints brought by private firms are heard by an independent panel of judges. The Act also makes it harder for PPP arrangements to be reversed when there is a change in government. Despite these positive aspects of the Act, its passage at a time when the AHDP was in process caused some confusion and made it necessary to revisit aspects of the process.

Sticking points during PPP negotiations

Respondents were in agreement that the primary sticking points thus far in the process were **financial** ones. On the one hand, the growing government debt crisis¹ has forced recognition that the government is unable to pay for laboratory renovation and new equipment itself, but ensuring that any additional debt incurred can be paid back and is received on favorable terms have been major points of discussion. Some respondents described negotiations around the interest rate for the sovereign loan to support the PPP. There have also been protracted discussions about how best to generate revenue streams to help pay back the loan and remunerate private sector service providers, while also ensuring that government laboratories do not become unaffordable. Laboratory services also constitute an important source of revenue for government hospitals, so agreements about profit sharing are also a sticking point.

Respondents referred to prior PPP-type arrangement with a laboratory equipment and logistics firm, Taylor and Taylor, which while initially promising, ultimately failed as government was not able to pay the company to continue maintaining laboratory equipment. Currently, all revenues from laboratories go to the general hospital account, and it appears challenging to ring fence revenues from laboratories to be reinvested in diagnostics; ensuring that in the future such revenues can be ring-fenced was perceived as critical. Analyses had also assessed the extent to which NHI tariffs for medical diagnostic services are sufficient and had noted that these rates likely need to be revised, particularly for low-income populations who could not afford copayments. There is also discussion about the NHI having separate contracts with the private sector laboratory firm, so that they might pay them directly for services provided to insured persons rather than payments being made to the hospital.

In terms of **health workforce**, some respondents noted likely resistance from employees currently working in laboratories but did not appear to think this would be insurmountable, especially if the PPP was able to improve workers' terms of service. Apparently, there is precedent for this: A current PPP at Korle Bu Accident and Emergency whereby laboratory staff work "harder and longer" but are paid an honorarium on top of their government salary.

A number of respondents also described likely opposition to the PPP from **small-scale laboratories** who would lose business as a consequence of the PPP. However, the same respondents often voiced concern about the quality of small private diagnostic services and the lack of regulation or quality assurance of these businesses, suggesting that it would be no bad thing if they were to go out of business. One well-informed respondent described the conflicts of

¹ <u>https://www.bloomberg.com/news/articles/2022-01-13/ghana-debt-moves-deeper-into-distress-as-investors-lose-patience</u>

interest that occur with many clinicians who work in public facilities also owning private sector health care businesses and reflected on how this might adversely affect the PPP.

Lessons learned and recommendations

Lessons learned from AHDP negotiations thus far in Ghana include:

- The 2020 passage of the PPP Act clearly delayed progress on negotiations; however, there are aspects of the Act that appear to provide stronger support to PPP processes in the future, and that may incentivize private sector participation, underscoring the importance of a strong regulatory environment.
- Financial considerations are front and center in the deliberations, and financial considerations appear to be one of the main factors shaping some of the technical aspects of the PPP design.

Recommendations as AHDP goes forward:

- While a phased approach is planned, the details of this are unclear, and in particular the criteria that would drive a go/no-go decision at the end of the first phase need to be established.
- Concerns about the quality of laboratory staff need to be addressed, in particular the
 perceived heavy reliance in government laboratories on poorly trained laboratory
 technicians, with inadequate oversight from pathologists or other better trained
 personnel. Many laboratory technicians have barely a few months' training and have not
 received continuing professional development. If private sector firms are expected to
 adopt the workforce already in place, it is not clear how this problem will be addressed.
- Only one respondent spoke directly about the widespread practice of public sector employees also owning private facilities, and this conflict of interest was not cited by others or was not seen to be a problem. However, the respondent who raised this point was well-positioned to talk about it, and implied that the conflict could create problems for the PPP moving forward.

Kenya

The evaluation in Kenya is being led by Strathmore University. Up until recently, the focus of data collection was at the national level as there were no counties sufficiently advanced on the contracting process to warrant data collection. In addition, CHAI advised the evaluation team not to contact county officials until proposals were more advanced for fear of jeopardizing progress. Thus, the findings presented below represent only national-level perspectives thus far.

With the recent request for proposals in Tharaka Nithi—and other counties potentially to follow—the country team will begin county-level KIIs. In addition to the pending national-level interviews noted in Table 6, we anticipate 25 additional county-level interviews to be conducted per county that is included in the evaluation.

	Completed	Pending	Total
Total number of interviews	10	2	12
Affiliation			
Government, health sector	4	0	4
Government, other	5	1	6
Government, subnational	0	0	0
Health facilities	0	0	0
Implementing partners	1*	0	1
Private partners	0	1	1
Professional associations	0	0	0
Development partners	0	0	0
Other	0	0	0
Gender			
Female	3	0	3
Male	7	2	9
*Includes two respondents who w	vere interviewed th	rough global ir	nterviews

Table 6. AHDP Key Informant Interviews in Kenya (Completed and Pending)

Current PPP² plans

Current plans for PPP	Counties will pursue service procurement contracts rather than PPPs. Each county to define its package of services from the private partner. Referral network is an important component. Goal is to not require capital investment from counties.	
Geographic scope	County-specific. Two to three counties advancing quickly, others expected to follow as initial county experiences are known.	
Sequencing or phases?	No, other than county-by-county uptake.	
Actor with main/final authority over PPP	County executives, MOH, MOF.	
Government	Efficiency (which increases surplus), affordability for patients	
motivations	through improved access to services.	
Length of agreements	5 years, renewable.	

² In Kenya, counties will not be pursuing formal PPPs but rather service agreements and other contracting arrangements. We use PPP throughout this section for succinctness.

Agreements of this	Counties partnering with private hospitals for equipment placement;
nature from which	earlier PPP with Lancet for laboratory services in Taita Taveta
they could learn	county.

At this time, two counties are currently moving ahead with contracts, one faster than the other. Tharaka Nithi county already issued a request for expressions of interest (EOI) in September 2021, and request for proposals (RFPs) from private partners in December 2021. Their intention is to move ahead with contracting ahead of national elections in August 2022. The EOI was open to the public, and responses were used to narrow down to a short list of bidders that received the RFP. Although the RFP was closed, it appears from the EOI that the county is interested in pursuing an arrangement referred to as the Clinical Laboratory Improvement Project whereby a private laboratory and diagnostics company will partner with county government to "guarantee effective and efficient laboratory service delivery."³ The second county moving ahead is Siaya, which is advancing but on a slower trajectory, and no specific details are available at this time.

PPP negotiation process

CHAI had initial engagement with PPP entities (e.g., PPP unit at Treasury) then moved on to county-level discussions, but there was hesitation to move forward with a formal PPP because of the difficulties in following the PPP Act at county level. CHAI decided to pursue the Public Procurement and Disposal Act, which is better suited for procuring diagnostic services, and counties were more responsive. It has taken time for counties to understand the specifics and technical aspects proposed under AHDP, especially because there is little precedent to draw on, but overall the plan is seen as potentially beneficial.

Current negotiations are focused on what to include under the AHDP procurement umbrella. CHAI's approach has been to break down every aspect of laboratory services (e.g., building, equipment, maintenance, procurement, staff, etc.) and then work with counties to determine what to retain under the public sector and what to offload to private partner, which leads to substantial variability because each county has different appetite for retaining responsibilities. Respondents reflected that many issues with laboratory diagnostic services have been historically neglected, including the supply chain for laboratory services, data management systems for National Hospital Insurance Fund (NHIF) reimbursement, the sample referral network, administrative delays that delay patient results, and internal and external quality assurance and control programs.

CHAI's approach with counties has been to get their agreement to the idea first, and then work on the details after ("county officials can't handle too many details at once"). They present proposals with the largest potential impact, which usually means offloading most activities to the private partner, using analyses and data to present impact on clinicians, patients, facilities, and county government. Once there is interest or agreement from county officials, they move on to negotiating specifics, considering different options—including political feasibility—and making

³ County Government of Tharaka Nithi, Department of Health Services, Sanitation and ICT. Notice for Request for Expressions of Interest for the Procurement of Consultancy Services to Improve the Testing and Diagnostic Capacity of Public Laboratories in Tharaka Nithi County. Tender No. TNCG/3/2021/2022, September 2021.

concrete decisions on what to include in the plan. The two most resonant arguments are about increasing access to services (seen as a winning message for politicians) and retaining revenue for facilities that would otherwise go to the private sector.

CHAI had initially focused their county engagement on technical laboratory actors, but they are receiving the go-ahead now to engage with legal and financial teams; they have realized this should happen sooner. Others noted that stakeholder engagement needs to include relevant departments in MOH as well as semiautonomous government agencies connected to laboratory services whose role cuts across counties such as Kenya Medical Supplies Authority (KEMSA) (commodities procurement), Kenyatta National Hospital (KNH) (national hospital), NHIF (health insurance scheme), etc.

CHAI has leveraged their pre-existing relationships at county level to make progress. They flag that they can be seen as a "third party" to the PPP arrangement since they do not benefit directly—in contrast to other public–private ventures in which private partners approach government with an idea for partnership. Nevertheless, some counties still are suspicious about CHAI's motivations. CHAI feels that agreements would not move ahead without their technical assistance as there has been little attention paid to these issues at the county level thus far. CHAI has recognized that one of the biggest barriers to success will be the disruption to those who benefit from the current procurement process, so they have prioritized figuring out who benefits and how the PPP will impact them.

The county-by-county approach is very labor intensive at this point, but the goal is that the experiences of early counties lead to uptake from other counties interested in similar agreements. CHAI recognizes that in order for the model to expand across Kenya, early adopter counties must be successful. CHAI is offering close handholding to early counties so they can do well since CHAI is also under pressure to succeed.

In terms of the financial instruments available under AHDP, there has been limited discussion while the county-level negotiations have been ongoing. Still, financial instruments are seen as important for private partners but less so for counties as county governments are unable to borrow directly from EIB. Under discussions to-date, counties are expecting to cover any necessary costs to implement the agreements, with expected revenue from more efficient services seen as additional income. Nevertheless, a private partner respondent highlighted the value of including guarantees to safeguard against county government nonpayment. As for loans, it is hoped that EIB terms can be competitive to local lenders or to channel funds to local banks to provide smaller loans at the county level.

Sticking points during PPP negotiations

Several issues have been contentious. First, how to manage **laboratory workers** has been an important sticking point because, as government employees, the county cannot lay them off. Essentially, counties will be asking private partners to supervise and manage government employees. According to CHAI, CHAI's continued involvement is reassuring to private partners who are worried about this arrangement.

Second, the PPP would shift how county government conducts **procurement** for laboratories. Counties face county-specific procurement limits that could compromise how commodities are purchased under the PPP arrangement. Counties may prefer for commodity procurement to go through the private partner because it would mean less bureaucracy, and thus there is interest in private partners having access to purchasing via KEMSA. However, this change would mean disruptions for government procurement officers, which could lead to resistance.

Third, in terms of **optics**, governors are also concerned about how the PPP will be viewed, especially during an election year. They are very sensitive to being seen as privatizing health services, but others feel that a successful agreement could strengthen their election chances.

Fourth, it is an open question how **social health insurance** would cover and reimburse for services under the AHDP scheme. Currently, NHIF pays for a full service related to a disease, not for individual laboratory or diagnostic services, so it is unclear how payments will be divided between private partners and public facilities. One eventual option would be for facilities to separate out costs for different components (e.g., consultation, laboratory diagnostics, medicines, etc.) for reimbursement under NHIF, but these options have not been fully explored. There are also questions about specifics within the NHIF reimbursement package, including regularizing rates for public versus private sector.

Other issues that AHDP still needs to figure out include:

- Reaction of community laboratories that may see themselves undercut by the PPP arrangements.
- How to integrate private partners into KEMSA procurement system.

Lessons learned and recommendations

Lessons learned from AHDP negotiations thus far in Kenya include:

- Integrate procurement department responsible for purchase of reagents and laboratory supplies early into discussions to minimize resistance.
- Sensitize government officials, including legislators, to the needs and challenges faced by the laboratory system to help reinforce change.
- PPPs may end up regularizing costs of tests across jurisdictions.
- Every county that progresses offers lessons to CHAI about how to approach future counties.
- Be deliberate in identifying all possible risks and having clear criteria for allocating these early enough to provide comfort and assurance to the two parties.

Recommendations as AHDP goes forward:

- Government needs to be heavily engaged in the PPP arrangements to ensure that the agreement builds the capacity necessary in the public sector to continue offering quality laboratory services after the contract has ended.
- Clarify who will be responsible for taking over the financial investments from the private actor when the contract ends or make explicit that contracts will likely continue in the long term; increased health budgets would be needed under either scenario.
- Establish clearly defined contracts with responsibilities for each partner that 1) enumerate accountability mechanisms for breach of contract and patient complaints, and 2) clarify capacity building and supervisory roles to counteract resistance from laboratory workers.
- Ensure laboratory data systems are transparent to all stakeholders.

• Factor in the broader health system implications of transitioning to a privately run laboratory in a public facility. For example, integration with NHIF reimbursement processes.

Rwanda

The evaluation in Rwanda is being led by CIIC-HIN Ltd. To-date, 16 out of 20 planned interviews have been completed.

	Completed	Pending	Total	
Total number of interviews	16	4	20	
Affiliation				
Government, health sector	6	1	7	
Government, other	1	2	3	
Government, sub-national	0	0	0	
Health facilities	2	0	2	
Implementing partners	4*	0	4	
Private partners	2	0	2	
Professional associations	0	0	0	
Development partners	1	1	1	
Other	0	0	0	
Gender				
Female	6	2	8	
Male	10	2	12	
*Includes two respondents who were interviewed through global interviews				

Table 7. AHDP Key Informant Interviews in Rwanda (Completed and Pending)

Current PPP plans

Current PPP plans	PPP plans Plans to implement a PPP have been temporarily put on hold as the government focuses on strengthening laboratory services more broadly.	
Geographic scope	N/A	
Sequencing or phases?	N/A	
Actor with main/final authority over PPP	N/A	
Government motivations	Availability, quality, efficiency, affordability to patients. Efficiency and quality of higher importance.	
Length of agreements	N/A. Five to 10 years has been mentioned.	
Agreements of this nature from which they could learn	Several PPPs in health provide examples—most well-known were Abbott and Roche. These PPPs focused on supplying reagents for selected divisions (e.g., biology etc. for a few district hospitals). These PPPs were negotiated based on reagents volume for each partner (Roche, Abbott).	

Based on the feasibility study, as well as consultations occurring between 2020 and 2021, Rwanda was considering a PPP focused on sample transportation, with the potential to consider different phased approach PPP models in the future. The primary reasons initially motivating the government to enter into a PPP included availability, quality, efficiency, affordability of diagnostics services to patients, as well as efficiency and quality of health services. According to one respondent, a PPP agreement of 5–10 years was considered. In late 2021, plans to implement the AHDP PPP were put on hold for 1–2 years while Government of Rwanda (GOR) stakeholders are considering how to proceed with broader laboratory system strengthening. Therefore, a tender for the PPP will not be issued at this time. The GOR, through the Rwanda Biomedical Center (RBC), is prioritizing exploring a model for Diagnostic Network Optimization while strengthening provincial laboratories with a modified sample transportation system, intending to improve quality management systems within laboratory settings and a solution to respond to challenges related to sample transportation. In addition, GOR will prioritize efforts to develop a National Reference Laboratory, and to build a laboratory facility to improve laboratory quality management systems, using a loan that RBC/MOH received.

PPP negotiation process

Discussions of the PPP started in 2019, when MOH requested technical assistance for strengthening public laboratory networks. The Planning, Financing, and Evaluation Department at the MOH was tasked to work on the PPP and developed a steering committee in collaboration with CHAI and RBC's Laboratory Division. CHAI conducted both a pre-feasibility and a feasibility study to consider different PPP models. CHAI worked closely with both the MOH and RBC in this process, but some communications among these actors may have been delayed or interrupted due to leadership changes and transitions within both CHAI and RBC.

Several actors were engaged in the PPP negotiations over time, but these negotiations experienced delays due to the COVID-19 pandemic. The PPP negotiation culminated in a 5-day workshop in July 2021, which brought together diverse actors from MOH, RBC, MOF, USAID, Belgian Technical Cooperation-funded ENABEL (the Belgian development agency), and the private sector to discuss the PPP and the PPP model. A second workshop was held in October 2021; however, it is unclear whether the same institutions were convened or whether the same individuals participated, due to changes in leadership in some organizations (e.g., RBC), leading to delayed communications to some actors. Respondents reported that Rwanda Social Security Board (RSSB) was insufficiently engaged throughout the negotiation process, although they could have advised on the feasibility of the PPP given the available funding and subsidies. For example, one of the recommendations from the feasibility study assumed that RSSB would advance the payment to support the PPP's initial phase related to sample transportation. However, the RSSB was not fully aware of AHDP nor involved in the development of the feasibility studies. Additionally, changes in the leadership in the MOH/RBC, RSSB and CHAI affected the continuity of PPP negotiations and the role and relevance of the PPP model in the broader Rwandan health system.

The laboratory systems landscape in Rwanda changed significantly from the time the feasibility studies were carried out and when the PPP negotiations fully resumed, but negotiations on the PPP model took place in the context of reviewing the entry points flagged by the feasibility study. The response to the COVID-19 pandemic brought additional investments in diagnostics— in the use of information technology and messaging, and with focus on ensuring rapid turn-around times on tests. Such COVID-19-related investments and attention brought focus to strengthening laboratory systems but were not included in either the pre-feasibility or the feasibility studies, and therefore contributed to delayed PPP discussions.

Respondents noted that there was concern about private sector interest and motivation in a laboratory PPP, including worries about a private actor monopoly of the market. Additional concerns were related to complementarity between the proposed new PPP and ongoing diagnostics agreements with the private sector (namely the Roche and Abbott agreements), as well as the relationship with existing reforms such as Diagnostic Network Optimization and strengthening of regional laboratories. These reforms were initiated after the feasibility study was conducted and therefore, were not considered in the initial PPP discussions.

Sticking points during PPP negotiations

The sticking points described below highlight the concerns discussed during negotiations, as different PPP models were considered. The sticking points are not always directly related to the PPP model for sample transportation that was considered in the last stages of these negotiations. Rather, these are sticking points to the broader PPP dialogue in Rwanda and provide a snapshot of the broader concerns that stakeholders have with respect to PPPs for diagnostic strengthening. Specifically, there were sticking points around the financing of the PPP, around general perspectives on the priority of PPP, and around how to engage with the private sector, and human resources for health.

In the context of **financing laboratory services**, the role of the PPP was uncertain and concerning to several respondents. Three themes related to the financing of PPPs emerged. First, there were concerns about the long-term viability and sustainability of the PPP, as well as whether the private sector would find the PPP profitable, given that tariffs for laboratory services and health care in general are heavily subsidized in Rwanda's public health system. Specifically, government currently reimburses service providers for a minimum health care package, so any additional charges incurred at the facility level (outside of the package) may not be reimbursed. Additionally, one respondent was concerned that testing volume would be too low because Rwanda is a small country, presenting a risk that the private actor would not see a return on investments.

Second, a couple of respondents had concerns that the PPP would monopolize laboratory systems and, over time, could compromise the affordability of diagnostics. Higher pricing for diagnostics could compromise long-term financial sustainability if RSSB cannot afford to reimburse for the full cost. This could also compromise the financial viability of the health facilities in which PPP operates. According to one respondent, although there were multiple communication channels between BMGF and CHAI, the discussion around financing the PPP did not get started until later stages of the negotiation. This created an uncertainty around the project viability as perceived by RBC. Another respondent suggested that the government might have been concerned about taking an EIB loan to pay for the PPP, given concerns that the PPP could be more expensive to implement than strengthening the public sector provision of diagnostics.

Third, some government actors felt like they had insufficient information about the risk associated with various models, which led to fear that a PPP would lock government into a particular model or brand for a long period, hence gradually limiting government's ability to change strategies or prevent the private sector from increasing prices. At decentralized level, there was a lack of trust in investors and concern that the scheme may raise costs for the public

sector. Importantly, some of the skepticism towards the private sector was not necessarily about the AHDP but reflected a longer history of public/private interaction. A risk analysis was suggested by one respondent, to identify and assess potential factors that would negatively impact the PPP.

In terms of perspectives on the PPP model, respondents suggested that various stakeholders placed **different levels of priority on the PPP** based on the trade-offs they perceived related to the benefits and drawbacks of PPPs. Some of the trade-offs were driven by actors' broader skepticism towards engaging with the private sector. Those who were generally supportive of a PPP approach did not consistently support a single PPP model. While some actors supported an AHDP model prioritizing full private sector management of laboratories, others only supported specific components of the PPP (e.g., PPP for sample transportation) and/or a phased approach (e.g., starting with sample transportation and then expanding over time to other components). Stakeholder perspectives also differed about whether and how the PPP would complement overall laboratory strengthening reforms and whether the PPP at this time could be more costly to government than if the government were to upgrade its own services. For example, one respondent was concerned that replacing equipment under a PPP may lead to discarding equipment that is still of value. Another respondent was concerned that a PPP might push other suppliers out of the market. Fear of delays in public health facilities in paying bills was also expressed by one respondent.

Finally, a few respondents expressed **emerging concerns about laboratory human resources for health and the capacity of health facilities to take on a PPP**. Respondents were concerned that provincial and referral hospitals have insufficient pathologists and other laboratory specialists, and that new pathologists were difficult to deploy because of limited infrastructure, particularly in rural areas. Payment models for laboratory technicians were another related issue. In addition to salary, laboratory technicians receive bonus compensation based on key indicators such as acquiring international accreditation for a given district/province laboratory. There are concerns about what would happen with such cadres if a PPP would fully privatize laboratories and whether the PPP could train existing staff to overcome quality and turnaround time barriers.

Lessons learned and recommendations

Lessons learned from AHDP negotiations thus far in Rwanda include:

- Technical assistance for laboratory support was welcomed, appreciated, and used by the GOR.
- The PPP model was perceived by the GOR as one option to strengthen laboratories, but GOR's priority was to have an overarching strategy for laboratory strengthening, whether or not this included PPPs.
- Detailed discussion of financial instruments and PPP design are mandatory to ensure transparency and buy-in from actors most directly affected by these (e.g., health facilities).
- Many actors were engaged in discussions around the feasibility study and the PPP, which was perceived to be a positive effort. Yet some key actors responsible for financing (e.g., MOF, RSSB) and implementation (e.g., health facilities, especially

hospitals for whom operations would change) were not sufficiently engaged and consulted.

• Political buy-in needs to be sought iteratively, especially in light of leadership changes or significant policy changes or health investments.

Recommendations as AHDP goes forward:

- Feasibility studies might need to be updated periodically if the context changes significantly during the period of PPP negotiations. Government and technical actors should remain in close communication to ensure that feasibility of the PPP is actively monitored and that feasibility studies map both the existing system and emerging reforms in order understand better how the PPP would fit into broader efforts to strengthen laboratory systems. Feasibility studies should also place greater emphasis on describing how reimbursement for services in a particular context could affect the PPP, as well as local health systems.
- To facilitate stakeholders' support, the PPP needs to be communicated as supporting and complementing ongoing laboratory strengthening efforts. In Rwanda, the initial framing of the PPP and the communication strategy about it might have exacerbated concerns among actors who were already leaning to be more skeptical of PPPs. The resulting hesitancy was difficult to address. The PPP was perceived by some to be a siloed reform and not linked to strengthening the whole laboratory system, although this was clearly not what was intended.

What Are the Unresolved Issues That Threaten the Success of AHDP?

The pre-tender process evaluation has identified a series of unresolved issues and potential threats to the success of the PPPs and AHDP overall. In many ways, these represent two sides of the same coin: Any unresolved issue can threaten the success of the program. We have grouped these issues loosely into categories presented below.

In terms of **financing arrangements**, all of the countries have unresolved questions about financial details of the PPPs, such as the cost of services, how markups will be determined and how revenues will be shared between the public and private sector, reimbursement procedures for private partners, etc. Relatedly, all countries have yet to determine how existing social health insurance schemes will fit into the program, in particular the mechanics of using reimbursements from social health insurance schemes to pay private providers.

There are open questions also about how the components of the PPP will **connect to the broader health system**. For example, the definition of the test menu to be included in the PPP and how it does/does not complement services available elsewhere. Also, the evaluation team has not identified any discussions about how the Laboratory Management Information Systems (LMIS) developed or enhanced under the PPP will connect and be compatible with existing government LMIS and other health information systems. Engagement with monitoring and evaluation teams in MOHs seems critical in this regard.

Related to **private partner engagement**, there is a mix of unresolved questions. Based on our data, the evaluation team feels that none of the key stakeholders, including CHAI, has considered or made an effort to understand how the PPP would impact smaller private laboratories, especially near intervention facilities, nor whether there are any systems of kickbacks between these laboratories and facility providers that would be disrupted by the PPP. Separately, global partners are concerned about preventing private partners from monopolizing the sub-Saharan African laboratory market, which may be especially relevant if international laboratory firms place bids in more than one AHDP country.

Several **governance** factors could play a role. In concrete terms, government capacity to monitor and sustain the PPP after CHAI's involvement ends will be critical; likewise, defining who (whether an individual or institution) is responsible for addressing any problems that arise from the PPP. Related to sustainability, ensuring continued support for AHDP in the face of government staff turnovers and elections will be important. Finally, cutting across all of these factors, is the open question of how AHDP will address any resistance or blowback from those that benefit from the current system that AHDP is disrupting.

Key Messages

Here, we summarize the key messages emergent from evaluation findings.

1. **PPP design and contracting often require specific steps prescribed by existing regulations**, requiring time and commitment in addition to technical assistance and analytical work. Global actors appear to have underestimated the complexity of pursuing PPPs, which led to unrealistic expectations and pressure to move quickly.

- 2. Given the limited experience with PPPs in the health sector, CHAI and country counterparts are learning by doing in terms of designing PPPs for AHDP. From design elements to stakeholder engagement and navigating the regulatory landscape, country partners are learning together as they go. In some cases, formal PPPs have not been the right instrument to pursue.
- 3. All four countries are adopting a phased approach with different modalities. The intention is to have learning from implementation, but this will be contingent on learning systems that are established as well as future appetite for learning.
- 4. Governments do not have an appetite for PPPs that threaten laboratory staff job security. This has been a consistent sticking point across all four countries.
- 5. Government and private partners have variable levels of interest in the financial instruments offered via AHDP, which vary by context. Discussion about financial instruments has been limited to-date while program design was being negotiated.
- There were mismatched expectations between BMGF/EIB and country governments. BMGF/EIB's end goal has been to implement a PPP for laboratory diagnostics, but for country governments the end goal is improving laboratory services.
- 7. AHDP partners took into account feasibility and potential for impact in its country selection but gave insufficient consideration to the political economy and health system structure of candidate countries. Further, laboratory diagnostics and their linkage to service delivery are complex. As an entry point for PPPs, especially as an innovative model at country level, this was a challenging place to start.
- 8. As the country-facing partner, CHAI is in a difficult position at times of balancing responsiveness to government-led process and priorities against BMGF/EIB interests and desire for progress. This issue reflects the difference between how AHDP was initially organized (development partner-led) in contrast with CHAI's typical way of working (country priority-led) but also recognition that sustainability could be compromised without respecting government processes and priorities.
- 9. **Mistrust between actors and mistrust in the process has influenced the timeline and the nature of negotiations.** Each country has historical experiences with the private sector and/or with PPPs that contribute to levels of mistrust between private and public sectors (and with the public) that need to be overcome. Likewise, AHDP's global partners can be seen as external development partners driving an external agenda.
- 10. **Stakeholder management is necessary, complex, iterative, and time-consuming.** The importance of this element cannot be underestimated. CHAI country teams appear to have engaged a broad group of stakeholders in order to understand challenges and opportunities that can be served by AHDP.
- 11. Substantive challenges resulting from unresolved issues and potential threats are still to come. Challenges include issues around financing PPPs and connections to social health insurance programs, links between PPP components and the broader health system, concerns about the contracting process and private partner engagement,

and PPP governance including capacity for contract management and accountability for success.

Recommendations

Drawing on the results and key messages of the pre-tender process evaluation as well as recommendations from respondents, we present below a series of recommendations—both for current AHDP countries and future ones—and a learning agenda for AHDP.

Recommendations for current AHDP countries

- 1. **Move away from imposing timelines on government.** It is more helpful to have a process that is not pressured or rushed. Short timelines can compromise government processes and buy-in. In particular, as governments are investing their own resources, it is reasonable and necessary that they perform their own due diligence as well as ensure adherence to local regulations.
- 2. Documenting the process is critical for learning and engagement. Documentation is important for internal AHDP learning but also to onboard stakeholders brought on later in the process. The evaluation identified uninvolved actors, like academia or providers at lower levels of the health system, who lack information about the plans and what has been discussed but could play a role in ensuring success. Making available clear country-specific summary documents about the PPP proposal and discussions would be helpful in this regard.
- 3. Recognize and embrace that the time taken to adapt the AHDP model in each country is important, valuable, and not time lost. Because of the negotiations thus far, the current versions of the PPPs are better aligned to local conditions and have greater government buy-in.
- 4. Depending on need and interest, consider revisiting and updating the feasibility studies conducted at the start of AHDP. At this point, about two years have passed between the initial feasibility studies conducted by CHAI, so revised studies would take into account changes in the local context. In particular, any impacts resulting from COVID-19, both in terms of service delivery as well as prioritization and investments in the laboratory system, should inform future decision-making,

Recommendations for future AHDP countries

- 1. Ensure that any pre-entry analytical work and feasibility assessments include stakeholders familiar with the local context. Not all SSA countries will have PPP regulations, political structures or health systems that lend themselves to a PPP model, or to models that allow government borrowing or financial guarantees. Stakeholders familiar with potential AHDP countries—ideally local policymakers and technocrats—should play a role in assessing viability before moving ahead.
- 2. Global partners need to be open to flexibility in the model and allow for evolution that is responsive to the local context. AHDP needs to have a clear understanding of local country needs before pushing a specific model, including assessments of laboratory services, technical assistance needs, openness to private sector engagement, etc. It is critical for global partners to avoid making assumptions about what are country priorities or interests. A "one-size-fits-all" model is unlikely to work.
- 3. CHAI's role as broker between countries and BMGF/EIB needs to be clearer. Whose interests is CHAI advocating for in its negotiations, and how do those interests sway

negotiations? CHAI's brokering role depends on a shared understanding of a common objective, and prioritization of objectives when multiple outcomes are being pursued simultaneously (i.e., the primacy of improving diagnostic systems versus negotiating PPP deals). To-date, CHAI country teams' willingness to negotiate the terms of AHDP's predetermined model has varied by country. A more flexible, country-oriented model from the outset would preclude this issue.

- 4. **Involving mid-level managers sooner could be helpful.** While senior officials can offer the interest and commitment to garner attention and speed progress, mid-level managers in charge of programs within MOHs are the ones with the technical expertise as well as the operational knowledge to understand where existing gaps are and how a new PPP has impact on the system. Bringing them on-board sooner could alleviate any tensions.
- 5. Feasibility studies should be conducted or closely supported by government officials. Ensuring technical analyses have involvement from government can improve ownership over the process, enhance capacity to conduct similar analyses in the future, and ensure full accounting for existing or planned improvements to the laboratory system. Relatedly, timelines should offer opportunity to revisit feasibility studies if substantive changes to local conditions take place.

Learning agenda

Respondents identified key questions for AHDP's learning agenda touching on issues of how to define success to procedural questions for the program.

- 1. What are potential metrics of success (beyond PPP deals made)? (e.g., access to care, health outcomes, etc.)
 - a. How do global partners define success?
 - b. How do country governments define success?
 - c. If none of the PPPs progresses, what has been achieved?
- 2. What kind of support do governments find useful from implementing partners in processes of this nature? (e.g., analytical work, technical assistance, etc.)
- 3. Country learnings:
 - a. How can countries learn internally from previous agreements (either services for health or other laboratory contracts)?
 - b. How can the data and evidence collected by CHAI be shared with countries and more broadly?
 - c. Explore the potential for site visits for new AHDP countries to learn from initial ones.

Appendix

Process Evaluation Research Questions for AHDP Implementation Phase

Domain in TOC	Overarching Question	Detailed Related Questions	
Timely strategic	IP1. How does the available evidence from monitoring, learning and	How are data from MLE processes influencing AHDP implementation?	
decision- making	evaluation, and information systems influence decision-making in AHDP?	Do existing laboratory information monitoring systems generate relevant information for PPP decision makers? If so, how is it being used?	
		Are contract performance metrics useful for PPP decision-making?	
Tender is implemented and impacts diagnostic	IP2. Has the AHDP program increased the number of diagnostic PPPs in place?	How has AHDP implementation support affected implementation capacity (e.g., among government, health care facilities, and private partners)? To what extent is the model sustainable without such implementation support?	
service organization	IP3. How is the PPP implemented?	Is the PPP implemented as designed? If not, what are the adaptations that have been made and what issues were they responding to?	
and management		To what extent is the PPP being implemented according to agreed-upon timelines?	
		Are private sector firms involved in PPPs being paid in a timely and appropriate fashion?	
		How do health staff and facility managers respond to the PPP, and does this differ by gender? Is the model acceptable and relevant to them? Is there potential resistance? (Risk)	
		How effectively is government monitoring the PPP and ensuring that private partners adhere to the terms in the contract? (Risk)	
Increased government	IP4. How has government spending on diagnostics changed?	What portion of the government health budget is spent on diagnostics?	
spending on diagnostics and sustainable financial	IP5. How sustainable are the financing arrangements for the PPP?	Is there a financial plan in place to continue to support AHDP diagnostic services in the future?	
plans			
Market shaping	IP6. How does the AHDP affect the overall diagnostic market?	What is the change in the number of private sector diagnostic companies securing national or international accreditation?	

Domain in TOC	Overarching Question	Detailed Related Questions	
		What is the change in the number of diagnostic companies registered to operate in the country?	
Private sector willingness	IP7. How has the private sector's willingness and ability to participate in	How seriously do private sector providers perceive the barriers to participating in PPPs to be?	
and ability toAHDP evolved with implementation ofparticipatethe PPPs?	How does the PPP arrangements affect the intention of private sector diagnostic firms to establish or expand their business in AHDP countries?		
		How do the PPP arrangements affect small-scale private diagnostic providers who are unable to bid on PPPs? (Risk)	
		What role have financial instruments (e.g., sovereign guarantees, low-interest loans) played in supporting private sector participation in AHDP?	