A Review of Public Private Partnership Activities in Health System Strengthening
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Introduction

Global health programs and partnerships have historically focused on narrow, quantifiable aspects of global health challenges, especially communicable diseases on which they can make a measurable impact. Particularly in the context of the 2008 to 2009 global financial crisis, donors focused their investment on “high impact interventions” – mostly vertical programs that could demonstrate “value for money” through decreases in disease-specific morbidity and mortality (Glassman et al., 2013). While metrics over the last decade show important reductions in the top causes of mortality (CDC, 2011), low and middle income countries (LMICs) continue to require support for crumbling health systems that fail to sustain program achievements and meet the demand for additional health care priorities. In the long term, vertical programs are only as effective as the health system in which they reside.

Lessons learned from un-sustained success in disease eradication, as well as failed responses to acute health crises, demonstrate the need for an enhanced approach to global health programming. Authors of the Lancet’s Global Convergence Series suggest a “diagonal” approach to health programming, which could support decreases in mortality in LMICs to the level of high income countries (HICs) by 2025. In a diagonal approach, health system strengthening (HSS) activities are prioritized along with vertical, disease-focused initiatives to create a system that can support the care for each person across his or her lifecycle.

“Structural investments in the health system should accompany all spending—global or domestic—on discrete interventions…. (These investments) would coalesce into a basic multifunctional health service delivery platform that can provide lifelong care for people with chronic diseases and can establish a base to treat a range of health concerns” (Jamison et al., 2013).

A diagonal approach supports the equitable distribution of resources between disease-oriented programming and support for major health system functions, which are critical to sustaining any activity working towards improved health for all.

Public Private Partnerships

Innovative strategies for HSS are required to strengthen the platform upon which vertical health programs are based. Partnership with the private sector is not a new idea – a 1993 World Health Assembly Resolution urged the World Health Organization (WHO) “to
mobilize and encourage the support of all partners in health development, including nongovernmental organizations and institutions in the private sector” (Buse and Waxman, 2001). The World Health Organization (WHO) describes Public Private Partnerships (PPPs) for Health as “public sector programmes with private sector participation” (WHO, 2015c), a vague definition that allows for many shapes and sizes of PPPs. A government partner sits at one end of the table, setting the priorities and rules under which private organizations operate (WHO, 2015c). On the other end are private for-profit entities, non-governmental organizations (NGOs), and/or large multi-stakeholder initiatives such as Roll Back Malaria, the Global Polio Eradication Initiative, the Global Alliance for Vaccines and Immunization (GAVI), and the Global Fund for HIV/AIDS, Tuberculosis and Malaria (Dare, 2003). PPPs are actively involved in vertical programming, but only a few make HSS their primary focus. In fact, only one out of 90 international health-related PPPs in 2007 “focused on improving health systems beyond specific diseases” (Barr, 2007). Today, private sector participation in HSS is slowly gaining momentum, as more and more PPPs are endeavoring HSS-related activities in accordance with the current emphasis on diagonal approaches to global health programing.

But how effective are PPPs for HSS? The Global Convergence Series recognizes a gap in the knowledge-base regarding the “advantages and disadvantages of various mixes of public and private provision”, and whether PPP’s “can improve efficiency, access, and quality in health care delivery” (Jamison et al., 2013). Literature in this area is scattered – some articles detail the experience of private sector providers filling gaps in public health care delivery. Other articles detail multi-stakeholder initiatives attempting to bolster the health workforce or access to / availability of medical products. There is limited evidence of PPPs addressing the health system as a whole; the author of this review found only two articles in which PPPs attempted system-wide activities. The author did not find any review articles that collated the experience of PPPs to better understand the advantages and disadvantages of various “mixes” – a gap that this review paper aims to fill.

Institute of Medicine Workshop on the Long-term Picture for Health Systems: The Role of Public-Private Partnerships in Health Systems Strengthening

The Institute of Medicine (IOM) established the Forum on Public-Private Partnerships for Global Health and Safety to identify opportunities that strengthen the role of PPPs in meeting the health and safety needs of individuals and communities around the globe, particularly those in LMICs. The Forum is sponsoring a two-day workshop on June 25th and 26th, 2015, in New York City, to discuss PPPs as they relate to HSS. The workshop objectives are to examine a range of innovations, incentives, roles, and opportunities for all relevant sectors and stakeholders in strengthening health systems through partnerships; explore lessons learned from previous and ongoing efforts with the goal of illuminating how to improve performance and outcomes going forward; and discuss measuring the value and outcomes of investments and documenting success in partnerships focused on HSS. For the purposes of this workshop, the health system is comprised of all actors, organizations, and
resources working towards improved health for all. It is inclusive of personal health care delivery services, public or population health services, health research systems, and policies and programs within other sectors that address broader determinants of health. Additionally, a health system with robust public health services includes: mechanisms for monitoring health status to identify and solve community health problems; diagnosing and investigating health problems and health hazards in the community; health promotion; community participation in health; developing policies and plans that support individual and community health efforts; enforcing laws and regulations that protect health and ensure safety; promotion of equitable access; human resources development and training in public health; quality assurance; public health research; and reduction of the impact of emergencies and disasters on health. Further, recognizing that the health of individuals and communities is influenced by factors that are often outside the purview of the traditional health sector—such as the social, economic, and built environments—for this workshop the health system has been operationalized to include policies and programs within other sectors that address these determinants. Such sectors include finance, education, transportation, and information communication technologies, among others.

This literature review is intended to inform the workshop audience of lessons learned during previous iterations of PPPs involved in HSS, in order to inspire Forum members and the public audience to share experiences that might fill gaps in the literature, and discuss alternative models of PPPs that address obstacles experienced in the past. This review is structured around three major themes that emerged from the literature – service delivery, health workforce, and medical technology – demonstrating the tendency of PPPs to focus on components of the health system instead of the health system as a whole. As previously mentioned, the author came across only two attempts at system-wide strengthening; these are discussed in detail to demonstrate the opportunities and challenges of PPP participation in health system-wide programming.

**Methods**

The key research question for this review is the following: How have public private partnerships supported health system strengthening? The author of this review defined health system strengthening as any activity aimed at improving the function of the health system, either by targeting a particular component or the health system as a whole (WHO, 2007). Using the WHO definition of “Building Blocks”, these components include leadership and governance, financing, workforce, medical products and technology, information systems, and service delivery (Savigny and Adam, 2009); each are critical to all donor-supported and government health programs. The author initiated the review by conducting searches for peer-reviewed literature on EBSCO, PubMed, and Google Scholar using a combination of the following key terms: health system, health system strengthening, private sector, public private partnership. The author examined the reference section of each article to find other relevant literature. To isolate key articles for the review, the author excluded articles that dealt with HSS outside the context of LMICs. The author also excluded articles that did not elaborate on a partnership between public sector and private...
sector entities. Public sector entities could include national and local health authorities, while private sector entities could include community based organizations, for-profit corporations, and multilateral organizations.

**Service Delivery**

“... including effective, safe, and quality personal and non-personal health interventions that are provided to those in need, when and where needed (including infrastructure), with a minimal waste of resources...” (Savigny and Adam, 2009)

According to the author, Berthollet Bwira Kaboru, a public-private mix (PPM) approach to health care delivery involves an integrated system of public health care providers and for-profit, not-for-profit, and/or informal providers (Kaboru, 2012). In Pakistan, 206 public/private service organizations and 600 NGOs are providing health care services and conducting health-related research and advocacy (Ejaz et al., 2011). Encouraging the PPM approach in Pakistan is the Chief Minister’s Initiative on Primary Health Care, through which 69 district governments – starting with the Rahim Yar Khan district – have signed memorandums of understanding (MOUs) with the Punjab Rural Support Programme (PRSP) to run basic health units in rural areas (Ravindran, 2010). Similarly, District Health Offices in Malawi have signed service level agreements (SLAs) with Malawi’s leading faith-based provider, the Christian Health Association of Malawi (CHAM), to operate rural health facilities; CHAM now operates 35% of all health facilities in the country (Chirwa et al., 2013). In Vietnam, private health care providers deliver 60-75% of ambulatory care and up to 4% of inpatient services. In all three countries, PPM is largely considered a “promising alternative” to the “inadequate” – and sometimes “inept” – public health care system, which fails in particular to provide health care services for the rural poor (Ejaz et al., 2011, Chirwa et al., 2013, Duc et al., 2012).

A PPM approach to health care delivery leverages the inherent advantages of private sector organizations. According to Ejaz (2011), NGOs are particularly skilled in human resource management; they are able to hire and supervise staff more quickly and effectively than the Ministry of Health and local health authorities. NGOs are also able to promptly acquire specialized equipment and be more creative with health promotion activities. Furthermore, NGOs are considered to foster better relationships with beneficiary communities. Chirwa (2013) echoes the advantages of incorporating private sector providers into the health care system: increased technical efficiency and the ability to bypass “overly bureaucratic government procedures and overcome absorptive capacity constraints in the scale up of services”. Considering the impact on public health care facilities, both government and non-government participants in the study by Duc et al. (2012) were encouraged by the potential to reduce overcrowding in public health care facilities, thereby reducing government costs and giving clients more choices for services. The three examples demonstrate how a more effective integration of private sector providers into the health care system could relieve the burden on public health facilities while improving personnel management, use of technology, creativity in services, and community relationships.
The mechanics of integrating private sector providers, however, remain a challenge. Though the availability of CHAM providers in Malawi led to improved utilization of health care services in rural areas, costs escalated without reciprocal increases in reimbursement from the public sector. For example, Mulanje Mission Hospital experienced an increase of 23% in the utilization of maternal health services between 2006 and 2011, which resulted in a 56% increase in costs for these services. According to CHAM facility level managers, quality of care decreased as hospitals struggled to balance insufficient resources with the rise in utilization. Overutilization also caused CHAM facilities to frequently run out of drugs. If the Central Medical Stores could not keep up with the demand, CHAM facilities resorted to purchasing more expensive drugs from private drug suppliers, leading to greater cost escalation. To make up for rising costs, some CHAM facilities unilaterally revised their service price lists; this list stated the price at which District Health Offices would reimburse CHAM facilities for services. Although District Health Offices did not approved these revisions, they simply could not afford to reimburse CHAM facilities regardless of the revisions, which lead to resentment, mistrust, and eventually the cancellation of many SLAs (Chirwa et al., 2013).

Inconsistent (or non-existent) reimbursement, drug stockouts, and decreasing quality of health care services characterize PPMs in Pakistan, Malawi, and Vietnam (Chirwa et al., 2013, Duc et al., 2012, Ravindran, 2010). Other challenges with PPMs include ineffective referrals between private sector health facilities and government operated hospitals (Ravindran, 2010, Duc et al., 2012); insufficient integration of national health promotion programs with private facilities (Ravindran, 2010); mistrust due to the rapid introduction of private sector providers without the consult of local government stakeholders (Ravindran, 2010, Chirwa et al., 2013); and a lack of human and financial resources at the district government level resulting in weak capacity for regulation, monitoring, and quality assurance at private facilities (Duc et al., 2012).

Is reliance on private sector health care providers for service delivery a stopgap or a permanent solution to the inadequacies of the government health care system? The government’s reliance on the private sector, noted a donor agency representative, is an acknowledgement “that the government does not trust its own system”, and would not lead to an overall strengthening of the health care system “unless the thinking changes at the strategic level and there is a clear policy push in that direction” (Ejaz et al., 2011). Private sector providers remain an integral part of health care systems, although there needs to be continued strengthening of government health care services to decrease reliance on the private sector and provide beneficiaries with comparable choices for quality health care services.

**Health Workforce**

“... responsive, fair, and efficient given available resources and circumstances, and available in sufficient numbers...” (Savigny and Adam, 2009)
The Emergency Hiring Program in Kenya is an example of how the business savvy of the private sector can strengthen a key component of the health system—the health workforce. In 2008, Kenya had less than two physicians (1.79) and less than four nursing and midwifery personnel (3.81) per 10,000 people (WHO, 2015a). Hospitals were overwhelmed with HIV/AIDS patients—384 people died in 2000 due to HIV/AIDS (WHO, 2015b). Kenya’s Emergency Hiring Program sought to address the health workforce shortage and HIV/AIDS burden, which was exacerbated by the lack of knowledge about HIV/AIDS care. The Kenyan Ministry of Health, Capacity Project (a global initiative of the United States Agency for International Development [USAID]) and Management Sciences for Health founded a PPP to support the Emergency Hiring Program. Stakeholders from the Ministry of Health, Directorate of Personnel Management, Ministry of Education, and Ministry of Finance informed on the program design. The group selected Deloitte & Touche, Kenya, to carry out the following core business functions: staff attraction, screening and selection, recruitment, training, deployment, payroll and benefits, management, and retention. Private academic and charitable institutions, including the African Medical and Research Foundation, Kenya Medical Training College, and Kenya Institute of Administration, supported health workforce training and exposure to best practices for HIV/AIDS care. The recruitment and training process took around six months; those who completed the process were given three-year contracts, after which they were absorbed by the Ministry of Health. At the time the article was published in 2008, 830 health care workers were hired, trained, and deployed under the program to 219 public health facilities (Adano, 2008). It is not certain how effective the new health care workers were overall, or to what extent the Emergency Hiring Program impacted HIV/AIDS-related deaths. The author also provides no comment on partnership dynamics. WHO statistics, however, demonstrate country-wide reductions in HIV/AIDS deaths—from 384 deaths in 2000 to 127 in 2012 (WHO, 2015b). Kenya also experienced increase in the health workforce between the publishing of the article (2008) and 2012—from 1.79 to 1.89 doctors per 10,000 people, and from 3.81 to 8.22 nurses and midwives per 10,000 people (WHO, 2015a). This area of PPP activities would benefit from a discussion of indicators and measurement tools to assess the impact of health workforce recruitment and training programs.

Medical Technologies

“... including medical products, vaccines, and other technologies of assured quality, safety, efficacy and cost-effectiveness, and their scientifically sound and cost effective use...” (Savigny and Adam, 2009)

Incentivizing pharmaceutical and vaccine development for diseases that primarily impact LMICs has always been a challenge. “(D)eveloping and producing vaccines is a costly business, and the incentives to invest in vaccines appropriate to the disease profiles of the developing world are not sufficient. It is what economists call a ‘market failure’” (Adlide et al., 2012). PPPs endeavor to fill the gap in development and access to pharmaceuticals by
leveraging the strengths and resources of public sector institutions, academia, the pharmaceutical industry, the biotech sector, contract research organizations, and NGO organizations to meet the need in LMICs (Croft, 2005). As a PPP, GAVI consolidates demand in LMICs to incentivize pharmaceutical production, and then speeds the availability and use of drugs through partnerships with industry, multilateral agencies, and beneficiary governments. Individuals who are integrated in GAVI’s governance structure are key to the PPP’s success, contributing technical skills in their respective areas to solve issues related to drug development and access (Adlide et al., 2012).

Many PPPs focus just on the product development side, leveraging the strengths of the public and private sectors to develop new drugs for neglected diseases. According to the author, Simon I. Croft, disease expertise is typically housed within academia and the public sector; these experts provide “the technology and ideas from the genome to the structural biology that enables rational drug design” (Croft, 2005). Industry employs its skills in pharmacology, assay development, toxicology, scale-up chemistry and formulation to translate these ideas and knowledge into the development of safe and effective pharmaceuticals. Examples of Product Development (PD) PPPs include Merck’s partnership for onchocerciasis, Pfizer’s partnership with the International Trachoma Initiative, and the GSK/Merck partnership with the WHO for lymphatic filariasis (Mackey and Liang, 2012).

The WHO’s Special Programme for Research and Training in Tropical Diseases (TDR), a collaboration founded in 1974 by the WHO, World Bank, and the United Nations Development Programme, provides funding for disease research and pharmaceutical development using international, governmental and philanthropic contributions (Croft, 2005, Mackey and Liang, 2012). TDR has funded several PD PPPs, including the Global Forum for Health Research, the Multilateral Initiative for Malaria, the Medicines for Malaria Venture, the Strategic Initiative for Developing Capacity in Ethical Review, Drugs for Neglected Diseases Initiative, and the Forum for African Medical Editors and the Foundation for Innovative New Diagnostics (Zicker, 2007). TDR also assists in procuring raw materials, conducts quality control, and exposes PD PPPs to the tools and networks they need to advance drug discovery and development.

One example of a TDR-supported PD PPP is the Medicines for Malaria Venture (MMV). Established in 1999, MMV has recently accelerated the development of novel synthetic peroxides, a component of the antimalarial drug, artemisinin. Development went from basic chemistry to clinical trials in just four years, involving scientists from the United States, Europe, and Australia (MMV, 2002, Vennerstrom et al., 2004) According to Croft, keys to success within this PD PPP include clear objectives, regular interaction among and between researchers, the MMV, and industry, and feelings of loyalty, commitment, and enjoyment in the work environment (Croft, 2005).

PPPs that support drug development and access benefit from the unique skills each partner brings to the process; however, they continue to struggle with partnership strategy, vision and goals, governance, organizational effectiveness, ethics, country support, and sustainability. In a review by Kent Buse and Sonja Tanaka, GAVI and MMV were not without problems. At the time the review was written (2011), GAVI experienced a multitude of
issues, including a “(n)eed to identify and promote added value of partnership, accounting for evolving landscape”; “(b)oard members are unable to adequately represent their respective constituencies”; “(p)oor transparency of governance and decision making processes”; “(w)eak strategic planning and/or lack of an overarching partnership strategy”; “(w)eak partnership performance evaluation framework and accountability mechanisms”; “(p)olicies and funding allocations not based on strategic priorities”; “(i)nadequate identification and support of cost-effective interventions”; “(i)nadequate investment of effort in data collection and analysis to drive consensus on opportunities”; “(m)echanisms to promote country ownership are weak”; “(i)nadequate support to building country capacity”; “(c)ountry activities are not sufficiently tailored to country performance, capacity and needs”; and “(i)nadequate support to strengthening information systems and monitoring capacity in country”.

MMV experienced mostly different challenges, according to Buse and Tanaka; those included a “(l)ack of sufficient governance mechanism to ensure inclusive and joint decision making”; “(s)takeholders and partnership priorities are not adequately represented by Board composition”; “(s)ecretariat structure/staffing does not support partnership effectiveness”. Both MMV and GAVI had two similar issues in common: “(p)oorly defined roles and responsibilities of partners”; and “(p)oor mechanisms to ensure long term financial sustainability of programmes” (Buse and Tanaka, 2011). In fact, these issues are similarly experiences by PPPs involved in strengthening other components of the health system, leading one to believe that weak financial sustainability and inadequate definition of roles & responsibilities to be among the greatest challenges facing PPPs for HSS.

“Whole” Health System Strengthening

Where most PPPs focus on a single component of the health system, occasionally a brave PPP will take on the health system as a whole. GAVI and Pink Ribbon Red Ribbon (PRRR) are two such international PPP that attempted “whole” HSS through initiatives that ran parallel with their regular activities.

Pink Ribbon Red Ribbon

According to authors Doyin Oluwole and John Kraemerb, PRRR is a PPP designed to support cancer control—in particular, cervical cancer—in Africa and Latin America. The authors use the term “diagonal approach” to describe the partnership’s strategy of benefitting from existing vertical programs, such as those established for HIV/AIDS control. “In countries with strong, decentralized HIV service delivery systems, it is sensible and feasible to integrate HIV and cervical cancer services, a process that can be greatly facilitated by the experience these countries have gathered in the area of chronic disease management.” (Oluwole and Kraemer, 2013). Four organizing members of the partnership include the George W Bush Institute, The President’s Emergency Plan for AIDS Relief (PEPFAR), Susan G Komen for the Cure, and the Joint United Nations Programme on
HIV/AIDS (UNAIDS). Other members include Becton, Dickinson and Company, the Bill & Melinda Gates Foundation, the Bristol-Myers Squibb Foundation, the Caris Foundation, GlaxoSmithKline (GSK), IBM, Merck, QIAGEN, and others. The PRRR’s Secretariat sits at the George W Bush Institute and addresses gaps by working with existing partners. The PRRR Steering Committee, which acts like a board of directors, addresses high-level issues with the support of ad hoc working groups. In each country, the Ministry of Health leads a Technical Working Group to develop the national strategy and plan for cancer control. Country-specific teams, which include a mix of public and private actors from PRRR member organizations, implement the national plan and coordinate activities.

The PRRR partnership has yet to conduct a formal evaluation of its activities in Africa and Latin America; however, future models of PPPs can learn from aspects of the partnership that operated well. Because cancer control requires a functioning continuum of care, the involvement of partners that spanned the continuum—from pharmaceutical and vaccine developers, to health educators, to public and private health care providers—allowed PRRR to “capitalize on the particular efficiency and expertise of different organizations while avoiding duplication of effort among them.” For example, Merck and GSK were able to offer vaccines for free or at discounted prices. Other private organizations were able to procure commodities rapidly and as needed. UNAIDS lent PRRR the credibility it had with government and civil society organizations, thereby enhancing PRRR’s community buy-in. To ensure all parties remained accountable, the PRRR required pledges to be made publicly; every quarter, the country-level secretariat determined if commitments were on track and reported their status to all PRRR members.

Flexibility, adaptability, communication and coordination are the main takeaways from the article by Oluwolea and Kraemerb. While the authors write little about the aspects of the partnership that did not work well, they do suggest an opportunistic approach to HSS. The speed at which private organizations can accomplish goals is generally an advantage, but the lengthy vetting processes of their government partners can frustrate these organizations. Therefore, the authors suggest a flexible, opportunistic approach that allows for support to be mobilized when high-priority needs are identified. And with all partnerships, the authors encourage well-planned coordination mechanisms and frequent communication.

GAVI

Even well-established PPPs have yet to master the art and science of maintaining partnerships and contributing to stronger health systems. According to the author, Joseph F. Naimoli, the experience of GAVI in HSS “provides further evidence that the business of partnering can be complicated, messy, and rife with pitfalls, and the learning curve steep” (Naimoli, 2009). GAVI’s foray into HSS was motivated by criticism that the PPP was too vaccination-focused, and that it needed to find innovative strategies to support countries who were falling behind on immunization coverage targets. Thus, the goal of GAVI’s HSS initiative was to improve immunization coverage and maternal and child health outcomes through a whole-system approach. The partnership did acknowledge the risks associated with undertaking HSS, such as not achieving value for money, inappropriate use of funds,
unsustainability, and limited absorptive capacity on the side of national governments. Still, GAVI decided to pursue HSS in parallel with its regular vaccine-related activities. GAVI’s Secretariat and a Task Team (TT) chaired by the WHO, UNICEF, and the World Bank, established the global strategy along with an HSS design team and Reference Group. Governance structures at the country level varied with each iteration, but included government stakeholders, civil society representatives, and NGOs.

In a thorough study on GAVI operations at the global and country level, Naimoli found countless deficiencies in design appropriateness, governance, management, monitoring & evaluation, and capacity building. In designing GAVI’s overall strategy for PPP, partners struggled to reach consensus given their different definitions of the health system, experience in HSS, and overall values. Collaboration within the TT also faltered due to unclear member roles/responsibilities and mutual accountabilities; irregular leadership and unclear lines authority; shifting mandates; unequal member influence; and inadequate processes for conflict resolution and joint decision-making. GAVI’s crisis management style was a burden on GAVI partners and participating governments, who were not able to accomplish tasks with a high level of quality, or involve the right mix of stakeholders, given short deadlines and last minute guidance. In accordance with monitoring & evaluation plans, many governments were not able to provide baseline data or support route data collection as required. Furthermore, partners questioned the appropriateness of indicators and targets, and whether or not they were in line with national health sector priorities. Finally, capacity building was seen as inadequate, with not enough partners represented in at the global or country level, and thus in the design or implementation of the HSS initiative.

“To its credit,” states Naimoli, “GAVI has taken a bold step in trying to carry through on the longstanding challenge in global health to bridge the divide between vertical and horizontal modes of delivering priority health services” (Naimoli, 2009). Indeed, future models of PPPs can learn from GAVI’s experience in order to form innovative strategies for HSS and diagonal approaches to global health programming. In the meantime, GAVI’s HSS initiative is characterized by confusion, disagreement, a lack of trust, and a lack of incentives to keep partners engaged. Additional operational research is necessary to understand the best ways for moving forward given the challenges of multi-stakeholder partnerships for HSS.

Discussion

This review serves as a background paper for the IOM Workshop on the Long-term Picture for Health Systems: The Role of Public-Private Partnerships in Health Systems Strengthening. Based on the literature contained in this review, future iterations of PPPs involved in HSS could take the following actions to address key challenges experienced in the past:

1. Consult with national, district, and community stakeholders, in particular local health authorities, to identify health priorities and needs at each level
2. Integrate key stakeholders in the partnership at the global and country level who have technical skills in all the processes involved for HSS; for example, drug development, procurement, distribution, infrastructure, health workforce management, health care provision, monitoring & evaluation, health education, community buy-in, etc.

3. Explore shared values and establish an agreed-upon definition of the health system, upon which partners can establish programmatic goals and objectives.

4. Precisely define and communicate the roles & responsibilities of each partner, including mutual accountabilities and lines of authority.

5. Consult regularly with all national, district, and community level stakeholders to ensure program activities are in line with actual needs, and any unintended adverse consequences are addressed.

6. Define strategies for conflict resolution and joint-decision making; communicate with partners regularly to keep everyone engaged.

7. Establish a timeline that is practical and manageable, and communicate this to all partners and relevant stakeholders.

8. Keep partners accountable by publicizing commitments and tracking progress regularly and transparently.

9. Establish a plan to ensure long-term financial sustainability, taking into account the costs associated with health care delivery in remote and rural areas, as well as rising costs associated with rising demand for services.

10. Collaborate with industry partners to ensure sustainability and affordability of drug supply.

11. Recruit, train, and maintain an adequate workforce to support the rise in demand for health care and supportive services.

12. Establish a plan for referral and health information systems to connect privately operated health facilities and government facilities.

13. Ensure adequate integration of national health programs and policies at privately operated health facilities, taking into account any additional resources or support necessary.

14. Support government health authorities to conduct regulation, monitoring, and quality assurance.

15. Support government stakeholders involved in baseline and routine data collection to ensure program monitoring & evaluation.

Noticibly absent from the literature is a critical examination of the incentives that motivate private sector entities to join PPPs, especially PPPs that seek to strengthen health systems (where the immediate benefit is harder to measure). Much skepticism exists in the public sector regarding industry incentives for participating in PPPs (Reich, 2000, Barr, 2007). The authors, Buse and Tanaka, acknowledged the importance of incentives by contending that values and interests must be understood in order to appeal to and maintain partners. Potential incentives for the private sector to participate in PPPs include networking opportunities, access to knowledge, exposure to best practices, and entrée into new markets. Buse and Tanaka, both from UNAIDS, suggest appealing to the private sector’s profit-oriented values and need for a “return on investment” (Buse and Tanaka, 2011). A question, however, remains: why would private sector entities participate in HSS
activities where the return on investment is not immediate (and often difficult to measure)? Private sector perspectives may address the skepticism of the global health and development communities, and illuminate strategies to maintain successful PPPs.

Understanding public and private sector incentives is one step to understanding program sustainability; incentives are necessary to ensure partnerships last as long as it takes for health system goals to be met. Sustainability of health system achievements is also critical, but how do PPPs measure their impact on health systems? Unsurprisingly, literature on PPPs barely addresses sustainability of partnerships and achievements in HSS. Only two articles make general remarks on sustainability, suggesting PPPs establish flexible partnerships, long-term financing, and risk-management mechanisms to stand the test of time (Reich, 2000, Buse and Tanaka, 2011). Discussions at the workshop will be a useful first step in filling the literature gap on sustainability in PPPs for HSS.

**Conclusion**

Diagonal approaches to global health programming will allow a convergence to happen within the decade; thus, PPPs that continue to address disease priorities AND strengthen health systems will help LMICs reduce mortality to the level of HICs by 2025. As public and private organizations become more active in pursuing HSS strategies, the workshop serves as an opportunity to examine new models of partnerships that account for sustainability, incentives, measuring performance, and addressing the key challenges experienced in the past. This literature review encourages Forum members and the public audience to share experiences that fill gaps in the literature, and to discuss alternative models for PPPs that meet the challenges of HSS and improve performance and outcomes going forward.
References


