Health Workforce Innovation: Accelerating Private Sector Responses to the Human Resources for Health Crisis

Private Sector Task Force Report
Global Health Workforce Alliance
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This piece of work has been commissioned by the Global Health Workforce Alliance (the Alliance), a partnership hosted by the World Health Organization (WHO), as part of its mandate to implement solutions to the health workforce crisis. The views expressed in this report do not necessarily reflect the official views of the Alliance. In preparation of the report the Alliance is grateful to all the members of the Private Sector Taskforce especially, Jeffery Moe, (Taskforce Director), Michael Merson, (Taskforce Co-chair) and Caroline Hope Griffith, (Taskforce Officer).
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### Acronyms

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<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACHEST</td>
<td>African Centre for Global Health and Social Transformation</td>
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<tr>
<td>ACT</td>
<td>artemisin-based combination therapy</td>
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<td>ADDOs</td>
<td>Accredited Drug Dispensing Outlets</td>
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<td>AHF</td>
<td>AIDS Healthcare Foundation</td>
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<td>AMC</td>
<td>Association of Rural Physicians</td>
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<tr>
<td>AMREF</td>
<td>African Medical Research Foundation</td>
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<td>ANS</td>
<td>Advanced Nursing Studies</td>
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<tr>
<td>ART</td>
<td>antiretroviral therapy</td>
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<tr>
<td>ARTIS</td>
<td>antiretroviral therapy information system</td>
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<tr>
<td>BD</td>
<td>Becton, Dickinson and Company</td>
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<tr>
<td>CBHI</td>
<td>Community Health Insurance Plan</td>
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<tr>
<td>CCF</td>
<td>co-ordination and facilitation</td>
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<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention (United States)</td>
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<td>CFWClinics</td>
<td>Child and Family Wellness Clinics</td>
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<td>CHMI</td>
<td>Center for Health Market Innovations</td>
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<td>CHW</td>
<td>community health worker</td>
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<tr>
<td>COHSASA</td>
<td>Council for Health Service Accreditation of Southern Africa</td>
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<tr>
<td>DFID</td>
<td>Department for International Development (United Kingdom)</td>
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<tr>
<td>FBO</td>
<td>faith-based organization</td>
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<tr>
<td>FMPOS</td>
<td>Faculty of medicine, pharmacy, and dental medicine</td>
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<td>GHWA</td>
<td>Global Health Workforce Alliance</td>
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<td>HCOA</td>
<td>Health Careers of America</td>
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<td>HCW</td>
<td>health care worker</td>
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<td>HIV</td>
<td>human immunodeficiency virus</td>
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<td>HRH</td>
<td>human resources for health</td>
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<td>HSSP</td>
<td>Health Services and Systems Program</td>
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<td>HWInc</td>
<td>Health Workforce Incubator</td>
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<tr>
<td>ICT</td>
<td>information and communication technology</td>
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<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
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<tr>
<td>IPIHD</td>
<td>International Partnership for Innovative Health Care Delivery</td>
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<tr>
<td>KD-AGA</td>
<td>Kampala Declaration and Agenda for Global Action</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>MKI</td>
<td>Medical Knowledge Institute</td>
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<td>MOH</td>
<td>Ministry of Health</td>
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<td>MSH</td>
<td>Management Sciences for Health</td>
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NCK  Nursing Council of Kenya
NGO  non-governmental organization
PEPFAR  President’s Emergency Plan for AIDS Relief
PMTCT  Prevention of mother-to-child transmission of HIV
PPD  public-private dialogue
PPIP  public-private investment partnership
PPP  public-private partnership
PSP  private sector partnership
PSTF  Private Sector Task Force
SBM-R  Standards-Based Management and Recognition
SME  small and medium enterprises
TASO  The AIDS Support Organization
TUTAPE  Tulane University Technical Assistance Program
UNDP  United Nations Development Programme
UPMA  Uganda Private Midwives Association
USAID  United States Agency for International Development
WHO  World Health Organization
ZAAI  Zambia Access to ACT Initiative
Abstract

In 2006, the World Health Organization (WHO) estimated a global shortage of 4.3 million health workers. Of the 57 countries with a critical shortage, 36 are in sub-Saharan Africa.¹ The private sector plays a critical role in responding to the human resources for health (HRH) crisis, and governments play a role in creating environments that engage the private sector.

“Disruptive innovators”, develop simpler and cheaper services or new business models to provide services.² In response to the HRH crisis, the Global Health Workforce Alliance (GHWA) Private Sector Task Force (PSTF) found “health workforce innovators” whose activities are novel, create tension with accepted practices, incite change, and are worthy, in many cases, of expansion and replication. To examine how the private health sector is innovating in response to the HRH crisis, determine what enables health workforce innovation in the private health sector, and suggest how innovative responses can be accelerated, the PSTF reviewed 31 initiatives in low-income countries that increased the supply, improved the effectiveness, and/or slowed attrition and misdistribution of health workers.

PSTF discovered that while these private sector actors were developing new models for care delivery, financing care, or regulating performance,³ they were also finding alternative ways to supply and optimize their health workforce. But for the private sector response to expand, greater support for the organizations and firms themselves is needed, as is support from the enabling environment that fosters the innovators. Health workforce innovations observed by the PSTF often do not fully expand or scale in their existing locale (which frequently includes rural, poor, and under-served areas) and rarely replicate into other markets or national contexts.

The PSTF identified and described enabling environment factors that constrain the growth and replication of these innovations. For the private health sector, we use the term “enabling environment” to describe a milieu of health and business institutions, capabilities, capital and labor markets, and legal systems that allow health-related businesses and organizations to form and grow. The workforce innovators are co-dependent on these enabling environments such

that their activities are constrained/potentiated by the environment and
the health workforce innovators are influencing the environments in
which they operate. The causality between the enabling environment
and the innovator is bidirectional. The PSTF identified nine enabling
environment factors that influence health workforce innovation: (1)
government engagement, (2) political will, (3) health worker advocacy
organizations, (4) local ownership, (5) civil society, (6) business and
capital, (7) technology, (8) education and training, and (9) health
workforce innovators.

The findings of the PSTF stress that governments and other
stakeholders – professional associations, the private sector, and
development agencies – must create regulatory, fiscal, and social
policies that enable cost-effective and quality training, effective
retention, and equitable distribution of the health workforce. The
PSTF’s recommendations recognize the importance of building an
enabling environment that encourages and supports the needs of the
health workforce.

One way the PSTF recommends the expansion of health workforce
innovation is through a health workforce incubator. Such an incubator
would identify local health needs, match those needs to health
workforce innovators operating locally and globally, and conduct
analyses of project-specific enabling environments to prepare for
replication across borders. Furthermore, it would train local and
global innovators, as well as local private health leaders, in business
planning and general business management skills so that they can
prepare business plans for their existing or proposed private health
initiatives/organizations. Finally, the incubator would review health
workforce innovator business plans with funders (loans, investments,
and grants), and establish financial mechanisms to support initiation,
scaling, and replication.
Describing Health Workforce Innovators and Their Enabling Environments

The report identifies non-governmental organizations (NGOs), faith-based organizations (FBOs), not-for-profit, and for-profit organizations (i.e., the non-government, private sector) that are innovating to cope with the inadequate supply of healthcare workers in resource-poor settings. In most instances, these innovators did not set out to be workforce innovators. They needed to innovate in response to the scarcity of staff to meet their primary service or product mission. This report is a description of a select group of innovators who increased the supply of workers, made existing workers more efficient/effective, and/or reduced attrition of the health workforce. The PSTF report is not prescriptive: the innovators identified in the report are not the only innovators or the best-in-class. PSTF did not attempt to make comparisons between and among the health workforce innovators it identified. These are the innovators PSTF could identify and examine through primary and available secondary sources. In most instances, information regarding the methods and results are self-reported and limited. The report, therefore, is descriptive and limited by and to self-reported data.

The report describes linkages to factors in the social and business environment, a so-called “enabling environment,” that the workforce innovators report have both potentiated and constrained their reach and scope. It was beyond the PSTF’s resources and terms of reference to explain the causal linkages among the identified factors in the enabling environment and their influence upon the workforce innovators. However, it was clear even at this descriptive level of analysis that causality was bi-directional: health workforce innovators are influencing the enabling environment as it is influencing them. The report follows a line of inquiry which recognizes innovations wither or flourish, not solely on the merits of the product or service itself, but inter-dependently with the surrounding complementary organizations and environment, both political and social, that influence the innovators’ outcomes.
The Private Sector Response to the Human Resources for Health Crisis

The human resource crisis in the health sector

In 2006, the World Health Organization (WHO) estimated a global shortage of 4.3 million health workers. There are 57 countries with a critical shortage; 36 of these are in sub-Saharan Africa. The insufficient supply and uneven distribution of qualified health professionals severely thwarts efforts to achieve the health-related Millennium Development Goals (MDGs).

Analysis of the private health sector

National health systems must leverage resources, health professionals, and infrastructure from both the public and private health sectors in order to meet the health-related MDGs (Goals 4, 5 and 6). Even in single payer systems and social health insurance financing schemes, national health systems directly engage the private sector to employ health workers, construct clinics and hospitals, and provide all manner of health services. In developing countries, the public sector is typically expected to serve as the primary provider of health services and the primary steward of the health system. However, the public sector faces many constraints (e.g., growing and changing disease burdens, lack of health personnel, and scarce financing) and must rely on participation from the private sector to assist in health system capacity-building and improvement of health outcomes. For the public sector to leverage the private health sector, it must create an enabling environment that encourages private sector participation and holds the private sector accountable for its contribution.

This section describes the organization, benefits, and perceptions of the private health sector in low- and middle-income countries and discusses opportunities for public-private collaboration to more effectively achieve national health outcomes.

Composition and organization of the private health sector

The PSTF describes the private health sector as a sector that spans the entire health value chain, including provision, financing, manufacturing, distribution, and retail and includes the following stakeholders:

- For-profit organizations
- Social enterprises
- Not-for-profits, including non-governmental organizations (NGOs) and faith-based organizations (FBOs)
- Privately-motivated individuals and groups of individuals
- Informal sector entities, including traditional healers, birth attendants, and individual medicine sellers

In most countries, the private sector is organized by professional councils, unions, and trade associations. The lines dividing the various segments of the private sector are blurred because of the lack of standardized terminology and/or criteria for certain types of providers.

Private sector health service provision

In many countries, the public health sector focuses primarily on curative hospital care and provides basic public health services, such as prenatal care, delivery, and treatment for under-five diarrhea. Depending on the country and context, the private sector offers a range of services. Health services provided by the private sector “range from sophisticated inpatient facilities delivering advanced medical care of the highest international standard, through to the individual practices of doctors, nurses, and midwives, sometimes working in parallel with their public practice, and to unqualified peddlers of drugs from market stalls.”

In a private health sector assessment conducted by the Results for Development Initiative in Ghana, focus group respondents said that most people access private facilities for medicines and lab tests and go to public facilities for consultations or medical problems. In Kenya, data from the Ministry of Health shows that hospitals and dispensaries comprise the public sector, while clinics and nursing homes make up the majority of private sector facilities. In Mali, community-based health centers, which are considered private health providers, deliver the minimum health package of “curative, preventative, social and promotional services.” In most countries, the private sector also plays an important role in drug distribution and health professional education.

Private health sector expenditures

A number of studies have shown that in many low- and middle-income countries, a majority of the population seeks care from the private sector. For example, an International Finance Corporation (IFC) report states “about 60% of the US$16.7 billion spent on health in sub-Saharan Africa in 2005 was private, most of it out-of-pocket spending by individuals, and about half of this went to private providers.” Of the amount spent on private providers, 65% went to the for-profit sector, 15% to social enterprise, 10% to NGOs, and 10% to traditional healers. In Afghanistan and India, the private sector provides nearly 80% of healthcare. As economic growth accelerates and the overall demand for healthcare services increases in places such as sub-Saharan Africa and India, demand for private sector health services will continue to grow.

Segments of the population served by the private health sector

Many believe that private providers tend to serve primarily the high-income and educated population; however, studies consistently show that many low-income, rural populations

also access private providers. In South Asia, 80% of children in the lowest income quintile who have acute respiratory conditions and seek care use a private provider.\textsuperscript{18} In Ethiopia, Kenya, Nigeria, and Uganda, more than 40% of people in the lowest economic quintile access healthcare from private, for-profit providers. In Nigeria and Uganda, over 50% of the rural populations use for-profit private providers (based on self-reported usage). Faith-based and NGO services also serve large patient populations in poor, remote areas. For example, the Christian Health Association of Nigeria provides care for about 40% of the population and targets services to urban slums and poor rural areas.\textsuperscript{19} Inclusion of private sector services within insurance plans has the potential to further increase uptake of private health services in low-income populations.\textsuperscript{20} Patients seek services in the private sector, not always as a choice, but due to a lack of publicly provided alternatives. Remote location, lack of infrastructure, and inadequate governmental resources may all contribute to limited options: Selection of a private sector provider may be by default rather than by choice.

**Perceptions of public and private healthcare facilities**

Provider trust and perceptions of quality and cost are the primary factors that influence people’s choice of providers in low- and middle-income countries. For example, in Ghana, perceptions of quality of care, location, cost, and waiting time influenced facility choice among focus group respondents in one study. Women preferred private clinics because of perceived higher quality of care, sympathetic staff, and shorter waiting times. Men in two of the surveyed districts preferred public clinics because they felt that the higher cost of private care was not worth the difference in staff attitude and waiting time. Men and women in these focus groups also perceived that public facilities have lower costs (however, studies show that actual spending by users of public providers is not relatively lower).\textsuperscript{21}

In Kenya and Mali, studies show that patients choose private providers because of perceived convenience, flexible payment


options, availability and quality of drugs and medical staff, shorter lines, less transport time to reach the facility, and staff friendliness. In rural Cambodia, survey respondents perceived public providers to be ‘honest’ and ‘sincere,’ to provide clear explanations of the patient’s illness, and to have better skills and abilities than private providers. Private providers were considered more ‘comfortable and easy,’ ‘friendly,’ and ‘easy to make contact with.’

Engaging the private health sector

There are many reasons why the public sector should engage and strengthen the private health sector, which constitutes an important component of national health systems. Some of the most important reasons include:

1. Improved efficiency and impact: The private sector can contribute resources (human, financial, material), infrastructure, and expertise to scale-up existing public health sector efforts and minimize duplication. Government can leverage private sector resources to address challenges such as drug and medical supply shortages, rundown infrastructure and equipment, and insufficient health workers.

For example, the government can improve health service coverage and access to poor populations by contracting and leveraging private infrastructure in rural areas. The private sector can also build public sector capacity by providing financing, promoting competition among providers, and training newly appointment health managers in management and leadership skills. In addition, in countries such as Kenya and Mali, at least half of all physicians work in the private sector, and it is important to keep this large workforce engaged in the health system.

References:


2. **Increased sustainability and innovation:** A public-private partnership founded on business models with stable revenue streams, shared risk, and clear and achievable performance measures can improve the sustainability of healthcare service provision. The public sector can also leverage private sector approaches to find creative solutions to pharmaceutical and medical equipment supply chain and logistical challenges.\(^{28}\) In many countries, private schools train large numbers of health professionals, and proper accreditation and regulation of these schools is critical.

3. **Improved equity:** Private sector providers, especially NGOs and FBOs, are often the primary sources of care in remote and rural areas. (As discussed above, limited public options may also influence the selection of a private sector provider.) In addition, private organizations are often responsible for supplying a large percentage of drugs to patients in the public and private sectors. Other private sector entities are equipped to help the public sector create demand-side mechanisms (e.g., insurance models) that empower the poor to seek care. Thus, private sector engagement is critical to improving equity of care.

There are many ways in which the public sector can engage the private health sector. The PSPOne Policy Brief on the Vital Role of the Private Sector in Reproductive Health lists some of the most common ways the public and private sectors can work together to improve healthcare service and product delivery.\(^ {29}\) Specific areas of collaboration include:

- Contracting out
- Enforcing licensing and accreditation within the private sector
- Improving health sector regulation
- Creating mixed provider networks and franchises
- Developing public-private partnerships
- Investing in social marketing programs
- Providing training and continuous education for private providers

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• Implementing voucher schemes

• Creating insurance schemes

However, the specific country enabling environment will determine the exact role that private providers can play.

Recent private health sector assessments from Ghana, Kenya, and Mali, and the 2011 Healthy Partnerships report by the IFC/World Bank explore how governments can create optimal enabling environments to engage the private sector in improving health in Africa, and how the private sector can prepare for engagement with the public sector. Specific steps the public sector can take include:

1. Improve communication and trust between the sectors:
The lack of communication and trust between the public and private sectors is the first barrier that must be addressed. For example, in a survey in Kenya and Ghana, lack of reporting and insufficient information flow from private facilities to the government in areas such as service utilization, adverse health effects, quality standards reporting, financial reporting, drug utilization, and even consumer preferences resulted in an incomplete understanding of the private sector. Uneven quality among providers and unethical profit-oriented providers who take advantage of uninformed populations increases this mistrust. Open dialogue between the sectors and integration of the private sector into national planning processes, policy forums, and public sector training programs is therefore critical. The private health sector assessments recently undertaken in Kenya, Mali, and Ghana (commissioned by IFC Health in Africa Initiative and PSPOne/USAID-Kenya) provide examples of useful processes to encourage dialogue and understanding.

2. Organize the private sector: While there are many private providers who provide high-quality, affordable care to their communities, the private health sector is often unorganized and private facilities lack accreditation. To address this issue, the government should modify policies to facilitate and incentivize the private sector to become better organized and enforce accreditation. Government also should strengthen its own key government functions, including regulation.


information collection, and oversight, to serve as a steward of both the public and private health sectors.

3. **Clarify expectations and guidelines of public-private engagement:** Expectations, roles, and guidelines of stakeholders in public-private partnerships (PPPs) are often unclear. National policies on development and implementation of PPPs should be developed, and frameworks and guidelines for collaboration should be established. In addition, the public sector should strengthen its capacity to work with the private sector by improving negotiation and supervisory skills of public sector employees. The private health sector assessments conducted in Kenya, Mali, and Ghana all recommend development of a national PPP framework, policy, or unit to facilitate and structure public-private engagement.32,33,34

4. **Address political and financial barriers:** Regulatory barriers are high in most countries and access to financing for private health providers is limited. The government should modify policies and legislation to streamline bureaucratic processes and provide opportunities for task shifting to help the private sector participate more fully in health provision. Policies that reduce tariffs, free capital for use by the private health sector, empower private providers with the capacity to prepare financial statements and business plans, and increase health sector lending are critical steps to improve access to financing.35,36

The private health sector must also prepare for engagement with the public sector. The sector must become a “credible, capable, and representative” partner that is willing to engage with the government on healthcare issues and implement changes to improve quality, cost, and access to services.37

In addition, both parties must be wary of the risks inherent in public-private engagement, such as conflicts of interest,

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negative health impact within a community, and favoritism among providers.

Donors should also encourage PPPs by supporting public-private engagement, including private sector in-country support programs and aligning donor-funded programs with priorities coming out of country-level public-private dialogue.

Examples of successful public-private engagement

The IFC/World Bank Healthy Partnerships report states that out of 45 reviewed countries, 39 have a policy regarding the private sector, but only 12 of these countries implement the policy. While more work remains to develop enabling environments in which the private health sector can flourish, notable examples of government policies to facilitate public-private engagement exist in the following areas:

Policy and dialogue: In Ghana, engagement between the government and the private health sector increased when the government used a new dialogue forum to re-energize the existing national private health sector policy. As a result, the private sector created an umbrella organization of private providers. In Kenya, the government is leading two initiatives to create a PPP framework and has created a new PPP unit. However, both entities are in the initial stages of development and the PPP framework has been led primarily by the NGO sector.

Information exchange: Burkina Faso and Rwanda are leaders in this area. Governments in these two countries “keep the private sector well informed and include private providers in existing public health sector information channels, such as for health management information systems data.”

Regulation: South Africa has a reputation for having one of the world’s highest performing private health sectors. One of the reasons for this success is its highly regulated environment and strict enforcement. A majority of private sector funding comes

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through insurance, which provides a strong incentive for the private sector to abide by national rules and regulations.\textsuperscript{42}

**Pharmaceuticals and medical products distribution:** In Mali, private wholesalers of drugs and medical products are allowed to supply public hospitals with specialty drugs and provide public providers with drugs and supplies in the event of a stock-out.\textsuperscript{43}

**Financing:** Approximately 30\% of governments in sub-Saharan Africa contract with self-financing private providers for health services, and half of those governments also offer financial incentives to private providers.\textsuperscript{44} In Kenya, for example, the Ministry of health is creating a new health financing strategy that combines taxes, social insurance, and private insurance to improve access to health services.\textsuperscript{45}


\textsuperscript{44} IFC. 2011. Healthy Partnerships: How Governments Can Engage the Private Sector to Improve Health in Africa. IFC World Bank Group: p. xi.

The Global Health Workforce Alliance Private Sector Task Force

GHWA also recognizes the benefit of engaging the private health workforce. The Kampala Declaration and Agenda for Global Action (KD-AGA) states: “Ministries of Health, cooperating with other stakeholders, will take advantage of public-private partnerships and pursue innovations in the area of health workforce development by working to understand the private sector health workforce better and exploring ways to leverage this workforce to contribute to the goals and objectives of strategic plans of countries.”

The PSTF was formed under the aegis of the GHWA to understand how the private sector is responding to the HRH crisis; identify practical and actionable insights to accelerate successful private sector responses; and engage, within significant resource constraints, with a small subset of private sector innovators to support their activities and increase the PSTF’s insights into successful private health sector responses.

The PSTF defines the private health sector as any non-governmental entity, including not-for-profit NGOs, for-profit companies, and FBOs providing healthcare products and services. In response to the health worker shortage, the operational mandate for these private sector organizations and enterprises has been to innovate in order to avoid under-performing or even perishing. Three general questions informed the work of the PSTF:

- How is the private health sector innovating in response to the HRH crisis?
- What is enabling health workforce innovation in the private health sector?
- How can those innovative responses be accelerated?

To examine these questions, the PSTF reviewed 31 initiatives in

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low-income countries that increased the supply, improved the effectiveness, and/or slowed attrition and misdistribution of health workers. The PSTF also contributed to the scaling and cross-border implementation of three private health sector initiatives in Kenya, Mali, and Zambia.

- In Kenya, the PSTF pursued an action research approach and provided analytical support to the African Medical Research Foundation (AMREF) to (1) help AMREF identify possible barriers to the planned expansion of its Nurses’ eLearning Upgrade Programme from Kenya to Uganda; and (2) use this analytical assistance to provide data regarding project-specific enabling environment factors that are critical to the success of cross-border movement of private sector initiatives.

- In Mali, the PSTF and its local partners identified the lack of baseline data as an important impediment to the successful scale-up of the Mali Rural Physicians Initiative, a program that trains, places, and supports doctors in rural areas of the country. The PSTF partnered with the Faculty of Medicine, Pharmacy, and Dental Medicine (FMPOS) at the National University of Mali, Santé Sud-Mali, the Association of Rural Physicians (AMC), and Witwatersrand University in South Africa to conduct a survey in the Sikasso region of the country to collect baseline data on the socioeconomic status of the population and assess the access, quality, and cost of services provided by rural doctors in the region. The purpose of the survey was to provide baseline data for a future impact evaluation and identify local needs that will inform the scale-up of the program in the Sikasso region.

- In Zambia, the PSTF identified local affiliates who are seeking to replicate Tanzania’s successful Accredited Drug Dispensing Outlets (ADDO) rural pharmacy program period (ADDO is a PPP that trains health workers and licenses small private pharmaceutical retail outlets in rural areas). PSTF-supported partners provided assistance to the informal team in Zambia to seek funding for the project, develop training materials, and pursue an action research model that builds on efforts with AMREF Kenya to understand the project-specific enabling environment characteristics critical to the successful importation of ADDO onto to Zambia.
Based on these experiences, the PSTF identified a set of enabling environment factors of private sector HRH initiatives and proposed actions to facilitate engagement of these private sector initiatives in a way that enhances the quality and management of private sector services.
Private Sector Health Workforce Innovators

The health worker crisis is most pronounced where governmental investment in health is low (less than $30 per capita) and the disease burden resulting from poverty is high.\textsuperscript{47} These factors increase infant mortality and increase the gaps between current population health status and MDGs 4, 5, 6. Additional factors such as maldistribution and migration, poor work environments, and a weak knowledge base are contributing to the health worker shortage.

McKinsey has suggested that the health workforce supply can be accelerated by creating new health worker roles, using training to increase the productivity of existing health workers, and introducing new medical education strategies and criteria.\textsuperscript{48,49} Published research identifies innovation in low- and middle-income countries where new care delivery models are increasing health worker productivity.\textsuperscript{50} The KD-AGA highlights the need to address challenges across the entire continuum of planning, training, deployment, and retention of the health workforce.

Guided by existing research and policy recommendations, the PSTF identified a subset of private health sector innovators that have developed approaches to increase the supply of health workers, improve the efficiency of existing health workers, and/or increase retention. These innovators are “health workforce innovators.”\textsuperscript{51}

\begin{thebibliography}{99}
\bibitem{pstrf2009private} The PSTF’s segmentation of the private health sector was informed by a monograph titled, The Role of the Private Sector in Health Systems: Challenges and Opportunities (2009), by the Rockefeller Foundation and Results for Development. The authors of the monograph suggest the private health sector in resource-poor settings can be divided into five foci: purchasing/contracting, accreditation/regulation, financing/insurance, innovative service models, and innovative product supply models. Following discussions with the authors, the PSTF chose to limit its sample to the first three sub-segments within this taxonomy of the private sector to supplement the research taking place for the existing study. The health workforce innovators identified by the PSTF and included in the list below were identified through literature searches and Internet research. The identified set of innovators is not exhaustive, but it is robust enough to demonstrate that health workforce innovation is occurring globally in resource-poor settings where the health worker shortage is most acute. Many of the innovators reported they were not intentionally seeking to remedy the health care workforce shortage but were experimenting with approaches that directly or indirectly cope with its impact, which is why we labeled them as innovative.
\end{thebibliography}
Health workforce innovators are increasing the supply of health workers using strategies such as:

- Training non-qualified staff and community health workers for medical and non-medical tasks (in some instances, abrogating current training or qualification requirements while advocating for regulatory changes)

- Increasing the capacity of health worker training institutions in low-income countries

- Preparing drug shop franchisees to diagnose and sell appropriate medicines for a limited set of common, high burden diseases

- Recruiting nurses and related health workers in developing countries for training in developed host countries and facilitating their return

- Accelerating training and certification through the use of technology (e.g., distance learning)

Table 1 highlights private sector organizations or firms that are demonstrating innovative health workforce supply approaches.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Location</th>
<th>Health workforce innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Technology Business Incubator</td>
<td>Tamil Nadu, India</td>
<td>First Care Health Enterprise trains, credentials, equips, and supports rural medical practitioners to deliver simple primary health interventions</td>
</tr>
<tr>
<td>Medical Knowledge Institute (MKI)</td>
<td>14 sub-Saharan African countries</td>
<td>Empowers local community members through Health Information Centers that offer training courses in different life skills and provide contacts with relevant support/information</td>
</tr>
<tr>
<td>Aga Khan School of Nursing</td>
<td>Pakistan, Uganda</td>
<td>Improves the quality of patient care by encouraging practicing nurses to enhance their expertise through higher education</td>
</tr>
<tr>
<td>AMREF Nurses’ eLearning Upgrade Programme</td>
<td>Kenya</td>
<td>Partnered with private sector firms to create the Nurses’ eLearning Upgrade Programme to upgrade the skills of certificate nurses to RN diploma status</td>
</tr>
<tr>
<td>Health Careers of America</td>
<td>Ghana, Liberia, Uganda, Burundi, Rwanda, Kenya</td>
<td>Supports universities in developing countries with the funding, curriculum, technology, and trainers needed to develop healthcare workers</td>
</tr>
<tr>
<td>Touch Foundation</td>
<td>Tanzania</td>
<td>Funds a public medical school, sponsors students to increase the number of students in medical, specialist, and paramedical programs</td>
</tr>
<tr>
<td>Healthstore Foundation</td>
<td>Kenya, Rwanda</td>
<td>Targets nurses and Community Health Workers as franchise owners to address a short list of diseases in child and family wellness clinics</td>
</tr>
</tbody>
</table>

Table 1: Organizations increasing the supply of health workers

52 A description of these programs is found in Appendix B and a longer description is available upon request.
Health workforce innovators are increasing the efficiency and effectiveness of the current health workforce using strategies such as:

- Developing cadres of staff with specialized training in monitoring and evaluation of higher standards of care
- Building capacity of local institutions through skills upgrading
- Providing specialized training for health workers serving in conflict zones and/or rural regions
- Developing insurance schemes targeting poor patients
- Creating provider practice associations as part of an insurance scheme to serve the increased demand of patients

Table 2 highlights private sector organizations or firms that are demonstrating innovative health workforce efficiency approaches.

Table 2: Organizations increasing the efficiency of health workers

<table>
<thead>
<tr>
<th>Organization</th>
<th>Location</th>
<th>Health workforce innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tulane</td>
<td>Ethiopia</td>
<td>Created a monitoring and evaluation curriculum for the Ethiopian Ministry of Health and provides the country with a core of health workers trained to assess the effectiveness of health programs</td>
</tr>
<tr>
<td>FriendlyCare</td>
<td>Philippines</td>
<td>Network of clinics that pays its nurses at a higher rate than other clinics and provides a fee-for-service scheme for doctors within the network; supports partner universities by providing on-the-job training for nursing students, and training of graduated midwives in business and other clinical skills</td>
</tr>
<tr>
<td>Hygeia</td>
<td>Nigeria</td>
<td>Partnered with PharmAccess and the Dutch Health Insurance Fund to develop a community health insurance scheme offering insurance premiums for low-income communities</td>
</tr>
<tr>
<td>Janani</td>
<td>India</td>
<td>Implements a large service delivery program of quality health and reproductive health services and products by training rural health providers and establishing franchised medical clinics</td>
</tr>
<tr>
<td>Karuna Trust</td>
<td>India</td>
<td>Partnered with the government of India, the government of Karnataka, the UNDP, and the National Insurance Company to deliver community health insurance at an affordable cost</td>
</tr>
<tr>
<td>Management</td>
<td>Bolivia</td>
<td>Updated the program and financial information systems; designed new human resource, administrative, and financial management systems; and improved overall organizational financial performance, which included a change from a salary system to a fee-driven system that ties payments to performance</td>
</tr>
</tbody>
</table>

A description of these programs is found in Appendix B and a longer description is available upon request.
<table>
<thead>
<tr>
<th>Organization</th>
<th>Location</th>
<th>Health workforce innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV/AIDS Coordination, Human Resources, and Health Systems</td>
<td>Zambia</td>
<td>Reviewed 72 district health action plans by analyzing human resource and training needs, introducing a health workers retention scheme, and developing a mechanism to accredit antiretroviral therapy providers</td>
</tr>
<tr>
<td>The AIDS Support Organization (TASO)</td>
<td>Uganda</td>
<td>Provides care and treatment to people living with HIV/AIDS, trains clinic healthcare workers, and educates the broader community</td>
</tr>
<tr>
<td>Community Health Insurance Plan (CBHI)</td>
<td>Rwanda</td>
<td>Health insurance organizations based on a contract between the community and healthcare providers; create legal mechanisms to regulate contractual relations; government made participation in the private, community-based schemes mandatory</td>
</tr>
<tr>
<td>The Council for Health Service Accreditation of Southern Africa (COHSASA)</td>
<td>Southern Africa</td>
<td>Assists a range of healthcare facilities (public and private) to meet and maintain quality standards by enabling healthcare professionals to measure themselves against standards and monitor improvements using quality improvement methods, internationally accredited standards, and a web-based information system</td>
</tr>
<tr>
<td>Bidan Delima Quality Recognition of Private-Sector Midwives</td>
<td>Indonesia</td>
<td>Network of high-quality midwives that have passed rigorous evaluations of their professional midwifery practices, including clinical and counseling practices for safe delivery, family planning, and pre- and post-natal care</td>
</tr>
<tr>
<td>RAISE Service Delivery Training Centers</td>
<td>Nairobi and Burkina Faso</td>
<td>Developed a train-the-trainers course and a clinical supervision course; when health workers return home from the training course, RAISE provides monitoring and support in the health worker’s country of origin through partner organizations</td>
</tr>
</tbody>
</table>

Health workforce innovators are increasing retention using strategies such as:

- Organizing health workers (e.g., midwives) into private practice groups
- Strengthening health system programs specifically aimed at increasing retention
- Identifying health workforce needs, developing HRH plans, and acting as a broker and advocate for health workers in remote regions
- Providing in-service training to improve skills and increase motivation for health workers at risk of leaving the profession or relocating
• Providing in-service training to improve working conditions, management practices, and skill sets

• Utilizing performance-based contracting and training

• Creating consortia of FBOs to increase efficiencies and promote tolerance and open communication among multiple faith traditions

Table 3 highlights private sector organizations or firms that are demonstrating innovative health workforce retention approaches.

**Table 3: Organizations increasing retention of health workers**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Location</th>
<th>Health workforce innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda Private Midwives Association</td>
<td>Uganda</td>
<td>Supports and trains private sector midwives in family planning, reproductive health, testing, counseling, and basic women’s health; members must work in the public sector for at least five years before qualifying to own a private clinic</td>
</tr>
<tr>
<td>JHPIEGO</td>
<td>Ethiopia</td>
<td>Implements training in PMTCT, infection prevention, counseling and testing for HIV, and provider-initiated counseling and testing; supports the Ministry of Health in pilot-testing the use of non-health professionals as counselors</td>
</tr>
<tr>
<td>JTA International</td>
<td>Australia, South East Asia, Papua New Guinea</td>
<td>Specializes in the provision and implementation of health services to governments, industry, and global partnerships in remote and challenging environments</td>
</tr>
<tr>
<td>BD Global Health Department</td>
<td>14 sub-Saharan Africa countries</td>
<td>Strengthens lab systems, educates health workers on medical devices, and provides training on CD4 monitoring equipment; has feedback mechanisms to measure working conditions, health conditions, and services that impact employee morale and migration out of country and out of profession</td>
</tr>
<tr>
<td>Performance Based Financing</td>
<td>Rwanda</td>
<td>Provides incentives to healthcare facilities and their employees to improve quality of care in rural areas</td>
</tr>
<tr>
<td>SDSH (Santé pour le Développement)</td>
<td>Haiti</td>
<td>Uses partnerships to focus on supporting decentralization, strengthening public-sector capacity in service delivery, and supporting local NGO service delivery</td>
</tr>
</tbody>
</table>

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54 A description of these programs is found in Appendix B and a longer description is available upon request.
<table>
<thead>
<tr>
<th>Organization</th>
<th>Location</th>
<th>Health workforce innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inter-Religious Council of Uganda</td>
<td>Uganda</td>
<td>Provides sub-grants to NGOs and serves to provide guidance and support in project planning, monitoring project progress, and providing accountability to donor agencies</td>
</tr>
<tr>
<td>Abt Associates-led Private Sector Partnerships (PSP-One)</td>
<td>Ethiopia</td>
<td>Works with Ethiopian private-sector organizations to increase access to HIV/AIDS and tuberculosis prevention, care, and support services; provides clinical training and clinical mentoring as well as supportive supervision that will improve the effectiveness of healthcare workers</td>
</tr>
<tr>
<td>Santé Sud-Mali Rural Physicians Initiative</td>
<td>Mali</td>
<td>Places young physicians in remote rural areas; ensures they receive additional medical training in community health, and incorporates them into a continuing education network; includes supervision and mentoring services for the doctors</td>
</tr>
</tbody>
</table>
Enabling Environments of Health Workforce Innovators

The HRH crisis is most acute in emerging markets where the institutions needed to support the private health sector are often weak. The foundation required includes both market institutions and business capabilities. Market-enabling institutions create and define the rules of the game, while business capabilities fuel the growth of private enterprises that take root and grow in the business environment created by these structures and capabilities. The KD-AGA stresses that governments have a responsibility to create many of the regulatory, fiscal, and social policies that enable cost-effective and quality training, effective retention, and equitable distribution of the health workforce.

For the private health sector, we use the term “enabling environment” to describe a milieu of health and business institutions, capabilities, capital markets, legal systems, and labor markets that allow health-related businesses and organizations to form and grow. Enabling environments have been identified as a useful construct to understand the growth of specific business types, the growth of training and education, and the expansion of corporate social responsibility actions in national contexts.

Business and legal institutions to support financing and contract enforcement and systems to allow for enterprise failure have been identified as threshold requirements for a market to function. Discussion of these threshold requirements is beyond the scope of this report; the PSTF assumes the business threshold has been met because private health sector innovation is occurring in the organizations identified in this report. Yet the enabling environment of the private health sector also includes government, civil society, and other dimensions beyond the institutional and capabilities for business growth alone. We describe in this report a private health

sector enabling environment where market-oriented capabilities and institutions are necessary; additional health-specific dimensions are also necessary for health workforce innovation.

The relationship between private health sector firms or organizations and the institutional or enabling environment in which they operate is co-dependent. Causality between the innovator and the enabling environment is bi-directional. The innovators often operate as a disruptive influence on the enabling environment by introducing change and stimulating the evolution of new models of healthcare business or healthcare delivery. As much as the enabling environment potentiates and constrains these innovators, the innovators also act upon that environment, causing it to evolve, although at an uneven pace and frequently in conflict.

This co-dependence is a paradox where private health sector organizations and firms cannot function without an enabling environment to support them and the enabling environment needs the activity of private sector firms and organizations to introduce change. Drawing from observations of the health workforce innovators (based on findings from surveys and interviews of health workforce innovators and in-depth case studies of programs in Zambia, Kenya, and Mali), published and gray literature, and country-specific assessments of private health sectors, a set of enabling environment factors has emerged that are highly relevant to the emergence, scaling, and expansion of private health firms and organizations. The PSTF found a pattern: Health workforce innovators rarely reach full scale or replicate across national borders. Two primary questions arose:

1. What factors in the private health-related enabling environment are constraining these health workforce innovations from reaching scale or replicating across national borders?

2. How is the emergence of these innovators affecting the enabling environments in which they operate?

The PSTF identified nine enabling environment factors as most salient to the emergence, scaling, and replication of health workforce innovation: Government engagement, political will, health worker advocacy organizations, local ownership, civil society, business and capital, technology, and health workforce innovators.

62 See Appendix C for country case studies.
1. Government engagement

Government engagement was frequently found to be explicitly and often directly linked to health workforce innovation. In healthcare systems that are centrally organized and publicly funded, government is the payer and provider, responsible for driving economic growth, regulating market forces, and providing basic health services. Although the level of engagement varies significantly across health workforce innovators, many rely heavily on government engagement and/or direct sponsorship.

Government engagement took several forms: (A) government as an enactor, intervening to create reforms that influence the macro-economic factors required for the initiation of a health workforce innovation and its continuing performance, (B) government as a regulator, ensuring checks and balances for a level playing field among competing private sector firms to ensure quality of services and competition, (C) government as an active partner through PPPs, and (D) government as a provider, providing the healthcare infrastructure in which innovators operate.

**Government as enactor:** Reforms in labor law, the judiciary, intellectual property, and physical property rights, among others, address macro-economic factors such as the business environment, employment, and poverty. This creates a sustainable social infrastructure, which is required for health workforce innovators to exist and flourish. Many sub-Saharan African nations are implementing economic reforms that will increase economic activity and aid in job creation.\(^\text{64}\)

For example, the AMREF Nurses’ eLearning Upgrade Programme in Kenya is enabled by government because participants were able to keep their jobs while enhancing their skills through program participation.

**Government as regulator:** Health workforce innovators are subject to government regulation of their programs and their employees who deliver healthcare products and services. Regulations, however, can also hamper market-based solutions and can impose increased costs of compliance. These costs may include regulatory costs, including those associated with employment, contract enforcement, property registration, and taxes.

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More frequently, the low-income economies in which many of the innovators operate have less capacity to develop or enforce regulations. A lack of regulatory capacity promotes innovation while elevating concerns about quality of services and fairness of competition.

As a result of innovation in the context of under-regulation, two alternatives have emerged:

**Self-regulation** through self-imposed standards occurs when innovators voluntarily adopt and observe specific practices and make their internal assessments public.

**Co-regulation** often results from negotiations between the government and health workforce innovators. As a result of these negotiations, regulatory provisions with clearly defined endpoints are established by the government and implemented by the private entities. Monitoring compliance may remain a public responsibility or contracted to a third party-NGO. Co-regulation allows greater transparency and public scrutiny. In many low-income countries, the private health sector operates in a social context of mistrust where government officials and the public may fear profit motivations that incentivize private sector providers to directly or inadvertently engage in supplier induced demand and offer poor quality services.

**Government as active partner:** PPPs are an important form of government engagement. They offer a unique way for resource-constrained governments in developing countries to simultaneously improve health infrastructure and healthcare service provision while creating a platform for addressing other system-wide inefficiencies. Health workforce innovators have frequently been engaged as private partners in PPIPs (public private investment partnerships are a specific form of PPPs) and PPPs.  

For example, PPPs have evolved to raise capital for hospital infrastructure or contract for health service delivery. These long-term partnerships leverage private sector expertise in service

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to address public sector health goals. In some instances, establishing PPPs requires statutory changes, and, for some specific reforms (e.g., new health financing mechanisms), legislation to allow both the PPP and the specific reform.

**Government as infrastructure provider:** Factors including physical infrastructure (e.g., roads, buildings, electricity, transportation), technological infrastructure (e.g., telecom, IT, internet), and political stability (e.g., absence of civil unrest, safety of health worker/volunteers/staff) are important considerations in health workforce enabling environments. The direct linkage between infrastructure deficits, population health outcomes, and the resulting impediments to the expansion of health workforce innovation is often unrecognized or not explicitly linked.

Health workforce innovators report an inability to pursue programs to grow the health workforce into remote, rural locations due to the lack of infrastructure. Infrastructure deficits create significant barriers to all industries, but particularly for health workforce innovators. Lack of infrastructure is not just an economic issue, it is a critical factor in overcoming misdistribution of health workers and successfully expanding the health workforce into rural regions.

2. **Political will**

Health workforce innovations can be directly or indirectly linked to government reforms and policies. As a result, they require the continuing exercise of political will. Political will is the determination of influential leaders, both elected and in civil society, to sustain budgets and prioritize reforms or existing programs. Simply the initiation of programs or laws does not portend continuation. Sustaining political will and support is important to health workforce innovation, particularly with regards to reaching scale. Box A describes the role of political will in instituting a maternal health program in the Indian state of Orissa.

3. **Health worker advocacy organizations**

Health workers such as physicians, nurses, and midwives are often organized into professional associations and advocacy groups. In some instances, they function as a trade union and in other locales, they have statutory standing whereby they certify professionals. These groups have formal regulatory standing in many countries or work closely with governments to assure competency and training
standards for health workers. These organizations frequently advocate for policies regarding quality of care, safety for patients and health workers, health worker training, preparation and certification, pay, and monitoring. However, the ability to enforce these standards varies widely and is often weak.66

Health workers with non-standard preparation or serving in unrecognized and non-traditional roles can exacerbate the general distrust that often exists between the private health sector, civil society, and government. Yet these innovations can influence a change toward more efficient and effective preparation of health workers and allow new roles to emerge. Box B provides an example of how the Medical Council of India introduced a new degree for rural physicians.

A. Quality of care and safety: Poor supervision, inappropriate curriculum, and weak regulatory mechanisms directly impact the quality of care. Health workforce innovators are often engaged in care delivery that is formally regulated by standards of care and safety protocols. Innovators sometimes challenge those standards and advocate for changes that aim to maintain or raise quality while improving efficiency (in the view of the innovator). Here again, innovative change is occurring due to a lack of enforcement capacity. However, garnering additional resources and reaching scale may require the formation of revised standards, which can be a lengthy process. Quality and safety in healthcare can be difficult to measure in support of revised standards.

B. Evolving health worker roles: Doctors and pharmacists have traditionally objected to the delegation of their tasks to what they perceive as inadequately trained health workers. Task shifting, which is one manifestation of this role evolution, has been the subject of considerable debate and controversy.67 Nurses have resisted taking on doctors’ roles without commensurate salary increases and ad-hoc task shifting can result in redundancies in jobs and a lack of teamwork.

Health workforce innovators are experimenting with alternative roles. Just as in quality and safety, the innovation occurs, in part, due to a lack of enforcement capability. Scarcity of

66 For the purposes of this report, we do not differentiate between trade unions, informal advocacy associations, and health worker organizations with statutory certification responsibilities. While these types of organizations differ markedly in their power, organizational structure, and location within/outside of government, their relevance to health workforce innovators is broadly similar.

67 WHO has established guidelines to support dialogue and policy formation as tasks and roles evolve especially in resource-poor settings.)
workers is the primary cause of emerging new roles. Sustaining and reaching scale requires that the innovator engage the formal system that sanctions roles and seek recognition and certification. In most locales, salary (especially in government settings) is linked directly to the level of responsibility and workload associated with specific tasks. Evolving roles, such as task shifting, are interconnected with accreditation, training, and payment.

C. Motivation, retention, and performance: Poor salaries have been a key factor behind job dissatisfaction and the migration of nurses from sub-Saharan Africa to Western countries. Insufficient remuneration also has a direct impact on employee morale, which adversely impacts quality of patient care and retention. Some health workforce innovations include interventions to improve motivation and increase retention through monetary incentives. “Top-ups” or other financial incentives can exacerbate competition between health employers. Health workers may follow financial incentive programs, which can create disruptions and sudden changes in the health labor markets.

D. Lack of data: There are limited data and studies to show if and how the emergence of new or revised health worker roles and reformed education and preparation influences quality, cost, and access, or, more broadly, population health outcomes. Health workforce innovators rarely have the resources to build an evidence base for the reforms for which they advocate. Health worker advocacy organizations are similarly under-resourced and thus often cannot build the evidence base to evaluate significant changes in health worker roles and preparation.
Box A

Political Will: Government-sponsored maternal transport in Orissa, India

In 2007, the Indian state of Orissa had a maternal mortality rate of 303 per 100,000 and an infant mortality rate of 69 per 1,000. In the Orissa Health Sector Plan, the Government of Orissa noted that low rates of institutional delivery contributed to these higher than average rates. In 2006, 16 of the state’s 30 districts had institutional delivery rates under 50%. Villages without motorable roads had particularly high rates of maternal and infant death, but even villages close to health facilities had low rates of institutional delivery. The state government had previously set goals of increasing institutional deliveries, but had neither developed a plan for doing so nor committed resources to the cause. As a result of government inaction, maternal and infant health continued to decline throughout the late 2000s.

In 2009, the Orissa Department of Health & Family Welfare (DHWF) developed a plan to increase institutional deliveries to 80% and devoted resources and funds to achieving this goal. The plan created the Janani Express, a transportation initiative that provided 24-hour a day free transport to pregnant women and sick infants. The government contracted the transportation services to the private sector through competitive bidding. Janani Express was piloted to 63 health institutions in 22 districts. After one year, the DHFW publicly expressed its continued commitment to the initiative and commissioned a comprehensive review of the pilot. This review of operations, finances, and monitoring systems highlighted ways in which the government could further increase institutional deliveries. It found, for instance, that transportation was still unavailable for women who lived far from a health institution and that systems were not in place to track the number of transport requests compared to the number of clients actually transported.

The evaluation led to a redesign of the transportation system, making it more accessible and increasing its efficiency and effectiveness. The redesign included an innovative system in which pregnant women were given a voucher that entitled them to transportation without any out-of-pocket expenditure. Unlike in the pilot, in which transportation was only provided by Janani Express operators, the voucher could be used for transport by a Janani Express operator or by a contracted private vehicle operator, or to get any other form of private transportation. This voucher system gave women choice, guaranteed providers that they would be paid, and increased employment in rural villages. The voucher scheme alone was expected to increase the institutional delivery rate by 15%. To confirm its commitment to the transport program, the DHWF appointed and funded a Voucher Management Agency (VMA). The VMA was tasked with reviewing the availability of transport, issuing vouchers, publicizing the system, and continually reviewing and refining processes and procedures.

In June 2011, the DHWF announced that the success of the Janani Express program in promoting institutional deliveries had prompted the government to deploy more vehicles per block. In districts with the program, institutional deliveries were estimated at 81%.

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1 Government of Orissa, Department of Health and Family Welfare. 2010. Terms of reference for the appointment of a voucher management agency to manage a transport voucher scheme to allow women quick and easy access to appropriate health facilities for safe delivery and treatment of illness during the post-natal period. Orissa Technical Management and Support Team.


Box B

Professional Health Worker Advocacy Groups: Introducing a new physician training program in India

Physician shortages in rural areas impede the achievement of universal health care in India. As indicated in Figure B, physician density is four times greater in urban areas than rural areas. The country’s medical degree policies partially explain this trend. Proponents of medical education reform, including the Medical Council of India (MCI), determined that the five-year Bachelor of Medicine and Bachelor of Surgery (MBBS) program was creating graduates with professional and personal expectations that were incompatible with serving in rural areas. However, regulatory authorities were unwilling to consider alternate training schemes as such schemes were frowned upon by some prominent physicians and were believed to provide subpar care to rural patients. Although the medical fraternity voiced opposition to the rural degree, MCI used its position as the country’s statutorily mandated professional association to advocate for this innovation in medical education.

Unable to gain regulatory approval of a shorter MBBS degree program, MCI defied regulatory authorities and began offering a shorter, four-year training program. Only after MCI was already placing graduates of this program in rural areas did the regulatory authorities concede and recognize the new degree.

The rural MBBS program is one year shorter in duration because it excludes content (e.g., advanced surgical techniques) irrelevant for rural primary care practitioners. The focus on a particular care setting ensures that clinicians will be fully competent in the skills necessary for rural practice. Detractors argue that physicians trained for only four years will be of lower quality than traditionally trained physicians, but little evidence indicates how long it takes to produce a competent doctor. The MCI’s rural MBBS program has been lauded for its innovation, particularly in light of the enabling environment constraints it initially faced.

Figure B: The physician density in Punjab and Delhi is much higher than in India’s rural states.


4. Local ownership and management

Many health workforce innovations include local ownership and management as a means to build local buy-in and increase local capacity. Innovations are more likely to become partially or fully self-sustaining when there is local ownership and management through franchise or other mechanisms. Local ownership and management, which creates local engagement and commitment, is frequently linked to new health worker roles. The franchisees, for example, may be trained in tasks that have previously been the primary or exclusive purview of doctors, nurses, and other certified health workers. Local ownership and management places a significant emphasis on quality but can exacerbate suspicions that profit motivations supersede commitments to quality. Where there is a desire for health workforce innovation to become self-sustaining (partially or fully), for-profit business models may be most effective. Box C provides one example of a franchising model.

5. Civil society

Health workforce innovators must fit their approaches into the social and cultural environment of the country in which they operate. In some cases, acceptance is a summative effect of other enabling environment components. When governments and local ownership are in place, for example, civil society is engaged and social acceptance can result. Social marketing, tailored services for the poor, and franchising, for example, can only succeed in contexts where these approaches are culturally appropriate or adapted and engage civil society. Before innovations can scale or replicate across national borders, they often face specific socio-cultural barriers that must be considered. Box D describes how public-private dialogue (PPD) can be used to engage civil society.

6. Business and capital

McCraw\(^{68}\) has identified three market factors necessary for institutional development of business: financial systems, legal systems for enforcing contracts, and constructs to allow failure while allowing investors and entrepreneurs to continue or recover in spite of failure. We assume that these business-specific factors must exist where health workforce innovation occurs, especially when such innovators are organized as for-profit. It was beyond the scope of the PSTF’s work to quantify the threshold required for any innovation to occur or to develop a typology of private health enabling environments. Given the fact that health

workforce innovation is occurring, we simply assume that the critical threshold has been met. The enabling environment factors of interest are those that constrain a health workforce innovator from growth and expansion and where the innovator has, in turn, been able to influence the enabling environment. We do not analyze McCraw's business critical factors, but we assume they are an operational requirement for the health innovator's enabling environment.

Capital is a critical enabling factor for the initiation, scaling, and replication of health workforce innovation. Sources of capital include local or international investment or loans, government or foundation aid, and private donations (corporate or individual). Many health workforce innovators have secured initial funds to begin their operations in the short run, but most report difficulty in securing adequate funding for full scaling and expansion. Capital was available but constrained due to two primary factors:

**A. Unsustainable funding from foundations, bi-lateral governments, NGOs, and lenders:** Health workforce innovators are often initially funded from a variety of non-banking sources. Governments, foundations, and NGOs have been focused on health system strengthening, disease-focused programs, economic development, and specific improvement programs (e.g., drug supply chain, improving quality). Initial funding has been provided as pilot programs. However, funding for continuation or expansion of the programs, even when pilot phases have been successful, has been inconsistent.

**B. Local lender risk assessments of the private health sector:** Local lenders have traditionally rated the health sector as higher risk than other business sectors. The cost of capital is therefore higher for health-related innovations. Programs such as USAID's Banking on Health have demonstrated that active engagement with banks and health innovators can have a positive impact on reducing the cost of capital and improving the credit worthiness of local innovators. USAID's analysis of the Kenyan private health sector and the rationale behind the Banking on Health initiative are representative of a private health sector trend applicable to health workforce innovators: “very few banks have incorporated a small and medium enterprises (SME) strategy into their methodology for credit assessment or management of loans.”

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7. Technology

Many health workforce innovators rely on technology to expand their reach, lower costs, and implement new models of healthcare delivery. From this report’s sample of workforce innovators, the AMREF eLearning project and TASO-Uganda initiative demonstrate the dependency of the innovator on a technology infrastructure that provides digital voice and data communication. As technology advances and more patients and consumers have digital communication devices, more applications for exchanging health-related information become possible. Technology-based innovations rely upon an infrastructure with hardware, software, and human components.

Technology innovation relies on a local infrastructure with relative stability in pricing and reliability. Some health innovations must rely upon hardware and software that sustain communications when time-sensitive health events are occurring. Technology infrastructure can be established and maintained by governments, privately owned, or in public-private structures. Capital is required to build the infrastructure and is typically structured through financing instruments over multi-year time periods. Stability in the civil and finance sectors is required for financing organizations to commit to loans or investments. The technology dimension of the enabling environment also assumes that there are trained individuals with technology-specific capabilities and their knowledge can be maintained and keep pace with changing standards and new products and services. Universities and other private entities often provide technological education. Technological innovation for novel health workforce approaches is therefore constrained or potentiated by the financing, hardware, software, and human partners that are largely invisible to the communicating patient or provider.
Local Ownership: Greenstar Social Marketing’s franchise model in Pakistan

Family planning services are out of reach for millions of Pakistanis. Family planning options are limited by poor quality programs, a lack of serious government efforts to promote family planning, and insufficient local buy-in. To overcome these hurdles, Greenstar Social Marketing Pakistan uses a franchising model to distribute family planning products and services. The organization operates a network of over 7,500 private healthcare providers, including male and female doctors, female paramedics, and pharmacists. Greenstar signs franchising agreements with providers for distribution of 19 products or services and maintains ongoing contact to ensure quality.

In addition to providing supplies and technical support, Greenstar employs doctors who train franchisees in family planning counseling, hormonal contraceptive dispensing, and intrauterine device (IUD) insertion. Greenstar has developed a strong brand associated with high quality care. It is now the country’s second-largest provider of family planning services.

Greenstar’s local ownership model helps create demand for health services and products. In addition to mass media campaigns, local clinics use street theater and mohalla (neighborhood) meetings to foster greater awareness of family planning. For women, mohalla meetings encourage open discussion of sensitive issues in a safe and conducive environment. Trained Greenstar providers, who are highly regarded within their community, lead the meetings and provide accurate medical information. A 2002 external evaluation showed that as many as 25% of attendees subsequently seek a family planning consultation with a Greenstar provider.

The liberalization of Malawi’s economy in the early 1990s aimed to increase private sector diversity and competition. However, Malawi’s economy remained characterized by high levels of government ownership and control. Attempts in the late 1990s to engage the private sector and civil society were generally weak and inappropriate. Some dialogues degenerated into a running argument in private and public, resulting in further entrenchment of positions and abandonment of dialogues. Consequently, the private sector often ignored governmental processes or was unhelpfully critical of government.

Engaging civil society, including civic groups, trade associations, labor unions, religious entities, and professional associations, is crucial to the ability of health workforce innovators to carry out their mission. Such engagement stimulates local initiative and draws inward investment. In Malawi in the 1990s, a lack of trust between these entities and government hindered progress. Public-private dialogue (PPD) can play a role in engaging civil society and promoting enabling environment reform. Governments that listen to the private sector are more likely to promote workable reforms, while entrepreneurs who understand government objectives are more likely to support these reforms.

In Malawi, processes emerged to create opportunities for effective PPD. These were often initiated by forward-looking business people, civil servants, and government ministers who saw the need for and benefits of engaging with each other. As indicated in Figure D, PPD was just one way in which the private and public sectors interacted. In 2001, following a national event about developing the private sector, a small group of senior public and private sector leaders met to prioritize sub-sectors for national focus. Titled the National Action Group (NAG), it recognized the need for continuing dialogue and continued to meet with the help of local facilitators. Since 2001, the NAG has progressively expanded its discussions by inviting in other people and organizations that can help resolve barriers to business development. Its objective is to improve the enabling environment through dialogue and action.

In 2002, DFID funded a Secretariat to support the NAG process by convening the group, undertaking supporting analysis, establishing and developing industry working groups, and following up on agreed actions. In 2003, NAG determined that it should not just address issues as they arose, but should develop a “business plan for Malawi.” This resulted in a joint public-private strategy for private sector development, the Malawi Economic Growth Strategy (MEGS).

Among other components, the MEGS states: “The economic returns for public and private investment in people are often extremely high. Markets in developing countries cannot generally be relied upon to provide people, especially the poor, with adequate education (especially primary education, health care and nutrition). In addition to increasing the quality of human investment, Governments must improve its quality.” The NAG promoted PPD by engaging civic groups, business, and the government.

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8. Education and training

Health workers are trained and educated by public institutions, private educational organizations, NGOs, and private firms. Each national or regional context has widely differing resources to train and educate health workers and each context may have varying degrees of alignment between population health needs and the number and type of professional health workers available to treat those needs. McKinsey analysis argues that assumptions about health delivery models should be revisited and that the proportion of paraprofessionals (including community health workers) versus physicians, nurses, and midwives may be misaligned with population needs.\(^7^0\)

Health workforce innovators are introducing new care delivery models and frequently introducing new paraprofessional roles. The institutional capacity to train and educate health workers plays an important constraining/potentiating role for these innovators. Where institutional and private education options are unavailable, costly, and/or lengthy, the innovators may do the training and preparation themselves. Doing so may exacerbate concerns about quality of knowledge and service quality to patients. This is particularly relevant when the health workers are in emerging categories such as community health workers (CHWs). The GHWA has been particularly sensitive to and active about this issue. They have provided guidance to countries\(^7^1\) and urged governments to accept the responsibility of ensuring quality of paraprofessionals such as CHWs. While governmental participation, adoption, and regulation may occur where the government has capacity, innovators will continue to pursue speedier and lower cost options. These disruptive innovations create tensions between other aspects of the enabling environment, including the government as a regulator and with health advocacy professional organizations. Box E provides one example of an innovative education program for rural health workers.

9. Health workforce innovators

The health workforce innovators are a part of the enabling environment in which they operate. The innovators that the PSTF identified varied in four capacities that were important to the innovator’s maintenance, and its ability to seize opportunities for expansion and influence the enabling environment.


Since the mid-1990s, Kenya’s infant and child mortality rates have increased and the use of public health services has decreased. Kenya’s National Health Sector Strategic Plan (NHSSP) identified weak public health management systems as one of the factors contributing to the decline in health status. For example, rural health facilities often have poor financial management and unsustainable operations. The government of Kenya stated that it aims to improve the efficiency and quality of services in government-supported health facilities, but a dearth of leadership and management prevents progress.¹

A 2008 survey of Kenya’s public health workforce found that most managers in Kenya’s public health sector have a clinical background without any formal management training. Nepotism and political considerations, not management competencies, often determine appointment into management positions. Furthermore, the management training that does exist is of poor quality and not widely available. Although there were 29 health systems-related programs and courses offered in Kenya in 2008, over 50% of health sector managers outside of Nairobi were unaware of any of the training courses.²

Figure E identifies the principal factors that impede healthcare management programs.

In 2009, the International Training and Education Center for Health (I-TECH) introduced a program to improve the delivery of healthcare services by developing health management skills. To develop a program of regular workshops, individual and team practical assignments, and mentoring, I-TECH collaborated with Family AIDS Care and Education Services (FACES) in Kisumu and provincial offices of the Medical Services and Public Health and Sanitation Ministries in Nyanza. In 2010, for instance, I-TECH delivered a 5-day training to 28 provincial and district health managers working in the western region of Kenya. This workshop was attended by rural medical officers, district public health nurses, hospital clinical officers, district AIDS and sexually transmitted infection coordinators, and personnel from provincial health offices. Participants discussed the roles and qualities of leaders and managers; the importance of a positive work environment; communication, supervision, and team-building techniques; strategies for overcoming managerial challenges; and processes for measuring results.³ I-TECH intends to continue offering well-publicized, low-cost training workshops in rural locations.

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A. **Business experience/planning skills:** Health workforce innovators are frequently inexperienced in conceptualizing and writing scalable business plans. Unpublished studies of the role of the private health sector have also observed this shortcoming. As a result of the deficit, health innovators often have difficulty preparing business plans worthy of investment, loans, or additional aid as evaluated by various sources of capital. The same level of skill and ideation that was adequate to secure initial funding is often inadequate for large-scale funding. Skills in healthcare delivery may be the impulse that spawned the innovation, while business management and organizational skills lag behind. Operating in weak enabling environments may exacerbate this internal deficit, as there may be few managers available to enter the innovator firm with greater management skills.

B. **Self-sustenance:** Health workforce innovators may also be inexperienced with business models that specifically provide for partial or full payment for services by recipients. In some cases, the services are delivered to poor populations that have limited resources, or there are restrictions imposed by regulators or funders on receiving funds from recipients of services. Many innovators reported that the inability to reach scale is the primary impediment to becoming self-sustaining. They are caught in a self-defeating cycle where lack of access to capital keeps them dependent upon scarce outside credit and donor funding to continue the programs. Theoretically, at scale, they would be partially or fully self-sustaining.

C. **Measures and linkages:** Innovators frequently secure initial funding through proposed programs aimed at health system building blocks: that result in changes in financing, payment reforms, new organizational forms, or changed patient behavior. Growing pilot programs to scale requires that these building blocks result in positive changes to outcomes or population health measures. Frequently, showing such change requires many years of sustained effort and resourcing. Measuring and demonstrating those linkages is often a function of funding levels and the commitment of innovators to building fact-based arguments to show those linkages even if in an informal, non-systematic way. According to WHO’s Framework for Action,\(^2\) for innovators to achieve

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scale and replicate, they must understand (and perhaps validate) causal linkages among controllable variables (i.e., building blocks) in the health system (e.g., service delivery, health workforce, information, medical products, vaccines and technologies, financing, leadership/governance), system performance measures (e.g., access, coverage, quality, safety) and eventually changes in health populations (e.g., improved health, responsiveness, social and financial risk protection, improved efficiency). Many of the health workforce innovators are relatively young in their lifespan; therefore, long-term health outcome results are not available. These innovators are often under-resourced and investment in causal analyses and health outcome measurements may not be required by funders, but may be important to longer-term investment. Similar to “self-sustenance,” innovators may be caught in a self-defeating cycle where being under-resourced for data capture and causal linkage analysis means they cannot create the fact base needed to secure greater funding for expansion.

D. Understanding and influencing the enabling environment:
Health workforce innovators demonstrate an understanding of their influential capacity within the enabling environment. But growth and expansion requires a deeper understanding of the political economy and a greater facility to operate within and project influence on the enabling environment. Innovators, especially those whose programs are changing the roles of health workers, have by necessity needed to interact with regulators and professional organizations. As their programs gain influence, but are constrained by the lack of recognition for these health workers in novel roles, they become more able to influence the enabling environment.

One interesting approach is described in the book, “Wide Lens: A New Strategy for Innovation.” Ron Adner describes mapping the ecosystem of innovators and creating a Value Blueprint. Adner, Ro. 2012.n The Wide Lens: A New Strategy for Innovation. New York: Portfolio/Penguin, New York., 2012 This approach follows the tradition of direct and indirect stakeholder identification to understand the risks and benefits from their perspective to adopt or participate with the health workforce innovator. We can consider NGOs and complementary health innovators in the same area of activity or space. An innovator’s understanding of its dependence on the full range of actors involved in its value chain may be as critical to overall success and expansion as the efficacy, safety, financing, and management of the primary service or product itself.
Promoting Dialogue to Improve Enabling Environments

The KD-AGA co-ordination and facilitation (CCF) process brings together all HRH stakeholders in a country to jointly plan, implement, monitor, and evaluate comprehensive HRH policies, strategies, and plans. This process establishes country coordination frameworks for all public and private stakeholders involved in HRH to dialogue and implement HRH development plans. Specifically, the KD-AGA states: “The global and national policy environment must create the necessary space for effective action, where multiple stakeholders pull together, guided by evidence, innovation, solidarity and mutual accountability.”

Because HRH is a public domain that requires strong involvement and engagement from governments, and because there is often no dialogue between the public and private sectors and mistrust is widespread on both sides, developing such platforms for dialogue and action between public and private actors in the HRH field is the most effective way to ensure sustained improvements in national enabling environments.

Other development partners are implementing similar strategies to promote dialogue and create conducive environments for the development of the private health sector. For example, the IFC Health in Africa Initiative is bringing public and private stakeholders together, helping them analyze current contributions of the private sector and develop a reform action plan to facilitate additional contributions and promote PPPs. Several countries are in the process of developing such plans, which usually include actions aimed at improving PPD; policy, legal, and regulatory frameworks; access to financing; and concrete PPPs.


75 Written correspondence with Marie-Odile Waty, Agence Française de Développement (AFD). Mrs. Waty was serving as Lead Health Specialist, IFC-World Bank Health in Africa Initiative at the time this report was written. Lead Health Specialist, IFC - Health in Africa Initiative. December 20, 2010.
Accelerating Scaling and Replication of Health Workforce Innovation While Strengthening the Enabling Environment

Business incubators

Business incubators nurture and spawn new firms by providing initial capital, training, consulting advice or, in some cases, physical resources such as office space. When they operate in emerging markets, the incubator acts not only to breed new businesses, it also works directly or indirectly to increase the market-oriented institutional environment. Furthermore, it can increase business capabilities in the “hatched” firms themselves and raise general performance in the local market.  

of incubators can differ, but their shared goals are to support the formation of innovative companies for job creation and economic development. Business incubators, which are commonplace in high-income economies, are appearing in emerging economies as well. For example, in Nigeria, incubators operate under a federal umbrella in six states. Several studies have identified the impact of incubators in emerging markets.\textsuperscript{77,78,79} A 2010 World Bank survey identified 134 incubators in 68 emerging markets. In emerging economies, incubators fill a gap where the institutions and enabling environments are not strong enough to support new business development.\textsuperscript{80} The World Bank has observed that incubators in emerging markets also serve to accelerate the growth of development groups and their agendas and are frequently operating in the health sector.

The International Partnership for Innovative Healthcare Delivery (IPIHD) has identified a number of gaps that restrain healthcare provider innovators from surviving their initial start up and expanding to the intermediate stage of development.\textsuperscript{81} IPIHD calls this gap the “valley of death.” Other research in emerging markets has identified similar entry and survival barriers for newly formed organizations.\textsuperscript{82} Many promising health start-ups struggle or fail at early stage. Interviews with health innovators, IPIHD’s work, and World Bank analysis have identified a need to match funders to health start-ups while raising the managerial, financial, and operations management capabilities of the start-ups. An incubator can fill such gaps. Building upon and extending the above observations regarding business incubators, a health workforce innovation incubator can be constructed to improve the institutional capacity, business capability, and health-related milieu that support the growth of the private health sector while providing capital and skills training to leader/managers.

There are a number of existing resources from which an incubator focused on supporting health workforce innovators can draw intellectual, experiential, and other forms of support. In addition to the IPIHD, the work of ACCESS Health International, the Institute for Healthcare Improvement, and the Deshpande Center have informed aspects of the health workforce incubator proposed below.

\textsuperscript{77} Altenburg, T. and Meyer-Stamer, J. 1999 How to Promote Clusters: Policy Experiences from Latin American. World Development, 27(9): 1693-1713
\textsuperscript{80} World Bank. 2010. infoDev’s Monitoring, Evaluation & Impact Assessment Study.
\textsuperscript{81} See www.IPIHD.org
**Health workforce incubator (HWInc) model**

Through case study development, interaction with innovators in Kenya, Mali, and Zambia, surveys conducted with health workforce innovators in 2008 and 2010, and a review of incubator services in emerging markets, the PSTF proposes an incubator model to address health workforce challenges. The PSTF refers to this model as the Health Workforce Incubator (HWInc).

The HWInc has five primary goals:

- Increase the scale or replication of innovative private health sector workforce enterprises and organizations
- Promote the development of the private health sector enabling environment
- Promote dialogue between public representatives, private sector leaders, and key actors in the enabling environment to reduce barriers to private health sector growth
- Strengthen health systems through public-private collaboration to develop sustainable private sector solutions which fill health workforce gaps and complement public actions

There are three steps in the HWInc cycle:

1. Identify local health workforce needs and match these with innovative local and global providers
2. Train health workforce innovators in leadership, business management, and enabling environment analysis and provide business plan preparation consultation and technical support
3. Match funding sources with business plans

**Step 1 - Match innovators with local needs**

To improve population health outcomes related to MDGs 4, 5, and 6, developing countries must address a variety of health challenges, including strengthening local health systems and responding effectively to the health worker shortage. The HWInc cycle begins by identifying local needs, identifying health workforce innovators, and matching needs with health workforce innovators operating in country and globally. Services provided in this cycle of the incubator include:
A. Review national health plans to identify health sector needs and set priorities

B. Identify health workforce innovators that match local priorities

C. Recruit health workforce innovators to participate in the HWInc cycle

The next section provides examples of how the PSTF has addressed the first two activities in the first step of the incubator.

**A. Identification of local needs**

In Mali, the PSTF worked with the FMPOS at the National University of Mali, Santé Sud-Mali (a French-Malian NGO), and the Association of Rural Physicians (AMC) to scale-up the Mali Rural Physicians Initiative, a program that recruits, trains, and supports doctors in rural areas of the country. The program has been in existence since 1989 and has significantly increased the retention rate of young doctors in rural areas. Data from a 2009 joint Mali Ministry of Health and WHO evaluation show that doctors in the program practiced in a rural area for an average of 4.57 years compared to 2.68 years for doctors not participating in the program.83

The 2009 study was primarily a process evaluation of the initiative and only provided anecdotal evidence of the program’s impact on national health indicators (such as MDGs 4, 5, and 6). No baseline data had been collected prior to the start of the initiative, so the evaluation could not measure the health outcomes resulting from the presence of the rural doctors.

The PSTF identified the lack of baseline data as an important impediment to the successful scale-up of the initiative in Mali and replication of the program in other countries. The PSTF partnered with the FMPOS at the National University of Mali, Santé Sud-Mali, the Association of Rural Physicians (AMC), and Witwatersrand University in South Africa to conduct a survey in the Sikasso region of the country to collect baseline data on the socioeconomic status of the population and assess the access, quality, and cost of services provided by rural doctors in the region. The purpose of the survey was to provide baseline data for a future impact evaluation and identify local needs that will inform the scale-up of the program in the Sikasso region.

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B. Identification of health workforce innovators

A number of surveys and studies have identified innovative private health sector models that are addressing health sector challenges in low-income countries. However, there is no specific categorization for innovative private sector approaches to address the health worker shortage. To address this knowledge gap, in 2008 and 2010, the PSTF identified, surveyed, and interviewed a sample of private sector innovators that were helping to train, retain, or build the capacity of the health workforce in low-income countries.

This research resulted in a list of initiatives addressing the health worker crisis throughout the world. Surveys and interviews with the directors of these projects provided information on the specific health workforce needs the programs address, the factors that have enabled these innovators to become successful, and the greatest challenges the projects face. Health workforce innovators need to be recognized and given global attention to promote scaling and replication. In turn, innovators need to provide additional information regarding program practices and their effect on health outcomes for the populations they serve; this information must meet global standards of objectivity and independence.

One promising approach is to build on the information provided through the Center for Health Management Innovation (CHMI). This web-based platform collects information and allows analysis and linkages with donors and other researchers regarding private health sector innovation in low- and middle-income countries. Innovation in the areas of service delivery models, improving market functioning to increase quality, overcoming information asymmetries, and new financing models are captured by CHMI. The HWInc could conduct an independent analysis to identify the health workforce innovators among those firms in CHMI’s data set. Identifying, analyzing, supporting, and promoting the health workforce innovators is an on-going need for the HWInc, but also for maintaining a comprehensive approach to the HRH crisis.

84 For example, Bhattcharyya et al. published a paper, Innovative health service delivery models in low and middle income countries – what can we learn from the private sector, and Results for Development has established the Center for Health Market Innovations (CHMI).

85 The PSTF found that many of the identified initiatives did not necessarily define their primary goal as helping to resolve the health workforce crisis; however through interviews, it was discovered that many of these programs do build health workforce capacity.

It is necessary for the HWInc to conduct these types of needs assessments and landscaping studies to allow local governments and innovators to identify existing programs addressing similar needs in other countries; learn about the strengths, challenges, and enabling environment factors that have potentiated or limited the growth of these initiatives; and assess the potential for adapting an existing program to fit local needs.

While the PSTF supports a free market for innovation, it is clear that broad knowledge of health innovation occurring in other locales and across national borders is inadequate. The matching steps described above encourage and balance the development of local resources while promoting a global search for best practices and promising models for replication in new markets.

**Step 2 - Leadership, management, and enabling environment training and business plan preparation**

The second step in the HWInc cycle involves enhancing the skills of innovators to build sustainability for their initiatives. Specifically, this step includes training in business management and leadership skills so that innovators can effectively prepare and manage the creation or expansion of an initiative. The training also includes analysis of the local enabling environment to anticipate the forces that will constrain and potentiate the innovation as it scales up.

Services provided in this step of the HWInc cycle include:

A. Training in leadership, management, and business planning

B. Local enabling environment analysis

C. Business plan preparation consultation and technical support

The next section describes the ways in which the PSTF has implemented the first two activities in the second step of the incubator.

**A. Management and leadership training**

The PSTF, in collaboration with Management Sciences for Health (MSH), engaged Zambian consultants to conduct business management and leadership training for shop owners operating as part of the Zambia Access to Artemisinin-based Combination Therapy Initiative (ZAAI). ZAAI, created by MSH in collaboration with the Zambian Ministry of Health and Pharmaceutical Regulatory Authority and based on the Tanzanian model of Accredited Drug
Dispensary Outlets (ADDO), is a rural pharmacy program that ensures the availability of malaria treatment drugs to communities across the country.

ZAAI shop owners expressed a need to MSH for training in business and management topics such as access to funding, finance management, marketing, communication, record keeping, networking, costing, and pricing. To meet this demand, MSH engaged the PSTF, which provided funding for Zambian trainers to adapt the entrepreneurship skills training materials used in the ADDO program in Tanzania and conduct training for Zambian shop owners in the Lundazi and Chama districts in Zambia’s Eastern Province and Kasama and Chinsali districts in the Northern Province.

The training had numerous objectives, including:

• Provide the shop owners with the ability to establish and maintain a proper recordkeeping system for their businesses

• Build capacity of the shop owners to use business management skills to make well-informed financial, marketing, investment, and management decisions

• Teach the shop owners to manage their businesses more efficiently and professionally (e.g., in line with the existing pharmaceutical regulations as prescribed by the Pharmaceutical Regulatory Authority (PRA) and sound business ethics)

• Improve the overall performance of ZAAI business

Feedback from the participants led the trainers to conclude that this initial training was an important step in closing the shop owners’ business knowledge gap, and that additional training in this area would help increase the owners’ confidence that they could manage their own business with minimum assistance.87

A stakeholder analysis of the ZAAI project has been completed.88 Among its findings was that “the business opportunities for certified private sector pharmacies and the benefits of developing synergies with rural health shops should be further explored.”

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The stakeholder analysis provides several examples in which components of the environment in Zambia act as constraints on the ZAAI pilot program and portend the manner in which an expanded ZAAI would incite changes in the government regulatory environment.

B. Enabling environment analysis

Between 2000 and 2005, Kenya experienced the loss of many of its most experienced nurses. In 2005, the Kenya Ministry of Health,89 the Nursing Council of Kenya (NCK), the African Medical and Research Foundation (AMREF), and Accenture partnered to create the Nurses’ eLearning Upgrade Programme to upgrade the skills of the 22,00090 certificate nurses to RN diploma status by 2011. In response to numerous requests for replication from African governments and nursing bodies, by early 2008 Accenture/AMREF developed a replication strategy, an accompanying implementation guide, and replication assessments of Uganda, Ethiopia, and South Africa.

In October 2009, the PSTF funded the placement of a research associate in Nairobi, Kenya. The researcher’s task was to better understand the relationship between the Nurses’ eLearning Upgrade Programme and its enabling environment in Kenya and identify program-specific aspects of the Ugandan enabling environment that could influence the replication of the e-Learning program into Uganda. A limited set of interviews with staff in Kenya (no interviews were conducted in Uganda), a review of Kenya eLearning reports and materials, and the replication plan for Uganda were utilized.

To ensure successful replication in Uganda, AMREF and the research associate highlighted a number of enabling environment factors discussed in earlier sections of this report. One poignant example of the importance of identifying enabling environment factors was the fact that Uganda’s Ministry of Public Service does not currently recognize Enrolled Comprehensive Nurses in the salary scale of the Enrolled Nurse. Therefore, unlike Enrolled Nurses in Kenya, this class of nurses in Uganda might not be fully

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89 The Ministry of Health has since been divided into the Ministry of Public Health and Sanitation and Ministry of Medical Services.

90 This was the number of nurses believed by the NCK to be eligible for upgrading in Kenya at the time the eLearning program was commencing. It has been difficult to validate this number as much of the HRH data in Kenya is not digitized.
incentivized to upgrade to the Enrolled Comprehensive Nurse level (although others do upgrade to registered status). This example and other information obtained from the PSTF’s project-specific enabling environment analysis of Kenya and Uganda exemplifies the importance of fully assessing the enabling environment factors that may allow a program to succeed in one context, but may not exist in another context. The absence of such factors may prevent the full implementation of the same program if steps to adapt the initiative are not taken.

Step 3 - Match funders to innovators

The third step in the incubator cycle involves matching health innovators and their business plans to funding sources. In this step, the HWInc provides administrative support and facilitates access to potential funding sources. Ideally, the HWInc will create a network of funders that will include local investors and lenders as well as global or multi-national foundations, governments, and other funding sources.

Where the HWInc is housed in a local institution, university, or NGO, for example, the cycle of reviewing business plans with funders can happen as frequently as funders and planners find useful. Where there are many innovators seeking funding, the cycle will need to be more frequent and when there are fewer, the “matching” step may be semi-annual or annual.

HWInc services offered in this cycle of the incubator include:

- Access to a network of investors and funders
- Advocacy on the part of innovators to governments, private sector, and civil society funders
- Opportunities for innovators to present business plans to funders
- Administrative support for innovators who receive funding

As evidenced in the responses from the 2010 private sector health workforce innovator surveys and interviews administered by the PSTF, access to funding is a barrier for many innovators. For example, The HealthStore Foundation, a private health workforce innovator interviewed by the PSTF, is hindered by the reluctance of local banks to invest in child and family wellness (CFW) clinic franchises. The

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Touch Foundation, also interviewed by the PSTF, identified additional funders and implementers as a critical component to growing and expanding as an organization. Vivian and John Mthetwa, in the Basic Entrepreneurship Training Course for ZAAI Dispensary Owners Report, state that business growth and sustainability requires increasing access for shop owners to financial services (e.g., banking services, loans, and other general business development services).

Therefore, the HWInc has an important role to play in matching innovators to funding sources such as local or international investors, governments, multi-national aid organizations, and/or private donations. The incubator should provide innovators assistance in addressing national legal and regulatory issues that prevent innovators from accessing government, private sector, and donor funding.

IPIHD analysis and the experiences of ZAAI and AMREF in distance learning support the need for increased funding and useful case studies demonstrating how innovators have found resources. AMREF has enjoyed a collaboration with Accenture for technical support and funding. The replication of the program into Uganda was supported by a grant from the Fresenius Corporation. The Fresenius support also included a replication study to identify the enabling environment differences between Kenya and Uganda that could create barriers to successful cross-border movement of the program. ZAAI was funded primarily through the World Bank (a small grant was also provided by the PSTF for training support) for its pilot and benefited greatly by using MSH as its technical advisor. MSH pioneered the successful ADDO program in Tanzania. While government, foundation, private, and public/private sources exist, innovators report they have difficulty finding those sources. Funders have their own preferences and priorities for the types of innovation they will support. CHMI, as a freely accessed online resource, and HWInc as a training and matching service, are both needed to fill the gap between innovators and funding.
The Way Forward

In response to the health worker crisis, the private sector is innovating. Health workforce innovation is a specific and identifiable capability that deserves greater observation, research, expansion, and replication. Coordinated efforts can be made to accelerate each of these four activities.

Observation

- **Create a clearinghouse or data repository with updated information on health workforce** innovators across the globe: Private sector actors need resources to make them aware of alternative models to meet health workforce needs. As has been described, the CHMI is a web-based model that identifies private sector innovations and includes a feature that matches innovators to funding. It would be desirable if the CHMI included analysis or a specific thematic interest in health workforce innovations. A clearinghouse or data repository, such as CHMI, that tracks innovators will assist in the dissemination of this knowledge.

- **Standardize measurement and evidence regarding activities and outcomes**: Many universities, foundations, and private organizations have their own approaches and requirements for funding. These requirements often prescribe measurement and evidence gathering. Those institutions can collaborate to develop standards. Organizations that are actively engaged with private health sector innovation in resource-poor settings and could participate in standards development include:
  - ACCESS Health International
  - Acumen Fund
  - Bill and Melinda Gates Foundation
  - Corporate Council on Africa
• Duke Global Health Institute
• Fuqua School of Business, Duke University
• George Institute
• Global Business School Network
• Global Fund
• Global Health Workforce Alliance
• Health Systems Initiative (University of California at San Francisco)
• IFC
• India School of Business
• Institute for Healthcare Improvement
• London School of Hygiene and Tropical Medicine
• Red Cross
• Robert Wood Johnson Foundation
• Rockefeller Foundation
• Stanford University
• UN Foundation
• UNICEF
• United Kingdom Department for International Development
• USAID
• WHO
• World Bank
• World Health Care Congress
• Yale University
Research

- Acquire funding to study several of the most promising health workforce innovator approaches: Most health workforce innovators report self-developed information. Rarely does that information include health outcomes information or results validated by third parties with statistically rigorous methods. Funders and actors interested in replicating or modifying these approaches would benefit from research. One partition in such a research design would be to compare innovators that are attempting self-sustaining business models versus those that are not (partial or full self-sustenance may not be possible given the nature of the service population or the business model).

- Develop a medium- to long-term research agenda focused specifically on private sector health workforce innovation: Health workforce innovation is a worthy topic of research inquiry as an aspect of innovation, but more important is the scope and immediacy of the health workforce shortage. Private sector contributions to filling the health workforce gap can be better understood and accelerated through research. Many of the institutional actors identified for involvement in the development of common evidence standards are also engaged in research and could develop this type of a research agenda.

- Apply the new science of implementation research to health workforce innovation: Typically, implementation science is defined as the translation of medical evidence to real world application. In its infancy, as applied to scaling and/or replication across national borders, it could provide useful concepts and approaches to research. Many of the university and research-oriented institutions cited above are organizing various disciplines to build implementation science capabilities. The PSTF recommends health workforce innovation as a subject area ready to test these emergent insights and skills. The urgency to fill the human resource gap should also draw implementation researchers to health workforce innovation.

Expansion

- Provide training to health workforce innovators in business planning, self-sustenance, measurement and linkages, the enabling environment assessments: Health workforce innovators are frequently not reaching scale. As
has been discussed in this report, the inability to scale is due to constraints in the enabling environment, which includes the health workforce innovators themselves. National governments and NGOs with a focus on human resources development and/or economic development in the health sector may want to target health workforce innovators for such training.

- **Increase dialogue among key actors in the health workforce enabling environment:** Dialogue has the potential to reduce barriers that result from long standing misunderstandings between the public and private sectors. The human resources crisis has created an imperative for action that can be supported by dialogue. Abt Associates and Bannock Consulting have demonstrated successful examples, techniques, and benefits of such dialogue. In addition, IFC’s Healthy Partnerships report describes case examples and effective approaches to promote such dialogue. The KD-AGA country CCF process also brings all HRH stakeholders in a country together to jointly plan, implement, monitor, and evaluate comprehensive HRH policies, strategies, and plans. Health worker advocacy organizations must be directly engaged through this process to not only lobby for the conditions to help their members succeed, but also to support private health workforce innovation. At times, these may be conflicting and competing demands.

- **Direct government and NGO economic development efforts to the private health sector with particular attention to including health workforce innovators:** USAID’s Banking on Health initiative has demonstrated that direct efforts with local banking institutions and private sector for-profit firms can improve access to capital. Assisting a select group of health workforce innovators to reach scale in a local, regional, or national context can serve as a model for both addressing health workforce needs and simultaneously introducing new approaches to financing, health delivery, and/or quality improvement.

**Replication**

- **Recruit health workforce innovators to participate in existing health sector incubators:** Health workforce innovators rarely cross borders. Lack of replication is likely the summary effect of lack of observation, research, and expansion. Programs
such as ADDO/ZAAI and AMREF eLearning are the exception. The PSTF suggests identifying and recruiting health workforce innovators to participate in existing initiatives such as the IPIHD, which is working with private corporate partners to initiate an incubator for healthcare provider innovators. In many cases, the innovators they have identified as providers are also identified in the PSTF’s work as health workforce innovators.

- Provide funds and a competitive bidding process (including a cycle of needs identification, requests for proposals, proposal responses, awards, and funding) to foster replication of innovators: Governments, local universities, or NGOs could sponsor such activities. Incubators are not the only method to promote replication. Locales, regions, and national level actors can take it upon themselves to review their health needs and seek out private sector partners with models worthy of replication. While governments and NGOs may require technical support, it would be highly desirable for local entities to initiate such a cycle. Global foundations, bi-lateral aid programs, or NGOs can initiate such a cycle focused on the replication of successful health workforce innovations.
Appendix A

Private Sector Task Force (PSTF) Members and Secretariat

PSTF Members

Elizabeth Ashbourne, World Bank
Wolfgang Bichmann, KfW Entwicklungsbank
Brian Brink, Anglo American plc (Co-Chair)
Kathy Cahill, The Harvard Global Equity Initiative
Collin Chansa, Ministry of Health, Zambia
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Manuel Dayrit, World Health Organization
Renuka Gadde, Becton Dickinson and Company
Yacouba Koné, Aga Khan Development Network, Mali
Christophe Lemière, Africa Region, The World Bank
Marty Makinen, Results for Development Institute
Michael Merson, Duke Global Health Institute, (Co-chair)
John & Vivian Mthetwa, Master Trainers, Consultants, Zambia
Stefan Nachuk, Rockefeller Foundation
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Francis Omaswa, African Centre for Global Health and Social Transformation (ACHEST)
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Ken Sagoe, Ghana Health Service
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Marie-Odile Waty, Agence Française de Développement (AFD)

**Secretariat**

Jeffrey Moe, Duke University, Task Force Director

Caroline Hope Griffith, Duke Global Health Institute, Task Force Officer
Descriptions of Health Workforce Innovators

Health Workforce Innovation to Increase Health Worker Supply

Nine private sector initiatives were selected based on their innovative approaches to increase the supply of health workers.

**Rural Technology Business Incubator – First Care Health Enterprise:** First Care is directed toward training, credentialing, equipping, and supporting “rural medical practitioners” to deliver simple primary health interventions. The program works to improve providers’ knowledge and skills; develop documentation systems for patient follow up; promote a holistic approach to patient care; develop strategies for standardization of health services; supply providers with low cost commodities, public health products, equipment, and audio-visual health education material; and develop simple diagnostic services. All this is enabled through the use of information and communications technology (ICT). Additional information is available at [http://www.rtbi.in/](http://www.rtbi.in/).

**Medical Knowledge Institute (MKI):** MKI is a Dutch non-profit organization that helps bring medical education and knowledge to local communities in 14 sub-Saharan African countries. The organization’s emphasis is on empowerment of local community members (vs. professional healthcare workers) through Health Information Centers that serve as educational resources and community centers. In 2008, MKI opened several Health Information Centres in Khayelitsha, Cape Town, Stellenbosch, Pietermaritzburg, and Soweto. The Health Information Centres created for the local communities offer a selection of training courses teaching different life skills and provide contacts with relevant support/information. Like many of the projects interviewed for this report, MKI is just starting to measure results. However, it can be said that more basic health services are being

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93 Information on these health workforce innovators was gathered in 2008 and updated in 2010.
provided by a greater number of unqualified, but now trained, basic health workers through MKI efforts. Additional information is available at http://www.infomki.org/.

**AMREF – Maridi:** AMREF opened Sudan’s Maridi National Health Training Institute in 1998; the first group of students graduated in 2001. By 2008, AMREF had trained 130 clinical officers, who accounted for more than half the total number of clinical officers in the whole region. In addition to its three-year course in public healthcare, nursing care, and surgical procedures, AMREF trains community or auxiliary health workers such as community health workers (CHWs). AMREF – Maridi is scaling-up a nine-month training program for CHWs. Upon completion, they can go on to become nursing assistants (which requires one year of study), and clinical officers. The program is also training community midwives and helping the government train medical technologists and nurses of all levels. The project plans to train public health technicians, officers, and laboratory technologists in the near future. Additional information is available at http://www.amref.org/where-we-work/our-work-in-southern-sudan/.

**Touch Foundation:** The mission of the Touch Foundation is to provide funding and management resources to developing countries for local programs that create HRH; build awareness around problems in healthcare delivery in developing countries; create, collect, store, and provide access to the leading information about global health; and share the knowledge gained from programs the foundation supports. The Touch Foundation works at Bugando Hospital, a public hospital that is the second largest hospital in the country and is funded partly by the Tanzanian government. Touch funds the hospital’s medical school (almost all students come from Tanzanian public schools), and, through the government, funds several students. In 2008, just four years after the initiation of the Touch Foundation, the number of medical students had increased from ten to 277, while total student enrollment across the university’s medical, specialist, and six paramedical programs had grown to around 800. Additional information is available at http://www.touchfoundation.org/.

**Healthstore Foundation/CFW Shops:** The HealthStore Foundation, a global leader in the use of franchising to distribute basic healthcare in the developing world, operates child and
family wellness clinics (CFWclinics) in Kenya and Rwanda. HealthStore/CFWclinics target nurses and CHWs as franchise owners to address a short list of diseases. Franchisees offer therapies and interventions, including medicines supplied through the CFW shops, for which they are specifically trained. As of 2008, HealthStore had served over 2,000,000 patients and customers through its network in central Kenya. This network treats an average of 40,000 customers and patients per month. Additional information is available at http://www.cfwshops.org/.

**Accredited Drug Dispensing Outlets (ADDOs):** The aim of the ADDO program is to ensure that more than 80% of rural and peri-urban areas in Tanzania Mainland have an opportunity to purchase quality-assured basic medicines from well-regulated and properly operated private medicine outlets manned by trained personnel. MSH’s ADDO project supplements the public drug supply system. The ADDO shops are organized as private ownership opportunities using a PPP model, which is a new approach for many governments and civil servants. The ADDO network has also created of a system for application and repayment of loans by ADDO owners through micro-financing institutions and provides access to medicines through health financing schemes such as the National Health Insurance Fund and the Community Health Fund. Like HealthStore/CFW, it holds the promise of being self-sustaining as the new health workers operating through these vehicles act as owner-operators. Additional information is available at  http://www.msh.org/projects/rpmplus/WhereWeWork/Africa/ADDOs.cfm.

**Health Careers of America:** Health Careers of America (HCOA) addresses the shortage of nurses and healthcare workers by supporting universities in developing countries with the funding, curriculum, technology, and trainers needed to develop healthcare workers. HCOA source countries include Ghana, Liberia, Uganda, Burundi, Rwanda, and Kenya. HCOA contracts with health facilities in developed host countries that are experiencing a shortage of nurses and are willing to pay to attract highly trained and qualified nurses from the developing world to work at their institutions. Host countries include the United States, Australia, and Canada. In April 2009, HCOA launched the Millennium Managed Migration Investment Plan (M(3) Investment Plan) to train and place 500 health workers. HCOA employs an innovative financing mechanism: the HCOA
Alliance Fund. The Fund was jumpstarted by five hospitals in the United States and Canada and some private investors. The Fund is sustained by private enterprise, makes a return on its investment, and is financially sustainable. Additional information is available at http://www.healthcoa.net/.

**Aga Khan School of Nursing (AKU-SON):** Since its inception in 1980, AKU-SON has played a leading role in establishing an internationally acceptable model for nursing education and practice in Pakistan and has trained 2,232 nurses. AKU-SON’s first academic initiative outside Pakistan, the Advanced Nursing Studies (ANS) Programme, began in Africa in 2001. It is designed to improve the quality of patient care by encouraging practicing nurses to enhance their expertise through the pursuit of higher education. An interviewee reported that, as of 2008, only three of 800 AKU-SON graduates have left Uganda in the last six years, which they believe is due to AKU’s highly active career management activities, which helps graduates find opportunities within the country. AKU demonstrates both flexibility in the delivery of its training as well as on-going support to increase the supply of qualified healthcare workers. Additional information is available at http://www.akdn.org/aku_nursing.asp.

**AMREF’s Nurses’ eLearning Upgrade Programme in Kenya:** To pioneer a country-wide eLearning program for upgrading nurses in Kenya, AMREF formed a PPP with the Nursing Council of Kenya (NCK), the African Medical and Research Foundation (AMREF), Accenture, the Kenya Medical Training Colleges, several private and faith-based nursing schools, and the Ministry of Health (MoH) Kenya. AMREF chose to use distance learning. In 2008, they developed 100 eLearning centers with 25 participating nursing schools. They had more than 4,500 nurses enrolled in 29 nursing schools across the country that year, using both print and eLearning modules. The 100 computer-equipped training centers were set up in eight provinces, including remote and marginalized districts. Currently, AMREF eLearning offers 17 short, distance-learning courses in areas of need. This innovative approach is increasing the supply of qualified nurses. Additional information is available at http://www.amref.org/info-centre/amref-courses--training-programmes/elearning-programme-/.
Health Workforce Innovation to Improve the Effectiveness and Efficiency of Existing Health Workers

Thirteen private sector initiatives were analyzed and selected for discussion regarding their innovative approaches to improving the effectiveness and efficiency of healthcare workers.

**Tulane University Technical Assistance Program – Ethiopia (TUTAPE):** The Tulane School of Public Health and Tropical Medicine piloted the TUTAPE program in 2006. The partnership between Tulane University and Jimma University in Ethiopia created a monitoring and evaluation curriculum for the Ethiopian Ministry of Health and provides the African country with a core of health workers trained to assess the effectiveness of health programs. TUTAPE itself is being rigorously monitored and evaluated, but large-scale results are not yet available. Interim results have been assessed and implemented regarding ancillary initiatives (health information systems) that have changed and standardized the structure of data collection in the country. This novel approach recognizes that on-going monitoring and evaluation will require specialized skills and a new cadre of professionals to carry out those duties.

**HIV/AIDS Coordination, Human Resources, and Health Systems – Zambia:** In 2004, Abt Associates began a six-year health services and systems program (HSSP) with the Ministry of Health to review and provide feedback on 72 district health action plans and ensure that 28% of districts had one facility offering a minimum package of HIV/AIDS services. This work includes analyzing human resource and training needs, introducing a health workers retention scheme, implementing an antiretroviral therapy information system (ARTIS) in 76% of the facilities nationwide, and developing a mechanism to accredit antiretroviral therapy (ART) providers in the private sector. Currently, clinical care specialists (seconded to all Provincial Health Offices) offer technical support supervision to health workers to improve quality, with special emphasis on HIV/AIDS services. Additional information is available at [http://www.abtassociates.com/collateral/ZambiaHSSP.pdf](http://www.abtassociates.com/collateral/ZambiaHSSP.pdf).
The Council for Health Service Accreditation of Southern Africa (COHSASA): The COHSASA assists a range of healthcare facilities (public and private) to meet and maintain quality standards. It does so by enabling healthcare professionals to measure themselves against standards and monitor improvements using quality improvement methods, internationally accredited standards, and a web-based information system. COHSASA provides data on the quality of health service provision to governing authorities so that the data can be used for strategic decisions. As of 2009, over 435 facilities have entered the COHSASA program. Additional information is available at http://www.cohsasa.co.za/.

Bidan Delima Quality Recognition of Private-Sector Midwives: IBI, the Indonesian Midwives Association, collaborated with STARH to form and launch the Bidan Delima network of high-quality midwives. Members of Bidan Delima have passed rigorous evaluations of their professional midwifery practices, including clinical and counseling practices for safe delivery, family planning, and pre- and post-natal care. The Bidan Delima project is an attempt to reach private practice midwives and provide an opportunity to bring their skills to the established standards and the rank of “Bidan Delima.” As of 2008, 1,668 midwives received the Delima certification. In West Java, there were 8,537 midwives, of which 6,000 were private midwives. There is still opportunity for growth of the Bidan Delima program. Additional information is available at http://healthmarketinnovations.org/sites/healthmarketinnovations.org/files/FINAL_BidanDelima72011.pdf.

RAISE Service Delivery Training Centers: RAISE is a five year joint program between Columbia University and Marie Stopes International to improve the reproductive healthcare response in crisis settings. The program has three major goals: 1) strengthen the institutional commitment of healthcare facilities; 2) expand the quality of reproductive health services provided; and 3) enable policy and funding environment. RAISE has centers in Nairobi and Burkina Faso that train existing healthcare workers in reproductive health. RAISE is developing a train-the-trainers course and a clinical supervision course. When the health workers return home from the training course, RAISE provides monitoring and support in the health worker’s country of origin through partner organizations. Additional information is available at www.raiseinitiative.org.
**MSH Technical Assistance to COMBASE:** COMBASE is a nonprofit Christian evangelical organization founded in 1964 to provide health services to the people of Cochabamba, Bolivia, and surrounding areas. Through its small general hospital and five clinics, COMBASE serves low-income groups, primarily women and children. In 2001, assessments showed that poor leadership, deficiencies in management systems, cash shortages, and debts were affecting the performance, financial stability, and sustainability of the organization. To remain competitive as a health service provider, COMBASE worked with MSH to update the program and financial information systems; design new human resource, administrative, and financial management systems; and improve overall organizational financial performance, which included a change from a salary system to a fee-driven system that ties payments to performance. This shift in remuneration policies, the improved effectiveness and efficiency of the organization, and the staff’s religious devotion to the organization’s mission has helped to retain healthcare workers. Additional information is available at [http://www.msh.org/projects/mandl/4.8.1.html](http://www.msh.org/projects/mandl/4.8.1.html)

**Karuna Trust:** The project is a collaboration between the Ministry of Health and Family Welfare, the government of India, the Department of Health and Family Welfare, the government of Karnataka, the UNDP, and the National Insurance Company to deliver community health insurance that is not exclusive of any disease at an affordable cost. The objectives are to develop and test a model for community health financing; increase access to public healthcare for the rural poor; and ensure equitable distribution of health through social insurance. As of 2008, Karuna Trust was running 30 primary health centers in all the districts of the state of Karnataka and nine primary health centers in Arunachal Pradesh.

**FriendlyCare Foundation, Inc.:** FriendlyCare was founded in the Philippines in 1999 with the vision of becoming a vehicle for greater private sector participation in the delivery of basic family health services such as family planning and reproductive health. The clinic offers family planning (donor subsidized) and other health services (fee-based). Today, its network of six clinics provides comprehensive, quality, out-patient services at affordable prices and is able to pay its nurses at a higher rate than in other clinics and provide a fee-for-service scheme for doctors within the network. FriendlyCare supports its
partner universities by providing on-the-job training for nursing students, and training of graduated midwives in business and other clinical skills. Additional information is available at http://healthmarketinnovations.org/program/friendly-care-foundation-fcfi

**Rwanda: Community Health Insurance Plan (CBHI):**
Community Health Insurance Plan (CBHI) schemes in Rwanda are health insurance organizations based on a contract between the community and healthcare providers (e.g., health centers, hospitals). They were started in Rwanda in 1999 and slowly, but progressively, expanded to cover 85% of the population by 2008. The CBHI schemes create legal mechanisms and elect representatives to regulate contractual relations between the organization and its members. Members of the insurance schemes use services four times more than non-members; thus, the government made participation in the private, community-based schemes mandatory. Members pay $2/person/year and Global Fund financing is used to cover 15% of the costs for the poorest sector of the population. In total, 73% of the population is currently covered.

**Hygeia:** Hygeia Nigeria Limited was incorporated in 1986 as a limited liability company. In 2003, the company reorganized itself and became the Hygeia Healthcare Services Group, comprised of four structures. The goal of Hygeia is to scale HIV/AIDS treatment via private sector providers by implementing capacity building for healthcare professionals in HIV/AIDS, TB, and malaria. The Hygeia Community Health Plan is a partnership between Hygeia, PharmAccess, and the Dutch Health Insurance Fund that resulted in the development of a community health insurance scheme offering insurance premiums for low-income communities. As of 2008, over 50,000 people have enrolled in the scheme from the communities of Shonga, Bacita, and Lafiagi. Since then, there has been a plan to enroll and provide access to medical care for an additional 50,000 individuals over a five year period.

**Janani:** Janani is a non-profit that implements a large service delivery program of quality health and reproductive health services and products in three of the poorest states of India. Identifying rural practitioners and private doctors as the avenues of opportunity, Janani has trained over 40,000 rural health providers, established 620 franchised medical clinics,
and delivers its products through 31,000 shops. Janani has established a partnership with the government and uses a business-franchising model and social marketing to network private providers. Additional information is available at http://www.janani.org/

**The AIDS Support Organization (TASO) – Uganda:** TASO is the largest indigenous NGO providing HIV/AIDS services in Uganda. The organization provides care and treatment to people living with HIV/AIDS, trains clinic healthcare workers, and educates the broader community. The Ugandan Ministry of Health (MOH) outsources to TASO clinics in 11 of its hospitals. TASO follows the guidelines put in place by the MOH for HIV/AIDS health services. Funding comes from a variety of sources including PEPFAR, SIDA, Irish Aid, and the Danish International Development Agency. As of 2008, 21 years after its inception, 200,000 people have received care from TASO. Additional information is available at http://www.tasouganda.org/

**Health Workforce Innovation to increase Retention of Health Workers**

Nine private sector initiatives were analyzed and selected for their novel approaches to improving the retention and/or overcoming misdistribution of healthcare workers.

**Santé Sud-Mali:** In 1989, Santé Sud (a French-Malian NGO) and the University of Bamako Faculty of Medicine, Pharmacy, and Dental Medicine (FMPOS) professors created the Rural Doctors Association and launched the Rural Physicians Initiative (Medecins de Campagne) to place young, well-trained physicians in remote rural areas in Mali. The European Union and French Cooperation funded the program, which recruits, trains, places, and supports young Malian doctors. From 1989 to 2009, more than 200 doctors worked with rural communities in the eight regions of Mali for an average of three years, serving a total of two million inhabitants. The program recruits young doctors wishing to relocate to rural areas, ensures they receive additional medical training in community health (theoretical and practical) to reduce the gap between their basic training and community demand, and incorporates them into a continuing education network. The process includes supervision and mentoring services for the doctors. The doctor has a contract that permits him to generate additional financial resources by earning a
percentage of the services that he provides in his facility. This process ensures the financial viability of the health center, while improving local health indicators. The experience of Medecins de Campagne has shown that the introduction of incentives and a proper monitoring mechanism attract and stabilize medical staff in rural areas who, due to a lack of funding, would otherwise have an uncertain future.

Uganda Private Midwives Association (UPMA): The UPMA’s mission is to provide high quality, accessible, and affordable reproductive health services, including primary care, to the community. The UPMA supports and trains over 700 private sector midwives in the areas of family planning, reproductive health, PMTCT, HIV prevention, testing, counseling, and basic women’s health. UPMA members must work in the public sector for at least five years and must be registered before qualifying to own a private clinic. Therefore, most of the members are retired. The UPMA provides support and training to retired government midwives so that they can continue to practice in the private sector, thus reducing the attrition out of active service and extending midwifery careers into retirement. Additional information is available at http://www.wougnet.org/Profiles/upma.html.

JHPIEGO: JHPIEGO is an international non-profit health organization affiliated with Johns Hopkins University. For nearly 40 years, JHPIEGO has empowered front-line health workers by designing and implementing effective, low-cost, hands-on solutions to strengthen the delivery of healthcare services for women and their families. Current projects include work in Mozambique, Afghanistan, Angola, Nigeria, Philippines, Ethiopia, and Tanzania. JHPIEGO uses a monitoring and revision unit for all projects, which is usually established by the donors (e.g., private organizations, USAID, CDC) and in which indicators are tracked to measure program achievements. Some of the performance mechanisms include healthcare worker retention and strategies for combating attrition. Additional information is available at http://www.upmouganda.org/

JTA International: JTA International is an international health services provision, consulting, and project management firm that specializes in the provision and implementation of health services to governments, industry, and global partnerships
in remote and challenging environments. JTA International is currently operating in a number of locations throughout Australia, South East Asia, Papua New Guinea, and the Pacific. Additional information is available at http://www.jtai.com.au/

**JHPIEGO Ethiopia:** JHPIEGO implements training in PMTCT, infection prevention, counseling and testing for HIV, and provider-initiated counseling and testing for 89 sites in Ethiopia. JHPIEGO supports the Ministry of Health in pilot-testing the use of non-health professionals as counselors. In addition, the organization is facilitating the use of a standards-based management and recognition (SBM-R) approach to improving performance and quality of health services for PMTCT, with plans to expand SBM-R to other areas, including antiretroviral therapy. JHPIEGO is also working to integrate HIV/AIDS content with pre-service medical and nursing/midwifery education at three Ethiopian universities. As of 2008, 128 Ethiopian trainers had completed JHPIEGO’s clinical training skills course and 23 trainers had completed the advanced training skills course. Additional information is available at http://www.jhpiego.org/en/content/ethiopia

**BD Global Health Department:** BD (Becton, Dickinson and Company) is a global medical technology company. The company’s Global Health Department makes investments in global health projects in developing countries to strengthen health systems. BD works to strengthen lab systems, educate health workers on medical devices, and provide training on CD4 monitoring equipment. BD initiated global measurements regarding HIV needle stick transmissions in collaboration with the University of Virginia. This process also has feedback mechanisms to measure working conditions, health conditions, and services that impact employee morale and migration out of country and out of profession. This program was first implemented in five countries and now is being evaluated to scale up to 14 countries across sub-Saharan Africa. Additional information is available at http://www.bd.com/globalhealth.

**Rwanda: Performance Based Financing:** To address the misdistribution of healthcare workers in Rwanda, the government introduced a performance based financing scheme to provide incentives to healthcare facilities and their employees to improve quality of care in rural areas. Predetermined targets were set (for example, 90% of women should deliver in a health facility) and
contracts between the government (with funding support from bilateral agencies such as PEPFAR, the Global Fund, and the World Bank) and health facilities were created. Between 2002 and 2009, Rwanda scaled-up access to community-based health insurance from 7% to 85% of the population, which has led to increased use of health services by poor children. Currently, every health facility and hospital has its own contract with the government.

**Santé pour le Développement et la Stabilité d’Haiti – Pwojè Djanm (SDSH) (MSH)**: Pwojé Djanm is an MSH-led collaboration of Johns Hopkins Bloomberg School of Public Health/Center for Communications Programs (CCP), AIDS Healthcare Foundation (AHF), JHPIEGO, and Fondation pour la Santé Reproductrice et l’Education Familiale (FOSREF) with USAID, the Government of Haiti, local NGOs, community leaders, and the commercial private sector. Pwojé Djanm’s focus is on supporting decentralization, strengthening public-sector capacity in service delivery, and supporting local NGO service delivery by leveraging funding from the commercial sector and other donors. As of 2008, the project was working in 152 health sites in 10 regions across Haiti, offering services to approximately half of the 8.2 million people in the country. Additional information is available at http://www.msh.org/global-presence/haiti-sdsh.cfm

**Inter-Religious Council of Uganda (IRCU):** Established in 2001, the IRCU serves as a representative body for the five major faith-based organizations (FBOs) in Uganda (Roman Catholic, Muslim, Anglican, Orthodox, and Seventh Day Adventist), for coordinating the country’s response to various national issues, including HIV/AIDS. It serves as the governing body through which FBOs, which currently make up 40% of the country’s healthcare services, can apply for sub-grants to carry out their various projects. It also serves to provide guidance and support in project planning, monitor project progress, and provide accountability to donor agencies. Additional information is available at http://www.ircu.or.ug/

**The Abt Associates-led Private Sector Partnerships (PSP) project in Ethiopia:** The PSP/Ethiopia works with Ethiopian private-sector organizations to increase access to HIV/AIDS and tuberculosis prevention, care, and support services. Funded by the U.S. Agency for International Development (USAID), the
project seeks to improve access, quality, and consistency of HIV/AIDS and tuberculosis prevention, care, and treatment by working with commercial industry, large employers, medium and small companies, and business coalitions. The program provides clinical training and clinical mentoring (i.e., ART services) as well as supportive supervision that will improve the effectiveness of healthcare workers. As of 2008, PSP-Ethiopia had supported workplace programs in 65 of the largest organizations in Ethiopia and provided training to improve the clinical skills of 220 clinicians in the area of TB and HIV prevention and clinical management. Additional information is available at http://www.abtassociates.com/Page.cfm?PageID=40454.
PSTF Reports and Supporting Documents

Four reports are available upon request that were supported by the PSTF and/or co-authored by members of the Secretariat. Please contact Caroline Hope Griffith (cah38@duke.edu), +1 919 613-6124 to request a copy.

1) AMREF’s Kenya Nurses’ eLearning Upgrade Programme case study

2) Zambia Access to Artemisinin-based Combination Therapy Initiative (ZAAI) case study (written by John and Vivian Mhetwa, Master Trainers, Consultants, Zambia)

3) Santé Sud Rural Physician’s Initiative - Mali epidemiological study overview

4) 31 Health Workforce Innovators – Long Descriptions
Documents Referenced


Government of Orissa, Department of Health and Family Welfare. 2010. Terms of reference for the appointment of a voucher management agency to manage a transport voucher scheme to allow women quick and easy access to appropriate health facilities for safe delivery and treatment of illness during the post-natal period. Orissa Technical Management and Support Team.


