



Better Hospitals Better Health Systems Better Health

A Proposal for a Global Hospital Collaborative for
Emerging Economies

Consultation Draft: September 23, 2014

Report of the Center for Global Development Hospitals for Health Working Group

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The Center for Global Development is an independent think tank working on health policy and financing issues that matter for the poor.

Preface

Hospitals are central to fostering healthy populations around the world. They serve as the first point of care for many people, offer access to specialized care, and set standards for national health systems at large. Despite their centrality, national policymakers and the development community have largely left off hospital policy and performance from their global health agendas, opting to focus instead on primary health care and the control of specific diseases. Only a small minority of hospitals in emerging economies – mostly private facilities serving higher income groups – meet global standards. Still, supporting even low-performing hospital systems requires significant resources and can consume as much as 70 percent of a government’s health budget.

Both public and private payers are seeking greater value for money from their hospital investments. There is a growing need for a more sensible, evidence-based domestic and international response. In emerging economies, evidence on what works to ensure the efficiency, safety, effectiveness and impact of hospital care is limited. While OECD countries offer relevant experience, the yawning gap in capacity suggests that more attention to fundamentals is needed before OECD innovations can be adopted in low- and middle- income countries.

In November 2013 the Center for Global Development (CGD) –a Washington DC- based think tank- convened the Hospitals for Health Working Group made up of global leaders and technical experts in hospital management, health economics, and hospital policy to help conceptualize a *Collaborative for Hospital Performance in Emerging Economies*. This group of experts has shaped the strategic vision for the proposed Global Hospital Collaborative (‘the Collaborative’ or GHC): to improve hospital performance in emerging markets while strengthening their integration into the broader health delivery system.

This report takes on the need for better performance of hospitals, arguably among the most technically and socially complex country-level institutions. The Working Group recommends a establishment of a Collaborative – that is, a network of individuals and institutions dedicated to fostering improved policymaking, investment, and management for emerging market hospitals (described further below). The report details a broad set of actions to improve knowledge exchange between hospitals, building on recent CGD initiatives to develop priority setting institutions and improve value for money in global health.

Adequate, efficient, and evidence-based investment in hospital operations and management innovations should be the cornerstone of sustainable and effective health systems – especially in a world where universal health coverage is the goal. Hospitals in low- and middle-income countries are underserved by existing institutions and support networks, and would benefit greatly from this “doorway” to hospital-related expertise and partnership with hospitals facing similar challenges. For those aiming to improve population health, the role and performance of hospitals can no longer be pushed aside.

At a Glance: The Proposed Global Hospital Collaborative

Why Hospitals?

- High-performing hospitals that serve low- and middle-income country populations are rare in emerging markets.
- Hospitals are a key component of efforts to achieve universal health coverage, yet they have been left off the global health agenda despite their essential role within a country's health care system.
- Hospitals are the most visible symbol of a country's health delivery system. Politicians and policy-makers tend to have a hospital-centric view of health care which may be an obstacle to improving whole-system performance.

Why now?

- Emerging market health systems are becoming increasingly hospital centric, yet hospitals are costly and inefficient – this threatens the viability of health systems and contributes to the financial burden of households
- Epidemiological and demographic conditions are changing rapidly: most emerging market hospitals are unsuited to coordinate with the broader delivery system and address challenges related to non-communicable diseases and aging populations.
- Traditional “rescue” functions of hospitals are deteriorating: as the Ebola crisis has demonstrated, emerging market hospitals are often ill-equipped to fulfill their traditional role of providing emergency care and treating the seriously ill.

What is the vision for a Global Hospital Collaborative (GHC)?

- To create a world where high performing hospitals that serve low and middle income populations in emerging markets are commonplace and are key components of efforts to achieve universal health coverage, strengthen health systems, and generate better patient and population health outcomes at a price affordable to people and society.

What is the proposed GHC mission?

- To provide a global knowledge exchange platform for information and technical support on evidence-based policy, data, research, and best practices that will help inform efforts to improve hospitals in emerging markets.

Who would the GHC serve?

- A diverse array of stakeholders engaged in the management of underserved secondary and tertiary hospitals, which usually have no access to advisory services. These include policymakers, investors, payers, suppliers, governance bodies, hospital managers, and clinical directors.

What the GHC could do—short term:

- Provide a technical overview of evidence and the experiences of hospitals in emerging markets.

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- Benchmark hospital performance, management practices and governance arrangements in a small subset of countries with the intent to assist stakeholders in determining a path toward improving efficiency, quality and coordination with other providers.
- Create a web-based knowledge clearinghouse on hospital relevant themes.
- Pilot tailored technical assistance to a small number of target countries.

What the GHC could do—long term:

- Establish practitioner-to-practitioner advisory services for hospitals or groups of hospitals.
- Develop a standardized data report system with accessible data on inputs, quality, outcomes and other performance measures.
- Launch synthesis briefs and innovations review series.
- Establish an operational research program.

Next Steps: What's needed to make the GHC a reality?

- A number of activities will support the development and launch the GHC, including: procurement of seed funding to support the development of a constitution and a web presence, and to hire a small staff; identification and establishment of physical premises; outreach to in-country stakeholders to develop the network; and production of key products as stated above.

I. Hospitals: The Center of Health Systems, the Periphery of Health Agendas

Hospitals are central to fostering healthy populations around the world. They serve as the first point of care for many people, offer access to specialized care, act as loci for medical education and research and set standards for national health systems at large. Despite their centrality, national policymakers and the development community have largely left off hospital policy and performance from global health agendas, opting instead to focus on the expansion of accessible primary care in developing countries

As a result, many hospitals in low- and middle-income countries have failed to evolve and modernize, both in operations and infrastructure, while the knowledge base on hospital effectiveness and efficiency remains small and inadequate. In turn, the standard of care and efficiency achieved by these hospitals has stagnated. The gap in treatment capacity and quality between wealthier and poorer countries – and between hospitals serving wealthier and poorer populations – is widening, just as emerging markets are poised to expand the range and depth of health care.

Basic care services are essential and too often insufficient in low- and middle-income countries, but high-quality primary care must be a complement rather than a substitute for functional, efficient, and accessible secondary and tertiary care, including hospitals. As low- and middle-income countries experience longer life expectancy and increasing burden of non-communicable disease, the number and proportion of critically ill individuals demanding and requiring more advanced inpatient care – surgeries, cancer treatment, and hospice care - will continue to increase.

What is a hospital?

Not all “hospitals” are the same. Hospitals’ roles and functions vary considerably across countries according to history, governance model, ownership and existing definitions or classifications of hospitals fail to capture all possible types^[1]. A ten-bed building without running water in a Siberian village, a district hospital near the outskirts of Nairobi, Kenya, and a major tertiary facility in Johannesburg, South Africa all qualify as hospitals—yet the range of services they provide are vastly different^[2]. In this report, a hospital is defined as a health care facility that provides inpatient health services with at least 10 beds and operates with continuous supervision of patients and delivery of medical care twenty-four hours a day, seven days a week^[3].

1. de Roodenbeke 2012
2. McKee and Healy 2002
3. WHO 2014; AHA 2014; de Roodenbeke 2012

Why Are Hospitals Important?

“Power cuts and water shortages in hospitals kill thousands of patients each year, and emergency operations on pregnant women are sometimes carried out by the light of torches made from burning grass. A decade ago, the UK government funded the construction of scores of new hospitals, but the Ugandan government neglected to staff them.” – *Murder in Uganda*, Helen Epstein¹

As in wealthier countries, hospitals in low- and middle-income countries are at the center of the health care universe and the most visible symbol of care for the sick, particularly in rapidly expanding urban areas. They are the destination for a huge share and broad range of health services – everything from childbirth to appendicitis and trauma to cancer – and they are essential to the care of critical illness and emergencies. The hospital is often the first stop for low- and middle-income country citizens when seeking resolution to a major illness episode, and the last stop for patients whose diagnostic and treatment needs cannot be met through primary care services alone.

According to a Pew Research Center survey, a median of **76%** people across six countries in sub-Saharan Africa say that **building and improving hospitals** and health care facilities should be a **priority for the national government**.

(Source: <http://bit.ly/1hulHyP>)

Beyond their role in diagnosis and treatment, hospitals often multitask as teaching institutions, centers of biomedical research, and testing grounds for pharmacological and technological innovations. They are major employers of health care professionals, and in small low- and middle-income countries a single hospital may account for a high proportion of the national health workforce.

Yet multiple mandates come at high cost, and hospital spending can overwhelm a health system if left unchecked. In low- and middle income countries, hospital spending often accounts for more than half of total health expenditure, and sometimes as much as 70% (WHO 2007). These funds are often drawn from public coffers, making it imperative that they are spent efficiently and equitably. Too frequently, hospital budgets are seen as fiscal “black holes” by policy-makers who cannot account for the end use of funds. In wealthy countries -- and in some populous middle-income countries -- hospitals have become big business, comprising ever-growing shares of national economies. In the U.S., for example, the hospital sector accounts for 5.6% of GDP – a larger portion than construction, agriculture, and automobile manufacturing combined.²

Still, hospital-centric systems are the common model for health care delivery and are likely to persist as low- and middle-income countries become wealthier. There will always be patients requiring advanced treatment or diagnostic services beyond those offered by primary care providers. As such, ensuring access to high-quality and affordable hospital services is a prerequisite for patients’ survival, long-term health, and protection against catastrophic health spending. Further, universal health coverage (UHC) cannot exist without an effective and affordable hospital system capable of addressing critical illness,

“Most private hospitals are moving towards tertiary care because it is most profitable. The private sector failed to provide equitable care.”

Hasbullah Thabrany, Center for Health Economics and Policy Studies at Universitas Indonesia

¹ <http://www.nybooks.com/articles/archives/2014/apr/03/murder-uganda/>

² http://www.columbia.edu/~kh2214/papers/Healthcare_IO_1_7_14.pdf

trauma, and specialist care. Understanding hospitals' impact on a country's health outcomes and financial position is thus a necessary starting point for any efforts to undertake health system improvements or reforms.

Quality Information on Hospitals is Rare

Data on hospital capacity, case mix, expenditure and performance is lacking, and in many cases simply nonexistent. For example, less than a third of low- and middle-income countries have data on average length of stay (ALOS); just 18% report hospital spending as a percent of total health expenditure; and only 13% provide data on bed occupancy rates.³ Indicators on hospital safety and outcomes – i.e. nosocomial infections, avoidable morbidity and mortality, and surgical complications – are even less commonly collected and almost never made publicly available. Most countries do not know how much is spent on hospitals, nor the distribution of inputs – such as services or interventions – purchased with those funds.

Systematic hospital research is rare, and what does exist is often purpose-built and proprietary. Donors and development banks have at times financed hospital upgrades, infrastructure, and management reform, but their support has been inconsistent and without an overarching strategy. Data collection and analysis has been similarly ad hoc, often responding to the immediate requirements of project preparation. Even in the few countries where high-quality data is regularly collected, it may not be shared or systematically applied to improve hospital performance. For example, Brazil conducts a regular facility survey, but the results are rarely used for further analysis or to inform policy changes.

“Afghanistan has made significant progress in increasing access to primary health care in the last decade... it's now the time to focus on improving secondary care and tertiary health care.”

Suraya Dalil, Afghan
Minister of Public Health

At the same time, analyses of hospital problems and innovations in OECD countries have not been systematically documented or distributed, limiting international learning from OECD experiences. The end result is that hospital policy in low- and middle-income countries lacks needed evidence, without necessary reference to global experience and best practices.

The absence of data and research prioritization on hospitals is a self-perpetuating problem. In the absence of good data, or pressure from external donors, country-level policy-makers face few incentives to improve hospital quality or efficiency. In turn, these institutions generate little demand for improved data collection. Finally, few researchers specialize in low- and middle-income country hospitals, creating a dearth of expertise and influence within donor and private organizations and universities – itself leading to a lack of funding and prioritization.

The CGD Hospitals for Health Working Group

The Center for Global Development (CGD) is a “think and do tank” that channels rigorous research into specific, practical policy proposals. CGD research focuses largely on global or crosscutting issues where

³ Cite background paper

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market failures or other systemic weaknesses have negatively affected the lives of the poor in low- and middle-income countries.

In this case, low- and middle-income countries have not yet been able to systematically modernize and upgrade their hospitals and improve on quality and efficiency; donors and international organizations have failed to constructively engage in a dialogue about the role, functions, and design of hospital facilities; and markets have not incentivized the production of global public goods related to hospitals. These failures should be of grave concern to the international community: UHC has been widely proposed as a core component of the post-2015 United Nations (UN) Development Agenda yet cannot be achieved without increased attention to the essential role of hospital services within health delivery systems and ultimately in meeting population health needs.

CGD convened the Hospitals for Health Working Group to examine the root causes of these failures and offer specific policy proposals in response. These problems are global and systemic, crossing borders, the public, private, and non-profit sectors, and global, national, and local governance systems. Donors, development banks, and multilateral institutions – CGD’s primary audiences – must play a central role in addressing the present situation. Private sector investors, producers and providers also need to be engaged beyond their product lines to address widespread hospital performance issues.

“A collaborative to bring together buyers and sellers is needed in the health industry; without it, hospital managers have had to rely on the “I know a guy” model to access knowledge for improvement.”

Steven Thompson, Johns Hopkins Medicine International

We view hospitals as critical to the continued development of the emerging economies, and an opportunity for concerted global action and knowledge sharing. The Working Group has drawn upon a broad range of expertise from global leaders in hospital management, health and hospital policy, and health economics. Through this report, we aim to galvanize renewed attention and prioritization to hospital performance, leading to a more sensible, evidence-based, and coordinated international response.

II. The Tragedy of Neglect: Performance Gaps in Hospital Care

Years of global neglect have taken their toll on emerging market hospitals. All too often, desperate patients in low- and middle-income countries arrive at a facility that is inefficient, unsafe, unaffordable, unaccountable, and/or operating in isolation from other components of the health system.

Hospitals must be understood in terms of their role within, and contribution to, the broader health delivery system. Whereas OECD hospitals once primarily offered episodic care for acute illness and injuries, advances in medical treatment and technology coupled with the growing burden of chronic disease have contributed to an evolution in how services are delivered. Increasingly, hospitals in high-income countries are providing a greater share of services through ambulatory care or scheduled preventative surgeries – all while coordinating with other providers along the continuum of care. At the same time, some countries are experimenting with innovative financing mechanisms such as global budgets, pay-for-performance mechanisms and capitation to help align incentives between patients, general practitioners, and hospitals, with the aim of achieving better health outcomes at lower cost. Meanwhile, a subset of mostly middle income countries are testing payment mechanisms such as diagnostic related groups (DRGs) to raise hospital efficiency.

Most governments, however, have struggled to maintain hospitals that keep up with their populations' changing epidemiology and expectations. This challenge is particularly acute in low- and middle-income countries, where the public sector is ill equipped to spearhead the radical reforms necessary to adapt to the evolving context. These governments lack necessary expertise, information, and resources to effectively oversee, manage and regulate the hospital sector. Low- and middle-income country hospitals thus largely operate within an accountability vacuum (Box 1).

Box 1: Emerging Market Hospitals in the Headlines, 2013⁴

- “Hanoi doctors to re-operate boy suffering from bladder removal by surgical mistake.”
- “In Violent Hospitals, China's Doctors Can Become Patients.”
- “Los errores hospitalarios, más peligrosos que las carreteras.”
- “[Uganda] Hospitals Are Death Traps, Report Says.”
- “India baby deaths spark Calcutta hospital negligence row.”
- “Dr. Death? Brazilian doctor killed patients to free up hospital beds.”

Gaps in High-Level Planning and Strategy

At the root of the problem is the absence of high-level strategic thinking about the role, structure, distribution, and organization of hospitals within low- and middle-income country health systems.

⁴ <http://www.saigon-gpdaily.com.vn/Health/2013/6/105315/>
<http://www.npr.org/blogs/parallels/2013/11/06/242344329/in-violent-hospitals-chinas-doctors-can-become-patients>
<http://www.farodevigo.es/gran-vigo/2012/10/12/errores-hospitalarios-peligrosos-carreteras/695370.html>
<http://www.monitor.co.ug/News/National/Hospitals-are-death-traps--report-says-/688334/1687010/-/57f2eoz/-/index.html>
<http://www.bbc.co.uk/news/world-asia-india-24000951>
<http://latino.foxnews.com/latino/news/2013/03/28/doctor-death-brazilian-doctor-killed-patients-to-free-up-hospital-beds-police/>

Without a big picture vision for their development and evolution, most emerging market hospitals are stuck on autopilot, operating under antiquated models and decaying infrastructure.

While no precise data exists regarding the exact distribution of development assistance for health (DAH), the Institute for Health Metrics and Evaluation estimates that in 2010, only 5.3% of allocable DAH was spent on health sector strengthening⁵ – and it’s safe to assume that only a small portion of that amount was spent on hospitals. USAID’s Global Health Strategic Framework mentions the word ‘hospital’ only 3 times within 43 pages⁶, while hospitals are completely missing in action within the UK government’s 2011-2015 global health outcomes framework.⁷ Even where donors do address hospital issues, their support may be limited to specific components. For example, the World Bank claims a comparative advantage in infrastructure development, health sector financing, and governance, but notes its limited expertise in stewardship of the health sector (i.e. regulation, oversight, and strategic planning), hospital management, and micro-level human resource policy.⁸

“There are currently limited incentives to improve quality care. For example, accreditation began in Brazil in 1999, but only 3% of hospitals are accredited. It’s often too expensive for hospitals to do this, so only elite private hospitals become accredited.”

Laura Schiesari, Hospital Sírío-Libanês, Brazil

At the country level, hospital construction, modernization and integration has not kept pace with demand. Poor access to capital in emerging economies limits the construction of major facilities, as does the general perception among policy-makers – reinforced by donors – that hospitals are a relatively low priority. Existing individual facilities often lack budgetary authority to modernize and invest in new equipment (discussed in more detail below), or face limited incentives to do so. The neglect is particularly acute in the oft-overlooked secondary hospitals, despite their essential role in improving maternal and child health. And narrow thinking about hospital policy leads to hospitals that operate in isolation within a fragmented health sector, without due regard to hospitals’ strategic niche and appropriate scope.

A Changing Disease Burden and the Changing Role of Hospitals

Non-communicable diseases (NCDs) especially cancer, cardiovascular disease, and chronic conditions such as diabetes have eclipsed communicable diseases. Even across Africa, cancer now claims more lives than AIDS, TB and malaria combined. Emerging market hospitals remain ill-equipped to manage the burgeoning demands of NCDs. This new reality requires a paradigm shift in how health systems approach treatment and continuity of care, and how they coordinate *all* providers to address prevention.

⁵ Among DAH that could be assigned to a specific category. See IHME Financing Global Health 2012

⁶ http://www.usaid.gov/sites/default/files/documents/1864/gh_framework2012.pdf (including the first annex of strategic goals but not the other appendices)

⁷ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/67578/health-is-global.pdf

⁸ <http://www->

wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/09/21/000310607_20070921140425/Rendered/PDF/409280PAPER0He101OFFICIALOUSE0ONLY1.pdf

The paradigm shift is challenging the traditional role of hospitals – still dominant in most emerging markets – which tends to focus on acute, episodic care, provided in disease-specific silos, and often isolated from the broader delivery system and communities. “People-centered” and “coordinated” care delivery models are emerging in high-income countries, seeking greater linkages between hospitals and delivery systems to facilitate chronic disease and population health management. In some cases, the new delivery models involve the devolution of care from hospitals to ambulatory centers. In emerging markets, the evidence base and knowhow for planning and implementing this shift is often lacking.

Health care in emerging markets can no longer address one disease at a time. It is imperative that they adopt systems approach, acknowledging that hospitals’ must be integrated into service delivery systems; that care should be managed across a continuum of services and facilities; that evidence must drive policy and investment; and that cost containment and quality of care are relevant in all countries. Emerging market countries have yet to tackle this agenda.

Deficiencies in Hospital Governance

As a result of policy-level disengagement, emerging market hospitals operate in an environment of weak or non-existent governance. National and local governments may set formal regulations but have limited capacity and resources to ensure compliance; nor do they typically demand and review data to monitor hospital performance. Voluntary accreditation systems are also rare. Even where they exist, few hospitals participate. As a result, substandard facilities face little external financial or regulatory pressure to increase efficiency and improve the quality of care.

The lack of effective and proactive governance structures represents a missed opportunity to improve hospital performance. For example, a substantial body of evidence suggests that increased financial and managerial autonomy can drive sizable improvements in the efficiency and quality of hospital services (Bogue et al. 2007; Harding and Preker 2003) – but only when accompanied by strong accountability mechanisms (Wagstaff and Bales 2012; World Bank 2011) and robust oversight practices (Harding and Preker 2003; Puret et al. 2012; Ramesh 2008). In countries such as China (World Bank 2011), Vietnam (Wagstaff and Bales 2012; World Bank 2011), and Senegal (Puret et al. 2012), poorly governed experiments with greater hospital autonomy resulted in higher costs, catastrophic out-of-pocket spending, and perverse incentives for overtreatment. In contrast, excellent performance at autonomous public hospitals in Brazil was credited to careful performance management by a state government, including performance-based purchasing mechanisms, well-monitored and enforced contracts, and a focus on data and information systems (La Forgia and Couttolenc, 2008).

Challenges in Hospital Management, Finance, and Operations

Without strong governance and accountability mechanisms, hospital performance largely depends on facility-level managers. Yet these managers typically do not have the authority, incentives, capacity, and knowledge to improve.

Hospital management is a complex and difficult task under the best of circumstances, but can be even more trying in low- and middle-income countries, and particularly in public hospitals. In many cases, public-sector hospital managers hold little control over financial decision-making and human resource

policy. Budgeting and procurement are frequently handled within ministries of health (often poorly), and hospital managers have minimal influence over the process. When the staff is composed of professional civil servants employed by the government, managers have little control over staff hiring, remuneration, and discipline. Physicians, nurses and administrators become accountable to ministries rather than the hospital, the community or patients. As the distance between provider and employer becomes increasingly long, real accountability disappears and managers become unable to motivate better performance from hospital staff (Lewis and Pattersson 2009).

Often, hospitals' financial incentives are misaligned. While a few countries are pioneering innovative payment systems, most public hospitals in emerging economies are still financed by traditional line-item budgets. Budget-based financing does theoretically force managers to cap spending – at least from the public purse. But cost containment in the absence of performance incentives is most likely achieved by indiscriminate cutbacks rather than increased productive efficiency. At the other extreme, private hospitals overwhelmingly operate under fee-for-service models. This could potentially lead to high quality treatment – but only for the elite few who can afford the spiralling cost of care. (Schneider 2007; Wagstaff and Moreno Serra 2010).

Finally, despite their many differences, public and private sector managers face a shared disincentive to collect and apply rigorous data on costs and efficiency. Public sector managers and their respective facilities are seldom rewarded for prudent fiscal management, and their governments rarely demand detailed reports on where the money goes. In the fee-for-service private sector, financial incentives run directly counter to efficiency objectives. Providers there are financially compensated for inefficient treatment and directly benefit from additional tests, drugs and procedures. As costs are borne by the patients, there is little need for them to be systematically measured and controlled. As a result, almost no data exists on hospital spending or costs in low- and middle-income countries.

We know from anecdotal evidence that management and financial reforms can substantially improve facility performance and efficiency. In Brazil, an experiment to contract out service delivery at 17 Sao Paulo hospitals resulted in facilities that were more efficient, less costly, and safer than their traditional counterparts (see La Forgia and Coutolenc, 2008 for a detailed analysis of the experience in São Paulo, Brazil). In US and UK hospitals, improved management practice led to significant reductions in mortality and corresponding gains in patient satisfaction (Bloom et al 2011). Comparative research from Argentina, Brazil, Colombia and Mexico has shown that greater managerial autonomy is linked to gains in production, efficiency, and quality (Bogue et al 2007). And in Lesotho, a partnership between the government and the private sector has led to much higher quality of care and better patient outcomes – albeit at a higher cost to government (Jack et al 2013).

These experiences can be instructive for other low- and middle-income countries, as can the many successful hospital reforms that were never systematically documented. But in order to learn from others' success, hospital-related data and research must be more common, more rigorous, and more freely available.

Some global health funders have made significant investments to support hospitals (see Box 2). They mobilize and assist in the establishment of the much-needed secondary and tertiary hospitals. In Afghanistan, many well-intentioned parties form public-private partnerships (PPPs) with the Ministry of

Public Health to build hospitals; over the last decade, several facilities have been built across the country, and as of late 2014, up to ten PPPs are in the pipeline. Yet too often the donor efforts end there. Only once the buildings are built do people realize that the country does not have the capacity to run the facilities, and the hospitals quickly slide into disuse and disrepair. With no viable options at home, thousands of Afghans turn abroad seeking high-quality care in countries like India, draining \$285 million from the Afghan economy each year.⁹ Such missed opportunities could be avoided if the donors and ministries collaborated early on to ensure that all facility construction was accompanied by the requisite long-term human resource and financial planning.

Box 2: How are donors supporting hospitals?

⁹ Government of the Islamic Republic of Afghanistan, Ministry of Public Health. 2013. Afghanistan National Health Accounts 2011-2012.

Examples:

Partners in Health:

Partners in Health (PIH) is a non-profit organization that provides health care to individuals in low-income countries (primarily in rural Haiti and Africa) by establishing and managing hospitals, health centers, and a network of frontline public health workers.^[6] PIH's clinics and hospitals provide access to services including malaria treatment, HIV/AIDS treatment and prevention, tuberculosis treatment and other services^[7]. PIH built and operates L'hôpital Universitaire de Mirebalais (University Hospital) in Haiti—a 300 bed hospital with six operating rooms, a neonatal intensive care unit and a CT scanner^[8]. In Rwanda, PIH has helped build and operate Butaro Hospital, a 150 bed facility build as part of a collaboration with the Government, opened in 2011 and is home to the first comprehensive cancer facility in East Africa^{[9][10]}. Similarly, PIH's work in Malawi operates Neno Rural Hospital and ten other rural health centers, serving over 100,000 people^[11]. In Lesotho, PIH works in close collaboration with the Ministry of Health to operate and support the National DR-TB Referral Hospital. Additionally, PIH supports the MOH's efforts at seven district hospitals and 62 health centers through the fully integrated Primary Health Care Program.

International Finance Corporation:

Addressing the regulatory, financing, and implementation constraints of health is one of the International Finance Corporation IFC's five strategic priorities^[1]. Between 1998 and 2013 the IFC provided over \$1.9 billion in commitments for health services, and over \$2.7 billion in commitments for health and life sciences^[2]. In this same time period, the IFC has provided commitments to 77 health care companies in low-and middle-income countries. As of 2007 most significant type of investment financed by the IFC was hospitals—with projects concentrated in three regions: Asia, Latin America and the Caribbean, and Europe and Central Asia^[3]. More recently, the IFC has made available a \$1 billion fund for provision of health care in Africa^[4]. IFC differentiates itself from other partners by its global industry expertise, including adding value through experience in emerging markets with in-house health specialists, a wide variety of financing options (including, equity, debt, and structured finance), and longer time horizons than other financial investors^[5].

1. <http://siteresources.worldbank.org/EXTWBASSHEANUTPOP/Resources/chap5.pdf>
2. <http://www.ifc.org/wps/wcm/connect/371fad804e4a94708c54ac7a9dd66321/Summary+of+IFC+Investments+HealthCare+2013.pdf?MOD=AJPERES>
3. <http://siteresources.worldbank.org/EXTWBASSHEANUTPOP/Resources/chap5.pdf>
4. <http://www.theeastafrican.co.ke/news/EA-spends-most-of-IFC--1bn-fund-for-health-care-in-Africa/-/2558/2235846/-/6j7245z/-/index.html>
5. http://www.pwc.com/es_MX/mx/post-eventos/archivo/2014-04-ifc.pdf
6. <http://www.givewell.org/international/charities/PIH>
7. <http://www.givewell.org/international/charities/PIH>
8. <http://www.tampabay.com/opinion/essays/new-hospital-in-haiti-proves-that-aid-done-right-can-change-lives/2132969>
9. <http://www.pih.org/blog/rwanda-to-open-first-comprehensive-cancer-center-in-rural-east-africa>
10. <http://www.pih.org/blog/rwandas-butaro-hospital-opens-its-doors>
11. <http://ghcorps.org/partners/our-partners/our-placement-organizations/partners-in-health/>

Patients Pay the Price

Ultimately, it is patients who pay the price for systemic failures in the hospital system. In emerging economies, hospital bills often include catastrophic out-of-pocket spending; poor patient experiences; and preventable morbidity and deaths. A visit to the hospital can spell financial ruin for the poor. In India, for example, it has been estimated that hospitalized patients spend 58% of their annual household income on out-of-pocket medical expenses, and that a quarter of hospital patients fall into poverty as a result of their medical bills.¹⁰ In Thailand, despite the recent expansion of universal health coverage, a hospital visit almost doubles the risk that a household will incur catastrophic health spending.¹¹ And in 14 of 15 countries in Sub-Saharan African countries, total out-of-pocket expenses for inpatient care exceeded those incurred by outpatients – sometimes by a factor of 4 to 1 (Kenya).¹²

“The use of hospitals by patients rises with economic gains. People will use health services if they are available, but often they not affordable.”

Narottam Puri, Fortis Healthcare Limited

While few studies have systematically examined patient perceptions of low- and middle-income country hospitals, many have noted patients’ distrust in public facilities and their tendency to go abroad in search of high quality care. The few studies that do directly investigate patient attitudes tend to find significant dissatisfaction related to waiting times, hygiene/cleanliness, staff attitudes, and the perceived quality of care. In many cases, negative patient perceptions can become a barrier to health service utilization. For example, one qualitative study of pediatric wards in Tanzania’s district hospitals found that delays in bringing ill children to a facility were in part driven by mothers’ fears of unsanitary hospital conditions.¹³

Box 3: Selected Vignettes on Preventable Complications in Emerging Market Hospitals¹⁴

¹⁰ file:///Users/rsilverman09/Downloads/multi0page.pdf

¹¹ <http://content.healthaffairs.org/content/28/3/w467.long>

¹² <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2649544/#!po=44.1176>

¹³ <http://trstmh.oxfordjournals.org/content/102/8/805.long>

¹⁴ <http://www.bmj.com/content/344/bmj.e832>

“A 20 year old woman who was four months pregnant and had had recent outpatient treatment for malaria was admitted to hospital with symptomatic anemia and palpable splenomegaly. There was a delay in reporting of her low hemoglobin concentration and her condition deteriorated, requiring urgent transfusion. This was performed without blood grouping or cross matching. The patient died soon after from transfusion reaction.”

“A 34 year old patient developed tetanus after a previous admission to a local hospital with traumatic frontal head injury, without assessment of tetanus status or immunization. The patient died from tetanus and its complications.”

“A 50 year old woman with diabetes was readmitted two days after discharge after laparoscopic cholecystectomy. Biliary peritonitis was diagnosed and she was transferred to intensive care. She died some days later.”

While poor patient satisfaction is undesirable, the most severe hospital failures are those that result in preventable patient morbidity and mortality. Unfortunately, many hospitals in emerging market countries are poorly equipped to handle patients’ emergencies and serious illness. A 2001 Lancet study of 21 hospitals in seven less-developed countries found that two-thirds “lacked an adequate system for triage,” and that “adverse factors in case management, including inadequate assessment, inappropriate treatment, and inadequate monitoring occurred in 76% of inpatient children.” Many of the hospitals were missing essential supplies, and the vast majority of doctors in district hospitals did not have adequate knowledge to treat conditions such as pneumonia, malnutrition, and hypoglycemia.¹⁵

“We need to tackle the issue of scalability. The problem facing hospitals is bigger than any one institution.”

Steven Thompson, Johns Hopkins Medicine International

At times, hospital care can harm the very people it is meant to help. Nosocomial complications are common in wealthy and emerging market hospitals alike, but have reached crisis levels in many low- and middle-income countries. Recent estimates suggest that 22.6 million DALYs are lost each year to unsafe hospital care, and two-thirds of that burden occurs in low- and middle-income countries.¹⁶ Likewise, a 2012 BMJ study of 26 hospitals in eight emerging economies (Egypt, Jordan, Kenya, Morocco, Tunisia, Sudan, South Africa and Yemen) found that 8.2% of all patients experienced at least one complication, of which 83% were preventable and 34% resulted from “therapeutic errors in relatively non-complex clinical situations” (see Box 3 for selected vignettes, and Figure 1 for country-level variation in the frequency of preventable complications). The observed adverse events ranged from minor issues to major complications: while 32% of patients recovered in under a month, 14% of adverse events resulted in permanent disability, and 30% contributed to the death of the patient. Put differently, 1 in 50 patients entering these hospitals died as a result of preventable complications – a rate of roughly one preventable death per day per facility.¹⁷ Yet preventable complication rates vary significantly by country (Table 3),¹⁸ as do observable dimensions of hospital quality.¹⁹ This suggests that even resource-limited

¹⁵ <http://www.sciencedirect.com/science/article/pii/S014067360003542X>

¹⁶ <http://qualitysafety.bmj.com/content/22/10/809.full>

¹⁷ <http://www.bmj.com/content/344/bmj.e832>

¹⁸ <http://www.bmj.com/content/344/bmj.e832>

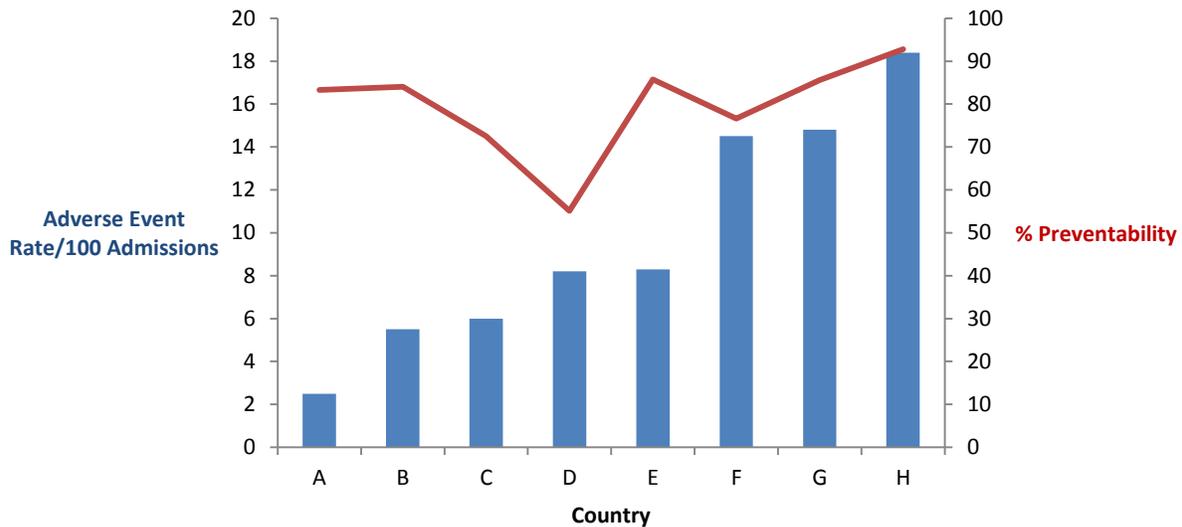
settings can see substantial improvement in hospital outcomes if the right policies and incentives are put in place.

Is There an Advisor in the House?

Currently, few publicly available resources exist to help emerging market hospitals move past the status quo. While many institutions work on hospital-related issues in some capacity, policymakers, investors, and hospital managers still often struggle to identify and access timely and relevant guidance on improving hospital performance. In wealthy countries, this problem is largely managed through a cornucopia of hospital associations and a heavy reliance on consulting firms such as McKinsey or the Advisory Board. Indeed many programs, initiatives, and partnerships already exist with the intent of improving aspects of hospital quality and performance (please see [Annex 1](#)).

“This is a space that has lots of players, but the problem persists. Knowledge products are important, but having practical experience solving problems in limited resource settings is also needed.”

Figure 1: Variation in the Rates of Adverse Events and Mortality in Hospitals among Eight Emerging Economies (Egypt, Jordan, Kenya, Morocco, Tunisia, Sudan, South Africa and Yemen)²⁰



However, with the exception of some elite facilities, most emerging country hospitals cannot afford advisory services from consulting firms, are not affiliated with relevant networks or associations, and do not participate in international meetings or conferences on hospital issues. While they can occasionally access technical guidance from international consultants or donor agencies/development banks, this support is unpredictable and ad hoc. Missing from the health care ecosystem is a ‘one-stop shop’ for producing, compiling, and sharing essential knowledge about what works in hospitals.

¹⁹ <http://www.sciencedirect.com/science/article/pii/S014067360003542X>

²⁰ <http://www.bmj.com/content/344/bmj.e832>

III. Closing the Knowledge and Performance Gap: How Can the Global Hospital Collaborative Help?

In the face of rapid demographic, epidemiological, and economic transitions, the global community must actively engage to develop and implement a more strategic view of hospitals' role as a component of health production. The shifting burden of disease toward non-communicable and chronic conditions is widely recognized, indicating the increasing importance but shifting role of hospitals in low- and middle-income countries. There exists an urgent need for a paradigm shift toward a more flexible model of care, including satellite clinics, diagnostic centers, therapeutic services, long-term care, and integrating with primary providers and social services.

We know gains in hospital performance are possible – but more effective information gathering, evidence generation, and knowledge sharing are needed to harvest unrealized potential. We have the opportunity to form a strategic global engagement around hospital issues in emerging economies.

Donors, technical agencies, and country governments must acknowledge that demand for hospital care is increasing and respond appropriately. Private investors are already seizing upon the opportunity to target health care markets outside of wealthy countries, and private insurance coverage is expanding in low- and middle-income countries. These can and should be positive developments that improve population health, but for the most part emerging economies are ill equipped to adapt to these changes. The public sector is lagging in its adaptation to the new environment and is often unprepared to compete with private providers.

In sum, governments and donor agencies are *reacting* to changes in the health sector; going forward, they must *lead and guide* hospitals' evolution in line with a comprehensive long-term strategy for health systems development.

Recommendations for Action

While governments, investors, suppliers, and agencies can take independent action to improve efficiency and performance, there is still unmet need for multi-stakeholder forums to generate, broker, and exchange knowledge. To address this gap, the Working Group offers two recommendations:

1. **Support local efforts directly.** Donors, development banks, technical agencies, country governments, private health care organizations and investors in hospital services should strengthen ongoing efforts to collect, monitor, and analyze hospital data; to benchmark performance; and to foster stronger coordination with other providers. Donors and

Mexico's Funsalud

Mexico's Funsalud (the Mexican Health Foundation) has developed the design of a project on comparative analysis of hospital performance with the support of the Ministry of Health. The project compares indicators across hospitals with similar levels of complexity and other characteristics (such as, the number of hospital beds, number of hospitalizations, etc.) and intends to give awards of excellence. Similar constructs could be created on the international and national levels to identify best performing hospitals and share their processes.

Source: Author contact

development banks should consider devoting greater financial and technical assistance resources to hospital strengthening in the context of overall health sector development.

2. **Create a collective platform.** Global health donors, multilateral institutions and private industry should support a collective organizational platform and infrastructure – the Global Hospital Collaborative. The Collaborative should foster commitment to a set of knowledge-related public goods with the goal of promoting improved hospital performance and the integration of hospitals into the health delivery system.

In the remainder of this section, we describe how the proposed Collaborative could address existing knowledge and performance gaps, helping hospitals fulfill their potential as a core contributor to population health.

Why the Global Hospital Collaborative? Mission and Structure

The mission of the Collaborative would be **to provide a global knowledge exchange platform for information and technical support on evidence-based policy, relevant data and research, and best practices that will help inform efforts to improve hospitals in emerging markets.** The Collaborative would focus on underserved secondary and tertiary facilities and their role in producing population health. The Collaborative’s clients could include a diverse array of stakeholders within those hospitals and the broader health sector, including policymakers, investors, payers, suppliers, governance bodies, hospital managers, and clinical directors. It would assist its clients in overcoming existing barriers to accessing knowledge and advice, with the goal of improving hospitals’ performance and facilitating their effective integration into the broader health services delivery system.

To do so, the Collaborative would have a two-pronged functional focus (Table 3). First, it would address macro-level problems affecting the external policy, institutional, and investment environment. Second, it would assist hospitals at the facility-level with reforming their internal governance, management, and service provision strategies.

The organizational structure of the Collaborative could take many forms depending on client demand and interest among partner institutions. However, the Collaborative’s legitimacy would depend upon its perceived independence—both organizationally and financially. It is thus the Working Group’s opinion that the standalone model, i.e., a new entity with an independent board of directors, is the most appropriate governance model for the Collaborative. The Collaborative could potentially be hosted by another institution and/or operated in concert with a broader partnership, but should remain as a standalone model within the partnership.

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Table 3: Functional Areas Addressed by the Collaborative

Focus Area 1: Macro-Level Environment	Focus Area 2: Micro-Level Operations
<ul style="list-style-type: none"> • Hospital payment mechanisms • Payer purchasing strategies • External governance arrangements • Data and information environment • Quality improvement and monitoring architecture • Regulatory environment • Hospital rationalization, substitution, and dimensioning • Capital financing, planning, and investment strategies • Integration or care coordination processes, especially with ambulatory providers 	<ul style="list-style-type: none"> • Decision-making authority and leadership • Strategies and methods for improving quality, patient safety, patient experience, efficiency and productivity improvement • Performance measurement, review and use • Essential management functions (HR, IT, financial, supply chain, etc.)

What Would The Hospital Collaborative Do? Core Functions

The Collaborative would facilitate a united network of individual and institutions dedicated to fostering improved policymaking, investment, and management for emerging market hospitals. It would act as a “doorway” organization to hospital-related expertise, brokering interactive knowledge sharing and partnership among hospitals facing similar challenges. It would target hospitals that are underserved by existing institutions.

The Collaborative would offer two work-streams (Table 4). First, it would directly provide publicly available knowledge products to all interested stakeholders. These services and products would primarily aim to build an accessible foundation on hospital-related issues by compiling and synthesizing data, evidence, and best practice. Products and services under this work-stream could include a data repository, discussion paper series, educational conferences and webinars, a database for hospital-related technical expertise, and a ‘twinning’ service to connect hospitals facing similar challenges. The Collaborative’s overarching goal under this work-stream would be to become a ‘one-stop-shop’ for promoting evidence-based policy, finding relevant data and research, and accessing best practice evidence – that is, a forum for connecting the evidence with the people who need it.

“A hospital collaborative should offer knowledge and facilitation to underserved or underrepresented hospitals to improve their performance.”

Juan Pablo Uribe,
Fundación Santa Fe de Bogotá

Box 4: Potential Products

Short term:

- Technical overview of evidence and experience of hospitals in emerging markets and developing countries.
- Benchmark hospital performance, management practices and governance arrangements in a small subset of countries with the intent to assist stakeholders determine a path toward improving efficiency, quality and coordination with other providers.
- Create a web-based knowledge clearinghouse on hospital relevant themes.
- Pilot tailored technical assistance to a small number of target countries.

Long term:

- Establish practitioner-to-practitioner advisory services for hospitals or groups of hospitals.
- Development of a standardized data report systems with accessible data on inputs, quality, outcomes and other performance measures.
- Launch synthesis briefs and innovations review series.
- Establish an operational research program.

The Collaborative’s second work-stream would offer tailored, on-demand assistance to individual countries or facilities. Assistance would include knowledge generation (i.e., diagnostic surveys and operational research) and technical support (i.e., strategic planning and help implementing a performance-monitoring framework). Based on country demand, the Collaborative could broker practitioner-to-practitioner technical assistance; undertake high quality operational research, diagnostics, and performance benchmarking; and leverage state-of-the-art management techniques and technologies to improve internal processes and system-wide integration. In addition to benchmarking and other comparative exercises to evaluate hospital performance, the Collaborative would help formulate pragmatic, organizational ‘next steps’ to improve on priority indicators.

Table 4: Potential Service Areas and Products

Work-Stream 1: Public Goods	Work-Stream 2: Tailored Assistance
<ul style="list-style-type: none"> • Knowledge clearinghouse • Data repository • Hospital twinning/match service • Forum newsletter • Synthesis briefs and Innovations’ reviews • Conferences and webinars • Technical assistance database • Discussion paper series • Case studies on performance excellence (‘featured hospitals’) 	<ul style="list-style-type: none"> • Diagnostic surveys • Strategic planning • Operational research • Technical assistance on specific areas (e.g., management, performance monitoring, etc.) • Practitioner-to-practitioner knowledge exchange • Data measurement and analysis • In-country forums

Getting the Hospital Collaborative Up and Running: Financing, Roll Out, and Engagement

The Hospital Collaborative could be financed by a mix of grants, membership dues, and revenue generating activities such as tailored technical assistance and conferences. To get started, it would require incubation and seed money to draft a constitution; build a web presence; secure physical premises; hire staff; reach out to in-country stakeholders (e.g., policy makers, hospital associations, accreditation and quality improvement agencies) and begin producing key products. Later on, the Collaborative could transition to a more diverse financial support base that will be less dependent on donors, and ultimately self-sufficient. Membership fees would be modest and proportionate to facility size and resources; the Collaborative could also offer group or national memberships, for example all district hospitals within a particular region.

A first priority would be to forge strategic partnerships with a small subset of countries and demonstrate rapid impact. While gradually building out the “public good” work-stream and resources, it could begin pilots of its tailored technical assistance to a small number of target countries. The Collaborative would deploy a wide range of tactics to attract membership and demand in target countries, including linkages with in-country hospital associations; partnerships with accreditation organizations as well as provincial and district health secretariats; and endorsements from development banks and other stakeholders. Together, these strategies should generate sufficient interest to begin pilots, allowing the Collaborative to demonstrate its value and secure interest from a broader set of potential clients.

Hospitals for Health Working Group

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Gary L. Filerman, Ph.D. is recognized as one the most influential architects of the profession of health services administration. He was the first CEO of the Association of University Programs in Health Administration (AUPHA), founding executive of the Commission on Accreditation of Healthcare Management Education, founding editor of the *Journal of Health Administration Education* and a founder of the Health Administration Press. He has been a consultant or program evaluator to more than 135 governments, colleges and universities in 39 countries. Dr. Filerman has served as interim chairman and professor of health policy and administration at the George Washington University and as chairman and professor of health services administration and of international health at Georgetown University. He was an OAS Fellow, Guest Scholar at The Brookings Institution, associate director of the Pew Commission on the Future of the Health Professions, consultant to the World Bank and to the International Finance Corporation, senior advisor at the Academy for Educational Development,

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Frédéric Goyet is a medical doctor, public health specialist from the French ministry of health. He is currently adviser for the international strategy with the general manager of the GIP ESTHER, the French public body for bilateral cooperation in HIV / AIDS and health, which operates mainly through

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hospital partnerships. Frederic started his career as a physician in rural Ethiopia, in the Sudan and in Cambodia for humanitarian organizations. In France he managed a network of health professionals involved in care for persons living with HIV, near Paris. He then joined the French ministry of health, working in a County as Public health inspector, in charge of prevention and care programs for HIV/AIDS, health care for prisoners and most vulnerable populations. He has been seconded to the Ministry of foreign affairs since 2001, first as HIV/AIDS adviser and then as Head of the health office in the general directorate for development. From 2008 to 2010 he was seconded to the European commission, Development cooperation Directorate, as adviser for HIV/AIDS, access to medicine and relations with the Global fund to fight AIDS, TB and malaria.

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Joseph Ichter, is Senior Technical Advisor for Public Private Partnership with the Futures Group International. Joe has over 20 years experience in health care delivery, access to care for the poor and underserved and building capacities through public/private partnerships to solve community challenges. Currently he is assigned to the Afghanistan Health Policy Project, working between Washington DC and Kabul, Afghanistan on the establishment of PPP hospitals. Prior to this work, Dr. Ichter was an Assistant Professor of Family Medicine at Oregon Health Sciences University and spent the majority of his career with the University of New Mexico, Department of Family and Community Medicine. He also spent several years living and working in the Eastern Caribbean region, on issues of health system reform and the integration of medical students with pertinent community-based participatory research. Joe earned a Doctorate degree in Public Health and a Masters Degree in Health Care Administration from the University of North Carolina Gillings School of Global Health and a Bachelor's degree in Economics from the University of North Carolina. He is a member of the CORE Group Board, Secretary to the Board of Project Access Northwest and is an appointed member of the Oregon Public Health Advisory Board.

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Mead Over is a senior fellow at the Center for Global Development researching economics of efficient, effective, and cost-effective health interventions in developing countries. Much of his work since 1987, first at the World Bank and now at the CGD, is on the economics of the AIDS epidemic. After work on the economic impact of the AIDS epidemic and on cost-effective interventions, he co-authored the Bank's first comprehensive treatment of the economics of AIDS in the book, *Confronting AIDS: Public Priorities for a Global Epidemic* (1997, 1999). His most recent book is *Achieving an AIDS Transition: Preventing Infections to Sustain Treatment* (2011) in which he offers options, for donors, recipients, activists and other participants in the fight against HIV, to reverse the trend in the epidemic through better prevention. His previous publications include *The Economics of Effective AIDS Treatment: Evaluating Policy Options for Thailand* (2006). Other papers examine the economics of preventing and of treating malaria. In addition to ongoing work on the determinants of adherence to AIDS treatment in poor countries, he is working on optimal pricing of health care services at the periphery, on the measurement and explanation of the efficiency of health service delivery in poor countries and on optimal interventions to control a global influenza pandemic.

Giota Panopoulou is currently an advisor to the Vice Minister of Health Sector Integration and Development at the Mexican Ministry of Health. Prior to her work at the Ministry of Health, she worked as an advisor to the Finance Director of the Mexican Social Security Institute, a Director of Health and Economic Development at the Mexican Ministry of Health, as well as an Economist and Long-term Consultant in the World Bank, at the Human Development Groups of the Europe and Central Asia Region, Latin America and the Caribbean Region, and East Asia and Pacific Region. The areas of her expertise are health financing, health insurance, health care benefit plans with emphasis on drugs, public sector institutional restructuring, and design, implementation and evaluation of health reforms. She holds a PhD in Economics from the University of Sussex (UK) and an MSc. in Economics for Development from the University of Oxford (UK).

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Joseph Rhatigan, MD, Associate Chief of the Division of Global Health Equity and is the director of the Hiatt Global Health Equity Residency Program. Dr. Rhatigan graduated from Harvard Medical School and completed his residency in Internal Medicine at Brigham and Women's Hospital, where he practices hospital medicine. He has held a number of leadership positions in post graduate medical education. As one of the key faculty members of the Harvard Global Health Delivery Project, he examines the delivery

of health services in low-resource settings through case studies. He is one of the co-directors of Harvard's summer program in Global Health Effectiveness and an Assistant Professor at Harvard Medical School and the Harvard School of Public Health.

Eric de Roodenbeke assumed the position of Chief Executive Officer of the International Hospital Federation in June 2008. Between July 2007 and May 2008 he was Senior Health Specialist at the World Health Organization (WHO) for the Global Health Workforce Alliance (GHWA) during which time he was involved in support country action programmes to develop a response to the HRH crisis; development of strategies for regional networks in support of HRH development and was the focal point for follow-up actions in Francophone countries. He was Senior Health Specialist at the World Bank (AFTH2 & WBI) from 2004 to 2006 in which time he was Team leader (TL) for various health intervention, educational, management and capacity building programmes mostly in Africa. He was Director of the 700-bed facility part of Tours University Hospitals from 2001 to 2003. Between 1996 and 2001, he was Senior Officer on healthcare financing and hospital policy expert at the French Ministry of Foreign Affairs. From 1994 to 1996, he was Deputy Director of the 870-bed University Hospital of NANTES. Dr. de Roodenbeke was the Expert, task team leader for a project involving construction, equipment, management of a 500- bed hospital in Burkina Faso (1989 to 1994). He was Deputy Director of Epinal- Vosges (France) General Hospital from 1984 to 1989. Dr. de Roodenbeke holds a Ph.D. in health economics - University of Paris 1, Sorbonne (France); a Hospital Administration Diploma from ENSP Rennes (France); and a Diploma in Public Health from the University of Nancy (France).

Dr. Narottam Puri is the current Chairman of NABH. He is also Consultant Emeritus- ENT, Head and Neck Surgery, and Advisor- Medical, Fortis Healthcare Ltd. and Advisor, FICCI Health Services Committee. He has varied exposure and experience of working in all facets of Indian health care over the last 44 years. He has extensive experience of working in government and private sectors. He is the winner of several prestigious awards and recognitions and is a member of several Medical Associations and industry bodies, including FICCI's Healthcare Personality of the Year award conferred to him in September 2013.

Jim Rice is the Project Director of the USAID funded Leadership Management & Governance Program with Management Sciences for Health (MSH). Dr. Rice is a globally recognized thought leader, whose 35-year career highlights leadership, management, and governance as essential vehicles for high-quality, accessible, efficient, and cost-effective health services. He has served as an advisor to health systems, physician groups, boards of directors, and ministries of health in more than 30 countries. Dr. Rice's consultancies have ranged from a micro-enterprise initiative with a Zimbabwe women's cooperative to support primary health services, to the development of a health plan in Chile that evolved into the largest health delivery system in Latin America. He guided health system reforms in Central and Eastern Europe, bringing innovative approaches to public-private partnerships. He has planned and evaluated income-generating health projects for USAID in Kenya, Bangladesh, Zimbabwe, and the Dominican Republic. He has trained managers of USAID child-survival projects in strategic planning and project management. He has also designed and conducted leadership development programs for health care leaders all over the world, most recently in a WHO course on strategy and policy implementation for senior officials of the Iraq Ministry of Health. Prior to his work with MSH, Dr. Rice was Executive Vice President of Integrated Healthcare Strategies, a consulting group focused on health delivery system effectiveness. He led the Governance and Leadership Services practice, focusing on developing strategic governance and leadership skills for physicians. He is also vice-chairman of The Governance Institute (TGI), an organization dedicated to enhancing the governance of health systems through knowledge

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generation and dissemination. He is on faculty of the Judge Business School, Cambridge University England; the School of Public Health, University of Minnesota, and former faculty of Nelson Mandela School of Medicine South Africa, and the Thunderbird Graduate School in Arizona. Granted NIH Doctoral Fellowship in Health Services Management

Laura Schiesari is an Associated Professor at the São Paulo Business Administration School - Getulio Vargas Foundation (FGV) and Sírio-Libanês Teaching and Research Institute (IEP Sírio-Libanês) as well as the Technical Director of the National Brazilian Association of Private Hospitals.

Hasbullah Thabrany has been working actively to improve public health services and universal health coverage in Indonesia. Mr Thabrany obtained MD degree from Universitas Indonesia and Dr.PH degree (1995) from the University of California at Berkeley, USA. He also received recognition as Health Insurance Professional and Managed Health Care Professional from the Health Insurance Association of America. He was the founder of the Indonesian Association of Health Insurance Managers and became the Chairman of the Association (1998-2010). Since 2000 he has been a key person in reforming social security reform, including the establishment of the National Health Insurance (INA-Medicare) that will be commenced in January 2014. He was a member of the Presidential Task Force to reform social security. He was the dean of the School of Public Health at the Universitas Indonesia (2004-2008) and President of the South East Asian Public Health Institutions Network (2009-2011). At present, he is. He is a professor in Health Economics and the Chairman of the Center for Health Economics and Policy Studies at Universitas Indonesia, the leading university in Indonesia.

Steven J. Thompson has over 25 years experience in various positions within academic medicine & academic health centers. He has extensive experience in global health care collaboration and global health care business development. He is currently the Chief Executive Officer of Johns Hopkins Medicine International as well as the Senior Vice President of Johns Hopkins Medicine. He has particular interest in developing innovative ways for organizations to collaborate with a wide range of partners, working towards the common objective of improving health status and health care delivery around the world. He has written and spoken extensively on a wide range of topics related to the globalization of health care including health system design, health care leadership and health care workforce development.

Juan Pablo Uribe, a medical doctor by training, is the Director General of the Fundación Santa Fe de Bogotá, a leading organization in Colombia working in health care, health education and public health. Previously, he was the World Bank's Health Sector Manager for East Asia and the Pacific, based in Washington D.C. With master degrees in public health and public administration from the University of Michigan (Ann Arbor), he has held various health positions in the public and private sectors, nationally and internationally. He is former Vice Minister of Health for Colombia (1998–1999) and former National Director of Public Health (1994). He was also CEO of the Fundación Santa Fe de Bogota (2005-2009) and senior health specialist for the World Bank in Latin America (2000 - 2004). Currently, he is a board member (and Vice President) of the Colombian Association of Hospitals and Clinics and the National Board of Health Accreditation, among others, and member of the Panel of Experts of the Global Program on Output-Based Aid (GPOBA) at the World Bank.

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	Objective	Activities	Website	Reported Impact	Host Institution
Baby-Friendly Hospital Initiative	To ensure that all maternity facilities, whether free standing or in a hospital, become centers of breastfeeding support.	A maternity facility can be designated 'baby-friendly' when it does not accept free or low-cost breast milk substitutes, feeding bottles or teats, and has implemented 10 specific steps to support successful breastfeeding.	http://www.unicef.org/programme/breastfeeding/baby.htm	Since the BFHI began, more than 15,000 facilities in 134 countries have been awarded Baby-Friendly status. In many areas where hospitals have been designated Baby-Friendly, more mothers are breastfeeding their infants, and child health has improved.	WHO and UNICEF
Global Health Workforce Alliance	The Alliance is a global partnership, formed in 2006 as a joint platform for action on the health workforce crisis. Its members include governments, UN agencies, professional associations, NGOs, foundations, research and training institutions and the private sector.	As a partnership, The Alliance's purpose is to highlight the health workforce crisis and keep it on the global agenda, convene members, partners and countries to work together to find solutions, advocate for their effective implementation and facilitate the sharing of knowledge and best practices on health workforce issues. The Alliance tracks HRH commitments, hosts a Global Forum on HRH, and hosts an online e-platform for networking.	http://www.who.int/workforcealliance/en/	A study by the Global Health Workforce alliance found that Mid-Level Health workers (2-5 years of training), when properly trained, can fill large gaps in the health workforce of developing countries that were previously perceived to be exclusively for medical doctors.	WHO
Health Care Quality Indicators Project	The OECD Health Care Quality Indicators project, initiated in 2002, aims to measure and compare the quality of health service provision in the different countries. An expert group has developed a set of quality indicators at the health systems level, which allows them to assess the impact of particular factors on the quality of health services. The approach is to complement and coordinate efforts of national and international bodies. These efforts will offer policy makers and other stakeholders a tool to stimulate global learning.	The OECD Health Care Quality Framework activities include: <ul style="list-style-type: none"> • Health Promotion, Prevention and Primary Care • Mental Health Care • Cancer Care • OECD Work in Patient Safety • Responsiveness and Patient Experiences • Strengthening Health Information Infrastructure 	http://www.oecd.org/health/health-systems/healthcarequalityindicators.htm	At the end of 2010, a public forum on the quality of care was held to raise awareness of the importance of measuring quality for the good of patients and health budgets alike. A key publication, "Improving Value in Health Care" was released for this event.	OECD
Institute for Healthcare Improvement	The Institute for Healthcare Improvement (IHI), an independent not-for-profit organization based in Cambridge, Massachusetts, is a leading innovator in health and health care improvement worldwide with the mission to improve health and health care.	IHI supports professional development programs — including conferences, seminars, and audio and web-based programs — inform every level of the workforce, from executive leaders to front-line staff. They also provide free content on their website and collaborate directly with health care facilities, health care systems and governments.	http://www.ihf.org/Pages/default.aspx	IHI's open school has over 100,000 members.	Institute for Health care Improvement
International Hospital Federation (IHF)	The IHF is a global association of health care organizations which include, but are not limited to, hospital associations and representative bodies as well as their members and other health related organizations. The character of the IHF is that of an independent, non-profit, non-governmental organization.	IHF members and the secretariat are involved in international projects focusing on topics of concern that fit within IHF's goal: improve the health of society. These projects, through external funding, contribute to an increase in skills and manpower at the IHF Secretariat as well as stimulating networking between members, other NGOs, and international organizations, such as WHO. Priority is given to projects that assist low income countries to develop their health services.	http://www.ihf-fih.org/	The IHF partnered with the Taiwanese Export-Import Bank and the Taiwanese Embassy in Ouagadougou to establish a 600-bed University hospital. The IHF field team provided a report following collaboration that recommended the following: The creation of a team assigned exclusively with the task of hospital opening, adoption of a management system that will allow good governance and promote performance, and a phased opening to allow for total integration into the existing health system.	International Hospital Federation Secretariat
International Medical Corps	International Medical Corps is a global humanitarian organization dedicated to saving lives and relieving suffering through interventions for health and related social determinants, while also building local capacity in underserved communities worldwide. IMC's programming seeks to strengthen all	IMC implements hospital services management programs that aim to improve access to quality secondary and tertiary care. Support for hospital services management includes assistance with the assessment, planning, implementation, and evaluation of hospital based health care as well as technical assistance for normative standards, protocols, and guidelines that aim to improve the quality of care.	http://internationalmedicalcorps.org/document.doc?id=256	<i>Iraq</i> Emergency room deaths before and after the physician and EMT training courses showed a 47% reduction. <i>Afghanistan</i> Case fatality rates for high-risk pregnant women fell from over 4% to under 1%. <i>South Sudan</i> Utilization rates increased from 0.48 consultations per person/year	International Medical Corps

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	levels of health care services.			to 0.92 per person/year.	
International Quality Indicator Project	The IQIP's aim is to develop educational materials, conduct user groups and educational sessions in the field, learn from the efforts of IQIP participants to understand and put their data to work, and assist in participants' benchmarking and networking activities.	IQIP participants receive quarterly data reports, which allow for longitudinal trending and comparison to national, regional, and international aggregate rates. In addition, the IQIP offers custom reporting capabilities to provide comparisons with more narrowly user-defined peer groups.	http://www.internationalip.com/	Nearly 350 health care organizations in 17 countries use the IQIP tools to collect, analyze, and compare clinical and administrative health care data.	IQIP, Press Ganey
Johns Hopkins Medicine International (JHI)	JHI provides personalized care for patients traveling to Johns Hopkins from outside the United States, and collaborates with affiliates across the world to improve health care globally.	Through long-term, mission-driven collaborations with leading health providers, governments and educational institutions around the world, Johns Hopkins Medicine International works hand-in-hand with the local partner to raise the standard of health care in a way that is completely customized to the partner's vision and the Hopkins mission.	http://www.hopkinsmedicine.org/international/	Johns Hopkins Aramco Health care collaboration in Saudi Arabia seeks to fuel clinical innovation and serve as a model in the provision of health care and contribute to the development of the health care industry. JHI's partnership with Hospital Moinhos de Vento in Brazil seeks to enhance existing clinical strength, improve nursing practices and patient safety, and explore potential for collaborative research.	Johns Hopkins Medical Center
Joint Commission International	The mission of JCI is to continuously improve the safety and quality of care in the international community through the provision of education and advisory services and international accreditation and certification.	JCI provides organizations help themselves in three ways: accreditation, education, and advisory services.	http://www.jointcommissioninternational.org/ ; http://www.jointcommissioninternational.org/WHO-Collaborating-Centre-for-Patient-Safety-Solutions/	The WHO has designated Joint Commission International as the WHO Collaborating Center for Patient Safety Solutions. The JCI advances the entire continuum of patient safety including principles related to system design and redesign, product safety, safety of services, and environment of care, as well as offering proactive solutions for patient safety, whether based on empirical evidence, hard research, or best practices.	The Joint Commission
Magrabi Foundation's Capacity Building Program	To efficiently valorize their knowledge base and leverage their social impact far beyond what they can achieve with programs they operate themselves.	The Magrabi Foundation's Capacity Building Program Activities Include: Ophthalmology certificate courses, hands-on surgical training, hospital quality management, EBSAR training center for the blind, NGO capacity building, In-House research	http://magrabi.org/causes/capacity-building/	120 graduates of certificate courses which include doctors, hospital managers, and paramedical professionals. Surgical training programs that allow MOH staff to have access to resources such as a simulator, a wet lab, and OR assistance programs.	Magrabi Foundation
Management Sciences for Health (MSH)	MSH, a global health nonprofit organization, helps leaders, health managers, and communities in developing nations build stronger health systems for greater health impact. Through strengthening capacity, investing in health systems innovation, building the evidence base, and advocating for sound public health policy, MSH is committed to making a lasting difference in global health	MSH pursues its mission by building high-impact, sustainable, locally-owned health systems. They apply our expertise across six health systems building blocks, as identified by the World Health Organization: <ul style="list-style-type: none"> • Leadership, Management, and Governance • Health Service Delivery • Human Resources for Health • Pharmaceutical Management • Health Care Financing • Health Information 	https://www.msh.org/health-systems http://www.msh.org/resources/health-systems-in-action-an-ebook-for-leaders-and-managers	Management Sciences for Health has more than two decades of experience in helping managers within the health system to coordinate and integrate activities, responsibilities, systems, and structures to ensure that their organizations' resources are used efficiently to achieve intended results.	MSH
McKinsey Hospital Institute	The McKinsey Hospital institute seeks to bring global health care expertise and operational and analytical skills to help executives confront basic business challenges such as customer satisfaction improvement, cost containment, supply chain management, and recruitment of top-notch talent.	Benchmarking metrics to reveal how hospital performance compares with direct competitors, world-class institutions, and emerging best practices. Dashboards and program management tools to allow hospital executives to monitor and manage operations against standardized performance indicators and to better engage staff and clinicians. Market and institutional analytics to identify opportunities to improve cost and quality and to assess the consequences of more sweeping actions, such as instituting payer risk-bearing arrangements or remaining independent in a world of affiliated	http://www.mckinsey.com/client_service/healthcare_systems_and_services	The McKinsey Hospital Initiative helped turn around a multimillion-dollar deficit created by an underperforming specialty unit within a European national health provider. After collecting data on key measures (such as theater utilization, patient length of stay, and waiting time) and synthesizing it with observations from patients, staff, and clinicians, McKinsey helped revise pathways and redesign clinical coordinating roles that together improved both financial performance and patient satisfaction McKinsey also supported a successful US hospital system in a comprehensive performance transformation in anticipation of expected shifts in the market. This multiyear effort included redefining key strategic goals, improving IT and sourcing capabilities, and redesigning the organizational structure to improve team effectiveness. The effort generated \$120 million in savings and implemented a	McKinsey and Company

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		institutions.		care model shown to have enhanced the patient experience.	
Partners Health care: Harvard Medical International	Partners HealthCare International® (PHI) is an academically-based international health care organization with the mission to transform health care by developing programs with a global network of highly regarded institutions committed to excellence in medical care, education and research.	PHI fosters collaborations between the leaders, professional staff, administrators, researchers, and educators at these institutions and staff at Harvard Medical School affiliated teaching hospitals: Brigham and Women’s Hospital, Massachusetts General Hospital, Spaulding Rehabilitation Hospital, McLean Hospital, and Dana-Farber Cancer Institute.	http://www.partners.org/international/	Acibem healthcare group developed an intensive 5-year collaboration with Partners HealthCare International designed to increase quality service at Acibadem’s hospitals and position the organization as a regional leader in health care deliver. PHI was able to deliver the following: <ul style="list-style-type: none"> •Critical inputs on the Acibadem overall strategic plan for new development of clinical programs and facilities and positioning in the marketplace. •Planning assistance -- including clinical program development, workforce development, and facilities development -- to support the creation of a center of excellence for oncology and neuroscience. •Creation of a nursing leadership development initiative aimed at developing a high-performing nursing service to support programs in oncology and neuroscience. •Training and assistance from top Harvard-affiliated clinical experts to develop standard procedures to provide consistent care across the network. •Numerous customized professional development programs to enhance performance in multiple areas of hospital operations, including human resources, pharmacy, and specific clinical departments. 	Brigham and Women’s Hospital and Massachusetts General Hospital
Performance Assessment Tool for Quality Improvement in Hospitals (PATH)	PATH is a performance assessment system designed by the World Health Organization to support hospitals in defining quality improvement strategies, questioning their own results and translating them into actions for improvement.	Starting with performance measurement, PATH encourages hospitals to learn about their strengths and weaknesses and initiate improvement activities that ultimately help them to fulfill their mission. PATH also offers an opportunity for international benchmarking based on hospitals’ specialties, type, and locations.	http://www.pathqualityproject.eu/	PATH provides an international educational conference and national training workshops. They also provide a structure for twinning projects between individual institutions facilitated via the PATH Network. PATH provides hospitals and health systems with training and consulting services.	National Center for Quality Assessment in Health Care, WHO Collaborating Center for Development of Quality and Safety in Health Systems
St. Jude International Outreach	The St. Jude International Outreach Program’s mission is to improve the survival rate of children with cancer and other catastrophic diseases worldwide, through the sharing of knowledge, technology, and organizational skills.	International Outreach develops partnerships with medical institutions and fund-raising organizations and facilitates involvement of other agencies and organizations to support key programs and the education of local personnel. St. Jude helps partner medical institutions develop tailored, evidence-based protocols for treating children with cancer and other catastrophic disease.	http://www.stjude.org/stjude/v/index.jsp?vgnextoid=2f166f9523e70110VgnVCM1000001e0215acRCD&vgnnextchannel=e41e6fa0a9118010VgnVCM1000000e2015acRCD	In El Salvador, the 5 year survival rate for children with acute lymphoblastic leukemia went from 10% to 60% during the first 5 years of collaboration and is now approaching international standards. The cure rate for childhood cancers in Recife, Brazil went from 29% to 70% since partnership in 1994. Since its opening in 2002, the Children’s Cancer Center of Lebanon has treated approximately 450 patients. Most of the center’s employees have been trained through fellowships at St. Jude and by resources available on the St. Jude Cure4Kids website.	St. Jude Children’s Research Hospital
The Advisory Board Company International Programs	The Advisory Board Company’s Health Care Executive Board researchers publish reports for senior executives who are on the “business side” of the organization and charged with focusing on innovation, finance, and strategy.	The Advisory Board Company’s International Programs and Health Care Executive Board seeks to: <ul style="list-style-type: none"> • Lead health care organizations through turbulent times • Improve quality across the care continuum • Build a world-class nursing organization • Maximize the potential of IT in health care • Achieve staff-driven culture change 	http://www.advisory.com/About-Us/International-Programmes	The Advisory Board Company initiated a learning program focused on innovation and change called “Front Line.” It provides performance improvement projects, skill-building workshops, coaching and support, results summits, and e-learning modules. There are currently more than 10,000 Front Line participants working on over 4,000 projects.	The Advisory Board Company
The European ESTHER Alliance	The European ESTHER Alliance is a network of Governments favoring the networking of health professionals and associations from the European region who decided to work in synergy for fighting HIV/AIDS and its consequences in developing and transitional countries through a high standard comprehensive treatment and care	Member countries implement capacity building activities through twin partnerships between developed and developing country hospitals and health systems.	http://www.esther.eu/	From 2002 to 2012, the Alliance has developed projects in more than 40 partner countries in Africa, Asia, Latin America, the Middle East and South East Europe. The ESTHER Alliance has more than 120 programs allowed implementing a wide range of twinning activities.	European Esther Alliance Secretariat

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	approach.				
Duke Global Health Institute: Duke Global Health Plus	The Duke Global Health Institute brings knowledge from every corner of Duke University to confront global health issues. DGIH is committed to developing and employing new models of education and research that engage international partners and find innovative solutions to global health challenges.	Provision of surplus medical equipment to health facilities globally. A shipment valued at \$1.3 million was made to Mulago Hospital in Kampala, Uganda. Duke surgical specialists used the equipment to modernize operating rooms, ICUs, and recovery rooms. They also provided neurosurgical, anesthesiology, nursing, and clinical engineering training programs.	http://sites.duke.edu/africaninitiative/duke-in-africa/	Duke's assistance has been integral in doubling the number of Mulago Hospital's surgical cases and tripling their number of neurosurgical cases.	Duke Global Health Institute
UCLA Public Health: Building Capacity Overseas	The UCLA Fielding School of Public Health has partnered with health care institutions, government agencies, non-governmental organizations, and academic institutions in East Africa and China to strengthen public health capacity.	<p>East Africa:</p> <ul style="list-style-type: none"> Management capacity building program for HIV/AIDS. Maximize treatment opportunity provided by low-cost generic antiretroviral medication by building a strong multidisciplinary clinical team, strong community involvement, and a well-organized management structure. Pairing of Western and African university faculty members to ensure sustainability of teaching and technical capacity building efforts. <p>China:</p> <ul style="list-style-type: none"> Organization of 12 hospital management and training workshops from nearly 1,000 Chinese hospital administrators between 1999 and 2004. 	http://www.ph.ucla.edu/magazine/sphmag_6_06_buildcapacity.pdf	A new journal of hospital administration was established in China and continues to be published regularly. In addition, seven postdoctoral scholars have spent between six months and one year at UCLA sponsored by their government, their university, or the WHO.	UCLA Fielding School of Public Health
Mayo Clinic Care Network	The Mayo Clinic Care Network is a network of like-minded organizations which share a common commitment to improving the delivery of health care in their communities through high-quality, data-driven, evidence-based medical care.	<ul style="list-style-type: none"> E-consult – Brings the expertise of a Mayo medical specialist to communities. AskMayoExpert – A web-based information system that allows doctors to quickly connect with expert clinical information on hundreds of medical conditions 24 hours a day. Health care consulting – access to peers, tools, and expertise in business processes to help members implement and realize the value of Mayo Clinic's integrated clinical care and practice models. 	http://www.mayoclinic.org/about-mayo-clinic/care-network	27 hospital members from the United States and Mexico. This includes specialty cancer hospitals.	Mayo Clinic
Yale/Stanford – Johnson and Johnson Global Health Scholars Program	Johnson & Johnson began partnering with the scholars program in 2001 to support the company's mission to build the skills of people who serve community health needs.	The program selects the most promising candidates from major American institutions, mainly Yale University and Stanford University, and sends them to one of six overburdened health care sites in places such as Eritrea, Indonesia, Liberia, South Africa, Uganda, and Central America.	http://www.investor.jnj.com/2009contributionsreport/healthcare-capacity/index.html	As part of the company's strategy to build health care capacity, more than 500 physicians at various stages in their training have participated in the program since 2001.	Johnson & Johnson, Stanford University School of Medicine, Yale University School of Medicine