TECHNICAL BRIEF

September 2014

CapacityPlus: Serving health workers, saving lives.

Health Professional School Leadership and Health Sector Reform, Performance, and Practice

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Overview

In the transition from the Millennium Development Goals (MDG) era to the post-MDG era, many low- and middle-income countries will be making significant shifts in their national health policies. Many will focus on universal health coverage and the epidemiologic shift from infectious to chronic diseases as causes of death. An important contributor to the process should be health professional schools.

Health policy reforms flow from the political leadership, which makes decisions to transition to new policy goals in response to demographic changes (such as a growing, more urbanized population) as well as greater public awareness and higher expectations regarding the centrality of health. Leaders may also adjust to existing or potential funding strengths and constraints. Many health systems move to expanded community-level health services, with community participation in planning and delivering primary care, and more effective systems of referral to secondary and tertiary care.

The leadership that is drawn upon to make policy changes tends to be in ministries of health, flagship hospitals, physicians and nurses associations, and social protection entities. Health professional schools are an additional and valuable—yet often overlooked—source of leadership in health reform and health policy-making. Leaders of health professional schools include deans of schools of medicine, nursing, midwifery, public health, pharmacy, and other health sciences, as well as chairpersons of clinical and nonclinical departments and centers (such as maternal health, obstetrics/gynecology, cardiology and cardiac surgery, oncology, biotechnology, health economics, health informatics, and health policy) and, increasingly, presidents and vice-chancellors of universities who are health professionals.

Health professional schools are important in that they produce health workers, the major input in the health system. Not only are labor costs a central part of the health budget, but the majority of all health system costs are determined by health worker variables. The practice behaviors and personal preferences of health workers will determine the communities in which they work and whether they practice primary or specialty care. In some countries, the amount of study and the magnitude of educational debt with which health workers graduate also significantly affect their practice behavior. Moreover, because health workers are employed in both public and private health systems, their education has a significant impact on all health systems in a country (Frenk et al. 2010).

In most countries, health professional schools such as medical schools, nursing schools, and health sciences schools are typically seen as academic and viewed as responders to national health policies and programs, rather than as originators or formal participants in the formulation of health policy. They are not typically institutionally oriented, nor do they have discrete funds to undertake in-depth studies of health services or health economics (including health labor market economics), nor is there usually any assessment of their capacity to respond to health objectives. In this way, leading thinkers are cut out of the policy design process. Insufficient inclusion of health professional schools in health policy-making often results in a disconnect between what a given health policy calls for and what the health education, training, and research system can



produce. This disconnect places increasing strain on teaching faculties and facilities, creates political and citizen disappointment that health workers are not readily available or are not responsive to competency needs of positions in the health labor market, and contributes to health system inefficiencies.

The reasons for the lack of formal engagement by the leaders of health professional schools with politicians and public sector policy-makers and deciders at the national, provincial, and local levels are complex. One reason is that most policy-makers and politicians are unfamiliar with the crucial role that health professional schools play in the success of the health system and tend to look to ministries of health as proxies for health sector interests. In addition, most policy-makers do not have health sciences training or backgrounds and often are unaware of the unique challenges the health sector must address, relative to other sectors. Health professional school leaders are perceived as living in academic "ivory towers" and not being helpful in solving real-world problems.

Some of this reputation as unproductive participants in the policy arena is well deserved; some health school leaders have a worldview in which research takes precedence over care, or in which technical excellence in care is the paramount metric and access to care is less important. Moreover, beyond their three central tasks—education, care, and research—most health academic leaders have been insufficiently entrepreneurial and are either uninterested in or anxious about engaging in the time-consuming and sometimes enervating process of policy dialogue, debate, and compromise. Health professional schools also do not always work sufficiently with professional associations; if they do, it is often more in the interest of protecting professional turf than determining how their profession can deliver and contribute the most value in the health care system. While willing to be courted informally for opinions and advice, many schools consider it almost demeaning to work with government bureaucracies and assess the implications of policy choices both small and large. The attitude of some schools seems to be that it is better to spend time responding to policy decisions than to expend energy shaping them.

The picture of health professional schools is changing, however. Medical and health professional schools in low- and middle-income countries increasingly recognize that early engagement in society's health sector directions and decisions is a new and essential mission. This evolving viewpoint acknowledges that working together means a "rising tide lifts all boats." Increasingly, school leaders accept that heightening the awareness of the national leaders and municipal decision-makers who can bring resources to bear in answering the challenges of efficiently and fairly using health care resources is a task that complements their traditional academic focus on education, research, and clinical practice.

This technical brief highlights some—still too rare—examples of how the education and research leadership of health professional schools has engaged, influenced, or obtained resources from national policy-makers and others with significant influence on the health sector, such as the pharmaceutical and health insurance industries, pension programs, parastatals that either directly or indirectly have a say in health policy decisions, and private health service providers. The brief also reviews instances in which different health educational institutions and professional associations have worked to shape national responses to health system needs.

Health professional school leadership

Health professional schools can lead in three ways, providing leadership 1) to ministries and other entities with national influence on the health sector; 2) through partnerships with other schools and professional associations; and 3) at the district, community, and facility levels (see Figure 1). We describe the different forms of leadership in greater detail in the following sections.

Health sector leadership

Many health ministers, senior health officials, health insurance representatives, pharmaceutical representatives, and private service providers have received some portion of their education from in-country health professional institutions, but they often disregard the leadership of those institutions in the formal health decision-making and policy dialogue process. There needs to be a strong interface between the institutions charged with producing the nation's health human capital who not only produce most of the participants in the public and private health labor markets but also carry out critical national research—and leaders responsible for policy formulation and decisions about financing and service provision. In short, health planning, generally, and health workforce planning and provision, in particular, should formally and regularly include health professional leaders who are directly responsible for health workforce production and health worker skills.

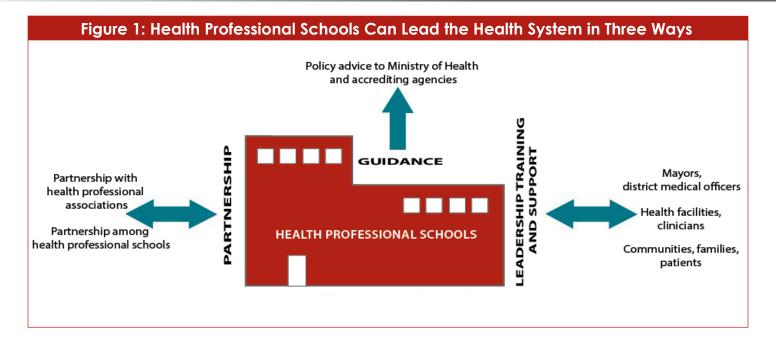
A number of countries around the world, both rich and poor, provide positive examples of leadership by key health professionals. (See Appendix for more details on the individuals mentioned below and other relevant health professional school leaders.)

Canada: Dr. John Evans, following his period as dean of the University of Toronto Medical School, strongly influenced Canadian health sector reform efforts both academically and politically—especially with regard to biotechnology policies.

China: Professor Chen Zhou, as China's minister of health, drew on his academic experience at Shanghai University and the Chinese Academy of Sciences to significantly and successfully influence China's health policies and programs. Notably, Minister Zhou worked to expand health care and public health services to the lowest income quintile and to remote rural patients, strengthen the quality of Chinese medical schools, and ensure the influence of analytical and research evidence in health policy decision-making.

France: Dr. Philippe Douste-Blazy, as a professor of medicine and cardiology at Toulouse Science University, "managed upwards" and influenced French noncommunicable disease policies in a major way. He then served twice as minister of health as well as minister of culture and minister of foreign affairs, remaining a linchpin in linking academia and politics in the fields of French health insurance reform, global health initiatives, and health and medical research financing.

Ghana: Dr. Fred Sai used his position as professor of preventive and social medicine at the University of Ghana Medical School to successfully influence government policy in the fields of family planning, nutrition, and maternal health. Dr. Sai subsequently became the country's chief physician for nutrition and director of medical services. A later position at the Harvard University School of Public Health enabled Dr. Sai to crucially influence global human resources for health, family planning, and maternal health innovations at the United Nations, the World Bank, International Planned Parenthood Federation, and



other institutions. As an advisor to several presidents of Ghana, Dr. Sai instigated health insurance, family planning, and pharmaceutical policy reforms in ways that served as examples to many other countries.

India: Professor Nirmal Ganguly, as director-general of the India Medical Research Council, used his Cabinet-ranked position to include important disease priorities in India's national and state health reform efforts.

Indonesia: Minister Haryono Suyono built upon his previous academic and technical leadership to importantly advance reproductive and maternal health and family planning.

Netherlands: Dr. Louise Gunning successfully drew on her experience as dean of the Amsterdam Medical School, president of the Netherlands Health and Medical Research Council, and president of the University of Amsterdam to influence the Dutch government's health policy changes and heighten the analytical role of Dutch academia for the country's health insurance reform efforts.

Nigeria: Professor Tayo Lambo, as minister of health, used his former academic standing as the leading health economics academic of the country to instill important economic and finance dimensions into Nigeria's health reforms.

South Africa: Minister Nkosazana Dlamini-Zuma used her pediatric leadership at the University of Kwazulu-Natal to integrate scientific and evidence-based approaches into South Africa's health reform decision-making process.

Uganda: Professor Nelson Sewankambo, as dean of Makerere University Medical School and then its vice-chancellor, teamed up with Dr. Francis Omaswa, the Ugandan government's directorgeneral of health, to importantly reposition the country's health financing policies and its health workforce approach.

United States: Dr. David Satcher served as faculty member at the UCLA School of Public Health and chairman of the Department of Community Medicine and Family Practice at Morehead School of Medicine. As US surgeon general, director of the Centers for Disease Control and Prevention, and assistant secretary of the Department of Health and Human Services, Dr. Satcher was instrumental in focusing attention on health disparities for minorities, the poor, and other disadvantaged

groups. He also drew attention to the need to promote sexual health and responsible sexual behavior as well as address tobacco use.

These examples illustrate that when there is a willingness to draw on academic expertise, the interaction between the leaders of a country's health professional schools and the government decision-makers involved in health reform can be both positive and productive. Unfortunately, in most countries such interactions remain woefully uncommon due to the absence of institutional structures and arrangements, including political and legal systems. This needs to be rectified so that the types of mutually beneficial interactions discussed in the examples become the norm and a matter of course.

Leadership through partnerships with other schools and associations

Health provision is undergoing a seismic transformation around the world. Health knowledge, technologies, and the skills that these demand are exploding at all levels, with no one cadre able to "do it all" and with all cadres requiring critical support from one another. Traditional relationships between medical doctors, nurses, midwives, community health workers, and other cadres (such as information technology specialists, medical technicians, and logisticians) are in flux.

Relationships between different health professional cadres have often been hidebound as a result of governance practices and parameters designed in the past century. As a result, many professional associations perform more as guilds, seeing their licensing roles as a shield rather than viewing population health goals as the primary focus. Health professional school leaders can provide objective and evidence-based bridging services, facilitating coordination and cooperation between professional associations and helping to revise national service policies and rules. Both because of the knowledge resources they can bring to bear and their broad perspective on health challenges, professional school leaders can be a trusted interlocutor between the various elements of the health system. To date, however, this comparative advantage has been significantly underutilized.

Health professional schools have a unique opportunity to exercise leadership within the health system by partnering with each other and professional associations. Through partnerships, schools and associations can pool resources and conduct training that includes multiple cadres. In this way, prospective graduates can become used to working in multiprofessional teams, helping make the adjustment to practice less difficult. Schools can also work together and with their associations to reverse many damaging trends in health professional education. This includes "credential creep," in which professions lengthen the time and the cost it takes to train a credentialed professional and obtain the foundational degree (certificate, bachelor's, master's, or doctorate), despite evidence that this practice effectively decreases access to care (Frenk et al. 2010). Another damaging trend is "academic shift," in which schools focus less on the actual daily competencies that a given cadre will need and more on theoretical background; this, too, can only be addressed with schools as partners. Schools can work together to emphasize the importance of clinical knowledge and skills alongside theory.

A number of countries have been moving in the direction of lateral partnerships. Examples include:

Bangladesh: The Bangladesh Ministry of Health, as the earliest world leader in health "sector-wide approach" (SWAp) strategies and financing, explicitly included national medical associations and academic postgraduate societies in its annual SWAp and consortium reviews and policy reviews, jointly with other domestic and international health sector partners.

Canada: The University of Toronto Sandra Rotman Center and University Health Network brings the university's health professional schools together with health insurance industry, pharmaceutical, and medical technology competencies to explore innovations and better ways to collaborate.

Kenya: The government of Kenya, under the aegis of the East African Community (a regional intergovernmental organization) jointly with the African Development Bank, is engaging with the country's medical schools. The latter are shaping interdisciplinary education, training, and research in biotechnology, health economics, insurance, emergency medicine, and trauma innovations across sectors and traditional disciplines.

Malaysia: The National University of Malaysia, in the context of reviewing academic policies and its role in the future, has engaged the wider Malaysian society in a two-way discussion on the social relevance of the university as well as engagement in cross-sectoral issues such as nutrition, trauma policies, and the interface between different professions and cadres.

Netherlands: The University of Groningen's health and medical school is leading the country's healthy aging policies with innovations, research, and education across multiple fields such as molecular biology, biophysics, macroeconomics of aging, law and labor policies, and ambulatory, preventive, and clinical care of aging.

Leadership at district, facility, and community levels

Much primary and secondary health care delivery takes place at local levels, provided by local institutions and practitioners. With increasing responsibility and additional financial resources being transferred downward through devolution or decentralization governance policies in many countries, the need to find ways to actively and effectively engage local authorities takes on heightened importance (Dafflon and Madies 2012). Municipal and provincial governments must have the capability to choose among health spending alternatives and possess the planning skills to meet realistic constituent health needs while adhering to national policies and guidelines. Health professional schools—which are located close to their constituencies—are well situated

to help design municipal and provincial programs, articulate health facility needs for catchment area coverage, enhance information flow and interactions between health service providers and consumers, and train health professionals to respond to local priorities.

One example of this type of leadership is in the Philippines, where health professional schools have found a way to both support and be supported by local government. Following devolution, the University of the Philippines-Manila School of Health Sciences (UPMSHS) recognized that mayors and other local officials were being given increasing resources and responsibilities for health care provision. At the same time, local officials had limited knowledge and awareness of the multiple health investment options available and lacked in-depth experience in developing health policy goals and plans and monitoring service provision (Tayag and Clavel 2011). In addition, under decentralized systems, the health sector often has to compete with other sectors such as education, transportation, utilities, and business development for limited local funds. Prior to devolution, health investment decisions made at the national level were made by national health experts with earmarked health budgets. Under the decentralized system, however, health investment choices were being made at the local government level by people with little or no training in making such choices or in drawing on a pooled budget for all sectors.

UPMSHS undertook two programs. The first aimed to reduce the shortage of health workers by recruiting and training workers locally and using centrally allocated funds to provide non-tuition support and accommodations for students. The second program focused on training local officials and district health officers to make evidence-based health investment decisions. Specifically, UPMSHS developed an innovative program to bring the technical expertise of its health faculty concretely to meet the needs of local jurisdictions, assisting them in understanding the complexities of health service delivery and learning to strategize, plan, and make use of incremental resources in the decisionmaking process. UPMSHS designed a week-long course for mayors and other local officials, using the six health building blocks described by the World Health Organization (2007). The course sensitized participants to public health issues and used the health building blocks to guide them in preparing a health road map and plan for their jurisdiction. Roughly six months after development of the road map, the school met with the individual mayors to review the progress made. As the UPMSHS experience has shown, providing local officials with access to nearby health professional school expertise can contribute to finding local solutions for local problems and promotes needed expertise in regular health management and program decision-making processes. This concrete application of a problem-driven iterative adaptation approach has those involved engage in a selforganized search for solutions to problems in a dynamic and shifting environment (Andrews, Pritchett, and Woolcock 2012).

Multilevel leadership

Another positive example of health professional schools engaging system-wide with health managers at the national level and affecting the municipal, district, and regional levels involves the Bangladesh National Institute of Population Research and Training (NIPORT). The example illustrates the potential benefit of making academic training and research relevant in achieving national health objectives. The Bangladesh NIPORT experience reflects a shift from traditional centralized planning and management to one more responsive to solutions that fit institutional needs and engage stakeholders in the process.

NIPORT, comprising a central national institute and 12 regional family welfare visitor training institutes across the country, introduced multiple innovative elements (Afroza 2012; Banglapedia 2012; World Bank 2011) supported by German technical and financial assistance, including:

- Emphasis on local recruitment of NIPORT students at the village level, with student selection led and endorsed by village committees
- Internships for NIPORT students at the originating district level
- Upon graduation from NIPORT, government posting to the originating district (and, preferably, the same village or municipality)
- 4. Annual refresher training at NIPORT and the regional institutes
- Gradual promotion and selection of posted alumni into the NIPORT system, first as junior faculty and then as more senior faculty over the years
- Selection of regular NIPORT faculty from best-performing alumni
- Involvement of faculty in the village- and district-level selection of subsequent student candidates, completing the full cycle of a mutual and two-way process of direct involvement of training and research with clinical and policy-making practice at the local, municipal, district, and regional levels.

The NIPORT system contributed upward to broader government thinking in that the central government diminished direct public sector community and district involvement in population research, recruitment, and training, with a preference for having rural nongovernmental programs (such as BRAC and Grameen Bank) take on responsibilities at the local level while retaining NIPORT at the national level (Afroza 2012; Huda 2010; Hulme 2008; Smillie 2009). It contributed downward by providing local institutions with advice, support, and the training of personnel more likely to respond to their needs.

Conclusion

For a country to effectively and sustainably respond to universal health coverage goals, many actors must be involved in the deliberations and decision-making process, including health professional school leaders. Although health professional schools are often overlooked or sidelined and generally remain underutilized in terms of health sector reform potential, they bear the brunt of responding to new national universal health coverage goals as the entities responsible for producing skilled health workers, conducting essential research, and setting guidelines and the highest standards for clinical care.

The reasons for insufficient formal engagement of leaders of medical, nursing, midwifery, and other health sciences schools are complex. Many policy-makers and politicians responsible for the full range of national finance decisions and sectoral issues and priorities remain insufficiently familiar with the role that health professional schools can and already do play as well as their direct and indirect contributions to health system development. Ministries of health and the health care sector are often not effective in bringing together various constituencies and health interests (professions, industries, associations, and health professional schools) to speak out on critical health issues with the common objective of improving health outcomes. Additionally, the political landscape is changing in many countries with the shift toward decentralization. Whereas there is

greater reliance on local authorities to handle health matters, not much attention has been paid to ways in which local government leaders might interact with regional health professional school leadership to shape a jurisdiction's health plans, personnel requirements, and budget process to respond to local needs.

Overall, the examples in this brief illustrate that health professional schools can exercise leadership in a variety of ways and with a variety of stakeholders. To tap into this leadership potential, it is important to raise the awareness of national, regional, local government, community, and other stakeholders about the policy-making resources that schools have to offer, while working with schools to increase their ability and readiness to take an active part in the policy process.

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Appendix: Examples of Health Professional School Leaders Who Influenced Health Sector Reform, Performance, and Practice	
Name/Country/Link	Positions
Dr. Awa Marie Coll-Seck (Senegal) en.wikipedia.org/wiki/ Awa Marie Coll-Seck	Minister of health, professor at the University of Dakar
Professor Abdullah Daar (Canada) en.wikipedia.org/wiki/ Abdallah Daar	Professor of public health, professor of surgery, University of Toronto; foundation dean of surgery, University of Oman Medical College; leader in biomedical sciences, organ transplantation, surgery, global health, and bioethics
Dr. Nkosazana Dlamini-Zuma (South Africa) en.wikipedia. org/wiki/Nkosazana Dlamini-Zuma	Minister of foreign affairs, University of Kwazulu-Natal
Professor Philippe Douste-Blazy (France) en.wikipedia.org/wiki/Philippe Douste-Blazy	Professor at Toulouse Science University, French minister of health (twice), minister of culture, minister of foreign affairs
Dr. John Evans (Canada) en.wikipedia.org/wiki/John Robert Evans	President of the University of Toronto
Dr. Nirmal Ganguly (India) www.grandchallenges.org/about/scientificboard/Pages/Ganguly.aspx	Director-general, Indian Council for Medical Research
Dr. Louise Gunning (Netherlands) www.uva.nl/en/about-the-uva/organisation/executive-board/executive-board/executive-board/cpitem-2/link/l.j.gunning-schepers	Ministry of health director, president of the University of Amsterdam
Professor Wen Kilama (Tanzania)	Director-general of the National Institute of Medical Research and Innovation (NIMRI)
Professor Ransome Kuti (Nigeria) www.ncbi.nlm.nih.gov/pmc/articles/PMC1126279/	Minister of health, professor at the University of Lagos and Ibadan
Professor Eyitayo Lambo (Nigeria) en.wikipedia.org/wiki/ Eyitayo Lambo	Professor of economics, Universities of Ibadan and Ilorin (1974–1992), minister of health (2003–2007)
Professor V. Ramalingaswami (India) en.wikipedia.org/wiki/Vulimiri_Ramalingaswami	Director-general, Indian Council of Medical Research
Professor Fred Sai (Ghana) www.intrahealth.org/page/ honoring-fred-sai-a-relentless-champion	University of Ghana and Harvard University School of Public Health; Ghana presidential advisor; global positions in family planning and maternal health
Dr. David Satcher (US) en.wikipedia.org/wiki/David_Satcher	Faculty at UCLA School of Public Health; chairman of Department of Community Medicine and Family Practice at Morehead School of Medicine; US surgeon general, director of Centers for Disease Control and Prevention, assistant secretary of Health and Human Services
Professor Nelson Sewankambo (Uganda) en.wikipedia.org/wiki/Nelson_Sewankambo	Dean of Makerere University Medical School, principal of Makarere University College of Health Sciences, acting vice-chancellor of Makerere University
Dr. Louis Sullivan (United States) en.wikipedia.org/wiki/ Louis Wade Sullivan	US secretary of Health and Human Services, dean of the Morehouse School of Medicine
Dr. Haryono Suyono (Indonesia) en.wikipedia.org/wiki/ Haryono Suyono	Minister of population and coordinating minister of social welfare, Airlangga University, Surabaya, and University of Chicago
Dr. Chen Zhou (People's Republic of China) en.wikipedia. org/wiki/Chen Zhu	Minister of health