

3.

Transforming and scaling up health professionals' education and training: What are the key policy issues and possible responses?

This section presents the main policy issues that face decision-makers in the five domains for interventions to transform and scale-up the education of health professionals identified by the Core Group, these being: education and training institutions, accreditation and regulation, governance and planning, financing and sustainability, and monitoring, implementation, and evaluation.

The policy recommendations do not cover all areas of health professionals' education and training. Only those seen as priority areas by both WHO and the Core Group were included. Furthermore, there are a number of areas where more research is needed even with regard to the five main domains and these are outlined in Section 5 *Knowledge gaps and research agenda*.



3.1

Education and training institutions

There are health workforce imbalances in terms of deficits, shortages or inequitable distribution of workers in all countries (Celletti, et al., 2011; Frenk, et al., 2010). Together with the imperative to deliver more and more effective health services, these imbalances create an urgent need to scale up the number of human resources for health, to adapt the education and training of health providers to the new epidemiological and demographic challenges, and ensure a proper skill mix, and to adopt measures and incentives to make the geographical and organizational distribution of health professionals more equitable (Frenk, et al., 2010). In many countries,

this need has to be met in a context of difficult economic circumstances.

The link between education and health systems is close, as the former provides an essential resource to the latter: health professionals. There is consensus that, in most countries, there are insufficient health care providers, and many are deficient in terms of the quality and relevance of their training. New generations of health professionals equipped with appropriate competencies and capable of leading change must be educated and integrated into health systems in a continuous process of adaptation to a new reality in health.

The Lancet Commission has identified a series of reforms of education processes necessary for health systems to effectively answer population needs (Frenk, et al., 2010). These reforms aim at the acquisition of competencies responsive to local needs but connected globally, which include a culture of critical enquiry and the effective use of information technologies. Reforms should also trigger a renewal of professionalism. The ultimate goal is a transformative¹ and interdependent² professional educational system for health professionals to provide equity in health. To achieve that goal, it is essential to mobilize leadership within the educational and health systems, to invest more, to develop robust quality control mechanisms and to strengthen global learning.

In the process of building stronger education institutions, policy-makers face key questions such as: How to recruit the right type of students? Which competencies should they equip their graduates with? What profile of educators and trainers and which learning strategies are more appropriate? The Lancet Commission has identified four key policy issues corresponding to these questions: (1) admission; (2) competencies; (3) channels of instruction; and (4) career pathways (Frenk, et al., 2010). Additionally, there is the question of which institutions are best prepared to produce the desired quantity and quality of health professionals.

1 "... the highest of three successive levels [of education] (...) it is about developing leadership attributes; its purpose is to produce enlightened change agents." (Frenk, et al., 2010:6.)

2 "... involves three fundamental shifts: from isolated to harmonized education and health systems; from standalone institutions to networks, alliances, and consortia; and from inward-looking institutional preoccupations to harnessing global flows of educational content, teaching resources, and innovations." (Frenk, et al., 2010:6.)

3.1.1 Key Policy Issue #1:

Which competencies should students acquire?

In 1910, following the recommendations of the Flexner Commission and other major commissions of enquiry (e.g. the Gies Commission on the education of dentists in 1926) that explored the quality of the education of health professionals (Frenk, et al., 2010), the principles of current medical curricula were established. The emphasis was put on the acquisition of core competencies, e.g. a minimum set of scientifically based knowledge and skills, needed to deliver health care. As a result, Flexnerian reforms centralized the training of health professionals in hospital settings, with the emphasis placed on a biomedical approach to education, at the expense of a more comprehensive understanding of social and community health problems. Although not all educational institutions followed this biomedical model at the same pace, the result overall has been a “...mismatch of competencies to patient and population needs, poor team work, persistent gender stratification of professional status, narrow technical focus without broader contextual understanding; episodic encounters rather than continuous care; predominant hospital orientation at the expense of primary care; quantitative and qualitative imbalances in the professional labour market; and weak leadership to improve health system performance.” (Frenk, et al., 2010:5) More overtly, over the past century, the demographic, epidemiological, socioeconomic and technological environment has changed dramatically with increasingly complex and new demands on the health professional workforce. For all of these reasons, Frenk and his colleagues argue that curricula need to be adapted to produce professionals with the capacity to identify and adjust to new environments in a continuous process of learning and adapting their competencies.

Meanwhile, it is widely recognized that it is not sufficient to adapt the curricula in line with the changing environment and technologies, but what is more critical today, is that health professionals must be able to adapt to cultural variations and values, as well as attitudes to the different health problems of populations. A good example of the sort of adaptation required is HIV/AIDS, where health workers are often faced with providing health care in an environment where the stigma of having HIV hinders their access to patients.

3.1.2 Key Policy Issue #2:

Which teaching and learning strategies are relevant?

The reflection on which competencies should be taught and developed is still going on, but a consensus exists that an important type of competency needed by all health professionals is the capacity to collaborate across professional boundaries. Traditionally, the education of the various categories of professionals has been conducted in silos, each group developing its own set of competencies within a culture of ownership of a specific area of work. In today's health environment, teamwork is increasingly the model for care delivery³, where boundaries need to be expanded and inter-professional education considered as a step towards that collaborative practice model of care. Inter-professional education is the process by which students from different professional programmes learn together during certain periods of their education with a view to enhancing collaboration and team work, and ultimately improving patient-centred care. Inter-professional education aims to ensure that all members of the health team understand each other's roles, core competencies, basic language and mind-sets, and that they develop attitudes and behaviours that facilitate collaboration. Although these objectives are obviously appropriate, there remains a need for further research evidence on the effectiveness of inter-professional education in improving collaboration and patient care outcomes. Initial research studies reveal that IPE increases confidence in health professionals' identity and appreciation of the roles of other professions, and improves communication and team-working skills.

Another innovative teaching and learning strategy considered for IPE is e-learning. The richness of e-learning is that it can be used in both high-income and resource-constrained countries and can also be a tool for inter-professional education, particularly if it is delivered in an open access environment. Several studies have demonstrated an overall positive effect of e-learning or blended learning courses compared to the more traditional didactic teaching, in the acquisition and retention of knowledge. Another advantage to be considered for e-learning is that it is accessible by health professionals working in remote areas whereby they can continue developing their competencies through such means as a versatile distance education. Because of its role in alleviating professional isolation, distance learning can be a component of a strategy to retain health workers in rural and remote areas. However, not all competencies can be developed without some interaction with trainers or peers; the utilization of blended and even traditional strategies should be considered in such cases⁴.

Some health professional programs incorporating inter-professional learning experiences are being developed using a community-based learning approach, so that not all experiences are limited to institutional formal hospital settings.

³ Virani (2012) identifies five types of inter-professional care models: inter-professional team models, nurse-led models, case-management models, patient-navigation models and shared-care models.

⁴ WHO commissioned a paper that was published in the Journal of Human Resources for Health entitled 'E-learning in Medical Education in Resource Constrained LMIC Countries'. Seble Frehywot*, Yianna Vovides*, Zohray Talib, Nadia Mikhail, Heather Ross, Hannah Wohltjen, Selam Bedada, Kristine Korhumel, James Scott. Human Resources for Health 2013, 11:4

3.1.3 Key Policy Issue #3:

Which educators and trainers? Which career pathways?

The selection and recruitment of qualified educators and trainers is a crucial part of the scaling up and transformation of the education of health professionals. Recruited staff should have adequate clinical and scientific competencies, but they rarely have the pedagogical preparation (communication, adult learning principles, use of new information technology, etc.) required to function in the transformed environment.

Faculty development is, therefore, important to ensure that teachers and trainers are well prepared to assume their responsibilities as educators. Faculty development is defined as a planned programme of events aimed at preparing individuals for their roles as teachers, clinicians, researchers and administrators with the purpose of enabling the institution to meet its goals, vision and mission, and its social and moral responsibilities to the communities it serves (Frenk, et al., 2010; Couper, et al., 2012). Another relevant issue is that, in many instances, teaching is not the most important activity of teachers, being considered complementary to, or even a diversion from, patient care and research which are perceived as more rewarding. The current and proposed effort to train more doctors, nurses, midwives and other health professionals puts an extra burden on institutions and their staff; more educators are needed and their functions must be made more attractive. Incentives such as access to faculty development are part of the response to bridge the gap between teaching and clinical work by allowing interaction between monitoring and coaching, relationships and networks, organizations, systems and cultures, and tasks and activities. In order to facilitate the attraction and retention of educators, career structures and incentive and reward systems need to be developed or improved. Specific efforts are needed to train and attract teaching staff with competencies in primary care in order to provide future health professionals not only with knowledge in the field, but also with role models which can stimulate them to choose this career orientation.



3.2 Accreditation and regulation

Regulation and accreditation are essential components of any strategy to improve the performance of a health-care system. Laws and regulations directly and indirectly affect “who in the health care world can do what to whom and where”. Policy-makers can view regulation as a tool in addressing workforce imbalances and other challenges, and meeting the objectives of scaling up health professionals’ training and education. Key issues to be considered are: 1) Why regulate? 2) What to regulate? 3) What extent of regulation and accreditation? 4) Who should regulate? 5) How should the effects of regulation be measured?

3.2.1 Key Policy Issue #1:

Why regulate practice and accredit courses?

Market failures in the health workforce are well known and not correcting them may result in severe harm to populations: for example, if there were no minimum qualification requirements to entering the health labour market, populations would be exposed to incompetent providers and to individuals misrepresenting themselves as qualified health-care providers. Also, an unregulated market would not respond to the needs of the poorer sections of the population, or to health-service needs that are not financially attractive, such as primary care, public health or diseases more prevalent among the poor. Training institutions would have an incentive to give priority to professions and specialities more sought after by potential students. There would be little interest in recruiting from minority groups or training for underserved regions. The rapid growth of private-for-profit actors in the health sector, not only as health-service providers but also as trainers of health professionals has made these concerns increasingly acute. For example, in India, 147 of the 191 new medical schools established in the last 30 years are in private universities (Uys & Coetzee, 2012). As a guardian of the public interest, the state has a responsibility to ensure that citizens are protected against poorly qualified or unqualified providers of health services, and therefore should act as a facilitator of the quality of education of health professionals, as well as insuring that sufficient health professionals are being trained and that their training meets the needs of the community. In human services, such as health, the need for protection is enhanced by the information asymmetry between provider and patient, and regulation is needed to guarantee that health professionals do not take advantage of the relative dependency of their clients

Key Policy Issue #2:

The scope of regulation and accreditation

Typically, the following aspects of health professions that are regulated rather than left to the market are: (i) access to education institutions; (ii) curricula; (iii) access to practice and the scope of tasks that can be performed; (iv) quality of professional education and respect of ethical norms; and (v) continuing maintenance of competencies. Regulatory mechanisms include accreditation, licensure (and sometimes periodical re-licensure), professional inspection and compulsory continuing education. As regards the education of health professionals, important questions are: who can set up a training/educational institution; should there be international/national standards for programmes, curricula, qualification of educators? How can regulation contribute to scaling up the quantity of health professionals and the quality and relevance of their education and training?

The most common approach to accreditation of institutions and programmes is the process model that includes: self-evaluation based on agreed standards; a peer review that usually includes a site visit; and a report indicating the outcome of the accreditation (full accreditation, conditional accreditation and no accreditation). A ministry, a professional regulatory body, a national accrediting body or a professional society may carry it out. However, in more than half the countries of the world, reviews of schools and programmes are not done at all or not adequately (Uys and Coetzee, 2012). There is only weak evidence of a causal link between accreditation and higher quality. When accreditation is voluntary, the likelihood of such an association is higher, but the explanation may be that it is only those higher quality institutions that choose to become accredited (Sutherland & Leatherman, 2006).

In low-income countries, the existence of a statutory authority for the regulation of the medical, dental, pharmaceutical, nursing and midwifery professions is common, but rare for mid-level health workers, leaving them in a legal limbo. In a small number of countries, there exists a Council for Professions Allied to Medicine, which, in certain cases, does cover clinical officers and medical assistants. In terms of effectiveness, there are sometimes grave deficiencies in the processes of determining competence to practice. Two deficiencies in particular are highlighted: the evolving roles of health workers are not adequately recognized (an example is the emergence of new prescribers in response to the HIV epidemic); and lifetime registration implying that there is a major risk of skill decay over time. This is particularly likely to occur when the regulatory body is a branch of the same entity responsible for training health workers (e.g. ministry of health) where graduates of the training programmes are automatically licensed to practice with no independent assessment of competency (Johnson, 2012).

However, good practice in the shape of the shift from a single lifetime registration or licensure to a pattern of periodic re-licensure subject to evidence of continuous professional development and/or re-assessment of competence to practice is increasingly encountered.

3.2.3 Key Policy Issue #3:

What is the right balance between regulation and autonomy of institutions?

Regulation can be a barrier to innovation if it is too rigid, excessive or not responsive to evolving needs. Rules and norms can also be too costly to implement and therefore deprive institutions of resources that could be devoted to improving their performance. A balance between flexibility and effectiveness needs to be found. For example, a recommendation to regulate the creation of schools and programmes should ensure that the conditions for doing so do not generate disincentives and subsequently hinder the expansion of the supply of educational opportunities. When there is no mechanism to ensure that students in the same profession receive the same quality of education, some form of regulation is needed; but to what extent should there be standardization of curricula and teaching strategies, without limiting space for innovation and adaptation to changes in the environment or allowing for cultural variations between countries or regions within countries? There is no easy answer to the question of the extent of regulation. Each country has its own cultural and legal traditions and specificities, and what is acceptable in one country may not be in another. However, the criterion that policy-makers should use is the same everywhere: which regulation will contribute more to improving the quantity, quality and relevance of health professionals?

3.2.4 Key Policy Issue #4:

Who should regulate?

States with a tradition of centralization tend to assume this function through their ministries of health or education, or agencies created for that purpose. In others, the state has the ultimate responsibility for protecting public interest, but it delegates regulation rights and duties to professional councils. Regulation is done by peers instead of bureaucrats or the market (Girardi, 2008). However, increasingly in these situations, there is greater oversight and accountability of the regulator and a move to greater public engagement in regulation. This is because it is increasingly recognized that the original impetus to statutory recognition was to secure a professional monopoly, the continued protection of which is not necessarily in the public interest. There are

also independent organizations, such as professional associations, which in some countries may regulate access to medical specialties, or accreditation agencies which regulate educational institutions and programmes. In general, countries use a combination of these mechanisms. The effectiveness of each modality depends on numerous factors and varies according to the country, period and even the professional group (Friedson, 2001). The ability of the professions to govern themselves and to balance their self-interest with the public interest is an issue of continuing debate. To determine who should be the regulator and what should be its role, with what powers, and how and to whom it should be accountable is a matter of acceptability as much as of effectiveness. For example, in Australia and Canada, accreditation is a bottom-up peer-managed process whereas in France, it is government-led. In some instances, educational institutions apply the standards of international accreditation bodies, in addition to or in substitution of national mechanisms. This is the case for medical education in Canada, for public health in Europe⁵, and for health services management in Canada and the United States of America, and increasingly in Asia, Europe and Latin America⁶.

3.2.5 Key Policy Issue #5:

How should the effectiveness of regulation be measured?

In assessing whether a health workforce that fulfils its social accountability mandate to the population it serves, the education regulation system of health professionals should be assessed in terms of its impact on quantity, quality and relevance on the basis of appropriate indicators. A robust, transparent process of accountability and public reporting mechanisms should be in place to ensure that regulation produces the expected results and that it is not monopolized by interest groups. Evaluation tools produced by the Training for Health Equity Network (2011) or by the Global Consensus for Social Accountability of Medical Schools (2007) may serve as the basis for the development of such measures that fit the objectives of regulators in a specific country.



3.3

Financing and sustainability

Financing is at the heart of enabling actions that make scaling up the education of health professionals feasible (Frenk, et al., 2010:35). With regard to financing, policy-makers need to address several key issues: (1) how much education changes will cost and how much the country can afford; (2) sources of funding; (3) where to allocate the funds; and (4) how to ensure a flow of funds to make scaling up sustainable.

3.3.1 Key Policy Issue #1:

Estimating the costs of scaling up and their affordability

The Taskforce on Innovative International Financing for Health Systems estimated that nine per cent of the total costs of scaling up health systems were related to pre-service training of health workers (WHO, 2009). The Lancet Commission estimated current global spending in education and training of health professionals at 100 billion US dollars, or less than two per cent of total health expenditure. The Commission described this level of investment as “not only insufficient but unwise, putting the remaining 98% at risk.” (Frenk, et al., 2010:35.) If two per cent is not enough, the question arises of how much should a country spend?

Producing more health workers requires more training, strategic marketing and recruiting, remunerating more educators and trainers, and additional infrastructure (laboratories, classrooms, dormitories) financial resources and equipment. There are two categories of costs that need to be considered in planning the expansion of the health workforce. First, there are the costs of expanding training capacity, which are a mix of capital costs for additional infrastructure and equipment, and recurrent costs for staff salaries and operating costs. Second, there are the costs associated with the employment of an expanded workforce, which are largely recurrent⁷. The high proportion of recurrent costs which are part of the total costs of scaling up presents a problem for low-income countries dependent on external aid, since donors are generally reluctant to take on long-term financing commitments. The affordability of additional expenditures generated by the scaling up is a matter for political decision based on value choices as well as on economic criteria, and consideration of the benefits in terms of health outcomes. Spending more on the education of health professionals would be acceptable if addressing the health needs of the population were considered a priority.

⁵ Association of Schools of Public Health in the European Region (ASPHER) – <http://www.old.aspher.org/> (accessed 29 November 2012)

⁶ Commission on Accreditation of Healthcare Management Education (CAHME) – <http://www.cahme.org/> (accessed 29 November 2012) and the Association of University Programs in Health Administration (AUPHA) – <http://www.aupha.org/> (accessed 29 November 2012).

⁷ Increasing numbers of one category has implications on the need for more of other categories e.g. more physicians require more nurses; more midlevel workers may require more professionals to supervise or support them. But more nurses could also mean a reduction in the number of doctors needed.

There are strong arguments to do so, as evidence shows that the strengthening of health systems to make them more effective in tackling population needs, namely through stronger primary care services, leads to better health outcomes and to economic development (Commission on Social Determinants of Health, 2012; Figueras and McKee, 2012; McKee, Basu and Stuckler, 2012). However, care is needed to ensure that the fiscal space is sufficient to cover the new expenditures, which raises the second issue.

3.3.2 Key Policy Issue #2:

Where will the money come from?

The issue of the source of financial resources will be addressed differently in accordance with the level of wealth of a country. In high-income countries, domestic resources will likely be the only source of funding. Options available to policy-makers are: (i) to use existing public revenues, by shifting resources within the health or education sectors, for instance from costly hospital services to education, or from other sectors to the education of health professionals; (ii) to look for efficiency gains, for instance by increasing the utilization of mid-level and community workers, by reducing attrition (GHWA, 2008:72), and by making savings in the current educational system to increase its productivity; (iii) to generate revenue through higher taxes; (iv) to mobilize private funds through fees paid by students or creating incentives for the opening or expansion of private educational institutions, which are largely funded by student fees; (v) a combination of the former. Whatever the choice, the process will be politically sensitive because of vested interests and particularly difficult in the context of economic and financial crisis in many countries. In lower income countries, the same domestic options exist, but they are unlikely to yield sufficient resources and external aid will be needed.

3.3.3 Key Policy Issue #3:

Where should the money go?

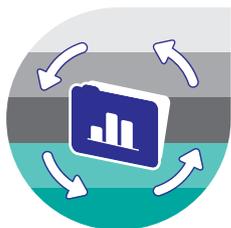
Spending more is important, but spending better is even more so. Funds should be used to increase the quantity, quality and relevance of health workers and thereby have the highest impact on the type and volume of services that the country needs. This is an issue of efficiency in the allocation of available funds: in what proportion should the funds be allocated to training physicians (and among them specialists or family practitioners), nurses and other technical personnel, or community workers? Evidence on allocation of resources among schools is scarce. Most studies compare the efficiency of different health workers in providing the same type of services, such as midwives/nurses/gynaecologists (Matendo R. et al, 2011, Rana TG et al, 2003). When studies on cost are performed, it is generally found that investing in midwives and nurses is cost-effective (Anderson RE, Anderson DA, 1999, Fagerlund K, 2009) although the evidence is mixed in highly developed health-care systems (Hendrix MJC et al, 2009).

What is the right balance between investing in infrastructure, compensation and working conditions, including continuing education, for health professionals? In the case of small countries without a faculty of medicine or specialty training, should they opt for training abroad or for developing their own training capacity?

3.3.4 Key Policy Issue #4:

How to ensure a flow of funds that makes scaling up sustainable?

In order to circumvent the risk that decisions about the expansion of training capacity are taken without adequate consideration of the long-term cost consequences, it is suggested that countries prepare a series of plans with both long-term or prospective timeframes, and short-term or operational timeframes. The training plan should be consistent with the human resources for health plan, which in turn should be consistent with the health sector plan. This plan should set out health improvement objectives and the strategies by which they would be achieved, including the respective roles of public and private sector actors, and should be compatible with the predicted available resources, both capital and recurrent. The human resources for health (HRH) plan should derive from the health sector plan and provide realistic estimates of the effective demand for different categories of health workers, taking into account employment in both public and private sectors. It should then formulate strategies for matching available supply to anticipated demand, also taking account of attrition from all causes, including emigration and employment outside the health sector. The HRH plan may well call for expansion in training outputs, which is the starting point for the formulation of a plan for the development of training capacity. This plan would review existing capacity, including the human resources dimension, and make proposals for the quantitative and qualitative improvements necessary to meet the training outputs specified in the HRH plan, within the available resource envelope.



3.4

Monitoring, implementation and evaluation

The implementation of transformative changes in the education of health professionals is justified by clear objectives: to ensure the availability of a workforce that is sufficient in number and skills mix, and has the competencies and professional outlook that correspond to the needs of the population it will serve. To ensure that these objectives are being achieved, mechanisms to track changes and their effects must be in place so that policy-makers can be informed in good time if their policies need adapting. To that end, valid and updated information is needed in an easily accessible and interpretable format. Monitoring and evaluation are key components of change implementation, but making them effective is often a challenge. Leaders planning

the transformation of the health workforce's education will face a number of challenging policy issues: what to monitor, how to do it, who should be responsible, and how to ensure that the information produced by monitoring and evaluation will be used?

3.4.1 Key Policy Issue #1:

What to monitor, for what purpose, and how to do so?

Monitoring is not an end in itself; there is little value in producing information that will not influence decisions. Also, not all information has the same weight and potential influence on decision-making. Therefore, it is critical that policy-makers and implementers of change identify their information needs. There is no need to monitor everything and thereby accumulate data that will be unused. The issue here is to identify what data and information are critical for decision-making, whether to adjust an intervention to changing circumstances (formative evaluation) or whether to continue or stop its implementation (summative evaluation). Typically, information is needed on the inputs, processes and results of interventions, the latter always being the most difficult to measure as they take time to produce.

The *WHO Handbook on Monitoring and Evaluation of Human Resources for Health* proposes that monitoring of entry into the health labour market focus on seven dimensions, of which four concern education: (i) the pool of eligible candidates for health education and training; (ii) recruitment and selection of students; (iii) accreditation of education and training institutions; (iv) capacity and output of education and training institutions (Tulenko, Dussault and Mercer, 2012). Do we need to include the subsequent employment of graduates? There is no point having educated health care graduates with no jobs. This framework can be a starting point for the definition of what it is worth monitoring. Indicators can be defined for each dimension to provide the information needed for the effective monitoring of the implementation process and the results.

3.4.2 Key Policy Issue #2:

How to conduct monitoring and evaluation and who should be responsible?

Effective monitoring requires information systems that produce relevant and reliable data in a timely and easily accessible manner (Dal Poz, 2012). In most countries, basic health workforce data, including those relating to the process of being educated, are deficient. Typically, data are dispersed among numerous organizations that collect information on different parameters, and use different definitions and timeframes, with the result that data quality varies in terms of consistency, validity, reliability, comprehensiveness and comparability over time. In general, data on health professionals employed in public services are more complete than on those in the private sector. Few countries produce data on multiple employment, productivity, or on the mobility of health workers. The introduction of transformative changes in education is an opportunity to review the strengths and weaknesses of current information systems, and to build systems that will make it possible to monitor and assess the effects of changes on the quantity, quality and relevance of new health professionals. In order to interpret data and to evaluate policy implications, explicit criteria and targets for these expected results are needed.

Data collection is best carried out by organizations closely involved with health education, e.g. training institutions (for quantity), professional regulatory bodies such as accreditation agencies and professional councils (for quality and relevance), and employers (for quantity, quality, and relevance). A high level of collaboration between key stakeholders is needed to reach agreement on the data to be collected, the definition of indicators, and on the sharing of the results. Some sort of clearinghouse that gathers data from different sources is needed. It can take different forms, such as an independent public institute (Canadian Institute for Health Information⁸, the UK Centre for Workforce Intelligence⁹), or a health workforce observatory (Brazil's network¹⁰), for example. Whatever the type of organization, its goal should be to ensure the quality and relevance of data, which should allow tracking graduates, in particular their professional options, such as their field and location of practice. This may be best done centrally rather than at an institutional level, by an accrediting body or a relevant government agency.

8 Canadian Institute for Health Information (CIHI): <http://www.cihi.ca> (accessed 29 November 2012).

9 Centre for Workforce Intelligence (CFWI): <http://www.cfwl.org.uk/> (accessed 29 November 2012).

10 Rede Observatório de Recursos Humanos em Saúde do Brasil (ObservaRH): <http://www.observarh.org.br> (accessed 29 November 2012).

3.4.3 Key Policy Issue #3:

How to facilitate the utilization of information for policy development and implementation?

A major challenge is to bring the information to those who can best use it for policy and decision-making purposes, and to ensure that it is properly interpreted and used. Policy decisions are not based only on “evidence”, but valid data can be a critical input. Some countries have shown the way in how to build bridges between data collection and analysis and decision-making. Leaders of change in education can learn much from the experience of organizations such as the Canadian Health Services Foundation¹¹, the Health Foundation in England¹² or the Center for Advancing Health in the USA¹³ which show that knowledge brokering and exchange can be carried out systematically. Lower income countries may not be able to afford the investments that have been made in Canada, the United Kingdom or the USA, but low-cost actions are feasible; not doing anything to inform decisions costs more.



3.5 Governance and planning

The success of a radical transformation in any complex system requires strong leaders and policy entrepreneurs (champions) as well as solid governance, e.g. planning and policy/decision-making rules and processes, regulation and accountability mechanisms, at all levels of implementation of the proposed changes. To change the education of health professionals is not a mere technical exercise. It is a very political process that takes place in a complex environment; it affects the values, objectives, power and interests of numerous stakeholders. A new model for the education of health professionals supposes major cultural and organizational changes, and it requires important new investments. All this requires a strategic approach to transforming and scaling up, and some form of planning, in terms of clearly defining the expected results, what needs to be done to achieve them, how it will be done and with what resources. A plan is certainly useful but far from sufficient: stakeholders must commit and stay committed to implementing it, resources need to be mobilized, and political support maintained. This is where leadership and good governance become critical to progress on education reform, which is “a road strewn with obstacles” (Jolly, Louis and Thomas, 2009).

The leaders who are most needed are those who can grasp the multiple dimensions and interconnections of the components of the transformation and scaling up of education and training, as well as the complex relationships between the various stakeholders. Governance also needs to be adjusted. By this we refer to the formal and informal rules and norms that define roles, responsibilities, and policy and decision mechanisms in a certain sector (Brinkerhoff and Bossert, 2008).

Good governance results from the combination of institutional and organizational mechanisms that support change, and the technical and political capacity and will to conduct change. Often governance in matters relating to the health workforce is concentrated in ministries of health at levels where capacity is weak, as is the case in sub-Saharan Africa, which has the greatest number of countries experiencing a human resources crisis (Nyoni and Gedik, 2012).

Lack of good governance is an open door to ineffectiveness, haphazard and politically motivated decisions, lack of transparency, accountability and corruption. “Smart governance” in health has been defined as governing by collaborating, by engaging citizens/stakeholders, by mixing regulation and persuasion, through independent agencies and expert bodies, and by adaptive policies, resilient structures and foresight (Kickbush, 2012). This is a major departure from top-down, centralized governance based on coercion, and it requires leaders who understand change, who believe in it and who can engage others.

3.5.1 Key Policy Issue #1:

Will a national education plan to produce and retain graduates have an effect on quantity, quality and relevance?

Should the plan be developed in consultation with all stakeholders? Must the plan be informed by the needs and absorptive capacity of the labour market, and be aligned with national HRH plans and national health plans?

11 Canadian Foundation for Healthcare Improvement: <http://www.chsrf.ca> (accessed 29 November 2012).

12 The Health Foundation Inspiring Improvement: <http://www.health.org.uk> (accessed 29 November 2012).

13 Centre for Advancing Health (CFAH): <http://www.cfah.org> (accessed 29 November 2012).

3. WHAT ARE THE KEY POLICY ISSUES AND POSSIBLE RESPONSES?

In reviewing the literature for evidence, four different interventions have been identified and analysed¹⁴ which include the following:

- Intervention 1:** The mere existence of a health professionals' education plan.
- Intervention 2:** A health professionals' education plan that is integrated into a larger national health plan/policy.
- Intervention 3:** Strong collaboration efforts between all stakeholders involved in education plan development.
- Intervention 4:** Strategic steps in considering and taking into account the workforce market needs and absorptive capacities for the education plan development.

Concerning **Intervention 1**, the question of the necessity of an education plan for health workers to improve their quantity, quality and relevance still raises debate. First, to justify focusing on HRH and thus on the necessity of planning, the main issues related to HRH must be highlighted such as: imbalances in numbers, inadequate or inappropriate training, and the poor functional and geographical distribution, (Hall, et al., 1998).

These issues leading to the HRH crisis worldwide might be addressed through HRH plans and education planning among others (Mullan, et al., 2010; Ueffing, et al., 2009; Kabene, et al., 2006; Dovlo, 2005). It is well documented that education plans have to be defined according to national health policies, standards and/or recommendations (Gaye and Nelson, 2009). One concrete example is Liberia's *Emergency Human Resources for Health Plan* developed in 2007 (Varpilah et al, 2011), for which training reforms were defined within a nation-wide reform. A number of authors have mentioned the relevance and necessity that an education plan must be part of a national health plan and aligned with national health goals and objectives (Hall and Mejia (1998), Dussault and Dubois (2003), Hofler (2008), Stordeur and Leonard (2010), Schiffbauer et al. (2008)). Moreover, an education plan is nearly always part of a broader HRH plan. Justifications mentioned by Dussault and Dubois (2003) imply that a HRH education plan is useful to facilitate planning, to support decision-making, to provide a framework for evaluating performance, and to let professionals and other sectors rally around health problems and to legitimize actions. For instance, in the case of shortages due to the migration of health workers and HIV/AIDS (South Africa) or in countries in conflict (e.g. Afghanistan, Southern Sudan) improved education of health workers and professionalization of management and leadership have been identified as requirements to address HRH imbalances (Schiffbauer, et al., 2008).

Nevertheless, HRH plans might present some limitations (Simoens and Hurst, 2006 – Box 3, p. 20) and thus, labour market forces can be more effective than HRH planning (thanks to lower costs, non-governmental accountability involved, and because other sectors and/or several countries apply this kind of regulation – Hall, et al., 1998). For instance, Buchan, et al. (2011) concluded that, in Brazil, it was not necessary to develop “a single detailed long term ‘plan’ or strategy for HRH change”. In Belgium, the education plan for HRH failed and led to HRH shortages in the Flemish Community, whereas the French Community was beyond its quota (Stordeur and Léonard, 2010). Instead of developing a national HRH education plan to regulate numbers and skills of health workers, focusing on Human Resources Management within health facilities has been highly successful in the USA (Buchan, 2004 – the magnet hospital example).

Finally, Simoens and Hurst (2006) also presented several failures of health labour market forces (physician monopoly power thanks to licensing and regulatory requirements, pay structures potential excess demand due to modified price signals that health insurance may imply, induced demand by asymmetry of information and reimbursement structures). That is why HRH planning seems to be relevant according to some situations and will thus keep being useful: for instance, Hall, et al. (1998) define criteria for selection of HRH planning rather than labour market forces to determine at least the numbers of health workers. Interventions presented in the following paragraphs outline three main criteria that should lead to relevant and efficient HRH education plans: integration in the national health policy, strong collaboration between all stakeholders and definition of a plan that answers assessed needs and absorptive capacities of the national health labour market.

Regarding **Intervention 2**, it is well documented that education plans have to be defined according to national health policies, standards and/or recommendations (Gaye and Nelson, 2009). One concrete example is the Liberia's *Emergency Human Resources for Health Plan* developed in 2007 (Varpilah, et al., 2011) for which training reforms were defined within a nation-wide reform. Stordeur and Léonard (2010), Hofler (2008), Schiffbauer, et al. (2008), Dal Poz, et al. (2006), Dussault and Dubois (2003) all mentioned the relevance of and need for an education plan to be part of a larger national health plan and be aligned with national health goals and objectives. Moreover, an education plan is nearly always part of a broader HRH plan.

With **Intervention 3**, this review of literature illustrates the usefulness of national intersectoral collaboration: Gaye and Nelson (2009) identify one of the major traps related to training initiatives as the: “lack of country-level coordination of health training among donors, ministries and other key actors”. Thus, they also propose promising practices related to HRH planning, such as “engaging stakeholders” and “ensuring coordination of training activities”. Several authors mentioned the necessity of strong collaboration between all relevant stakeholders (Buchan, et al., 2011; Mullan, et al., 2010; Hofler, 2008; Dussault and Dubois, 2003).

14 See <http://www.who.int/hrh/education/planning/en/index.html>: Evidence table on recommendation 10.

To rely on other countries' experiences can be one way of improving collaboration (Varpilah, et al., 2011; Mullan, et al., 2010.) The Vancouver case study (Purkis, et al., 2009) and the Afghanistan and Southern Sudan case studies (Schiffbauer, et al., 2008) well illustrate this positive impact of collaborative work between stakeholders involved in education plan development.

Eventually, **Intervention 4** reflects the necessity for HRH education plans to be based on needs and absorptive capacities of labour markets. Mullan, et al. (2010) recommended that, in sub-Saharan African countries, educational planning should focus on national health needs in order to improve the ability of medical graduates to meet those needs. Indeed, certain countries such as Liberia completed a HRH census to define Liberia's health worker needs (Varpilah, et al., 2011). Buchan et al. (2011) illustrated that in Brazil, the assessment and alignment with real needs was necessary. Another good example is the planning process based on population and health worker needs assessment undertaken in the USA (Thompson, et al., 2009). According to O'Brien et al. (2001), three different approaches are available to assess HRH needs: the needs-based approach, the utilization-based approach and the effective demand-based approach to human resources planning.

Moreover, labour market absorptive capacities must also be assessed. Relevant indicators of weak absorptive capacities in a country are underemployment, both in public and private sectors, and migration of medical workers. For instance in Mali and Benin, health workers are obliged to work in both the private and public sectors highlighting the lack of labour absorptive capacity in both sectors (Country Status Reports (CSR) of Mali, 2011, and Benin, 2009 – The World Bank). Other countries such as Belgium (Stordeur, et al., 2010), or Togo (CSR Togo, 2011) suffer from high rates of health workers' migration, illustrating the lack of jobs for health professionals both in public and private sectors. Health education plans can be used to regulate this phenomenon, often observed in developing countries (Kabene, et al., 2006). For instance, to address the over supply of medical workers in Mexico (Frenk, 1982), the medical residency programme had to be first implemented and then regulated to absorb increasing numbers of students.

There are clearly some questions for which we need to continue building evidence.

3.5.2 Key Policy Issue #2:

How to secure political commitment across political cycles, e.g. government change, substitution of ministers?

- **Should the mandate come from the government and from parliament in order to stress the political commitment to reform?**
- **How can the various national stakeholders be engaged?**
- **Is there a role for international professional associations such as the International Council of Nurses (ICN), Secrétariat International des Infirmières et Infirmiers de l'Espace Francophone (SIDIIEF), World Medical Association (WMA), World Federation for Medical Education (WFME), International Confederation of Midwives (ICM), associations of educators, e.g. Conférence Internationale des Doyens des Facultés de Médecine d'Expression Française (CIDMEF)?**
- **In the case of lower income countries, what is the role of international technical agencies (e.g. WHO), financial agencies (e.g. World Bank, regional banks, bilateral cooperation agencies), or foundations (e. g. Bill and Melinda Gates, Rockefeller, W.K. Kellogg), and how can their support be mobilized?**