

Lack of good governance is an open door to ineffectiveness, haphazard and politically motivated decisions, lack of transparency and 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.

### **2.5.1 Key policy issue 1: What should be the process of designing and planning for the transformation and scaling up of the education and training of health professionals?**

What should be the respective roles and responsibilities of the ministries of health and education, or other public agencies or professional organizations, such as licensing and certification bodies, or education institutions? What are the various options in leading the design, planning and assessment of transformation and scaling up? Are they to mandate an independent body, such as a commission of enquiry in the British tradition; to create a technical taskforce or a working group representing the major stakeholders; or should another option be considered which is more in sync with the administrative traditions of the country?

### **2.5.2 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 Faculté de Médecine (CIDMEF). In the case of lower income countries, what is the role of international technical agencies (WHO), financial agencies (World Bank, regional

banks, bilateral cooperation agencies), or foundations (Bill and Melinda Gates, Rockefeller, W.K. Kellogg), and how can their support be mobilized?

### **2.5.3 Key policy issue 3: What governance mechanisms can support better reform?**

What governance mechanisms can support better reform, e.g. a system of rules and standards adapted to new conditions, policy development and decision-making processes, data collection and analysis to assess future health workforce needs, engagement of stakeholders, and communication strategies?

### 3. Recommendations to transform and scale up health professional education and training

#### 3.1 Education and training institutions

##### 3.1.1 Faculty development

###### RECOMMENDATION 1

**Education institutions should develop and update teaching and clinical skills relevant to the evolving health-care needs of communities. This process should be linked to the promotion and rewarding of teachers and trainers.**

Quality of the evidence: Moderate

Strength of the recommendation: Conditional

###### RECOMMENDATION 2

**Governments, funders and accrediting bodies should implement higher education policies for mandatory faculty development programmes that are aligned with the goal of relevant health professional education (in developing teaching and clinical skills) and linked to funding, promotion and reward.**

Quality of the evidence: Moderate

Strength of the recommendation: Conditional

###### RECOMMENDATION 3

**Innovative expansion of faculty, through the recruitment of community-based clinicians and health workers as educators.**

Quality of the evidence: Moderate

Strength of the recommendation: Conditional

#### ***Summary of the evidence***

Effective teaching influences student performance at various levels: acquisition of competencies, attrition rates, and future practice outcomes. Recruiting educators with the right competencies is therefore critical. Ensuring that their initial competencies are

maintained and developed is also a prerequisite to effective teaching. Faculty development programmes will support a shift towards evidence-based education and innovative approaches in teaching that have proven to be effective in training health professionals. For instance, e-learning has been used to train health professionals in several professional fields (medicine, nursing, dentistry and pharmacology) in both high-income countries and resource constrained ones. It usually takes the form of an additional tool that complements traditional learning strategies, although there are experiences of pure e-learning and blended learning. Its main benefit is that it allows students to access documentation and learning materials that otherwise would be difficult to retrieve. The evaluation of the effectiveness of e-learning, whether quantitative (e.g. based on test scores) or qualitative (e.g. based on surveys) is generally positive. This method can contribute both to the acquisition of basic health knowledge and practical competencies. The feedback from students is very positive (Frehywot and GW MEPI-E-learning TWG team 2012). Additionally, e-learning is a very useful tool to overcome barriers to access health training, such as distance or scheduling difficulties.

Faculty development programmes can be an asset in recruiting and retaining teachers as they offer valued professional development opportunities. There is evidence that, in most countries, educators of health professionals are insufficiently prepared as teachers and trainers, even though their clinical knowledge and skills may be good. Their capacity to prepare future professionals for evidence-based practice, interdisciplinary team work, or management and leadership is often deficient. There is, however, little evidence on how to develop health professionals for their new roles.

Faculty development should cover key areas such as clinical teaching, small group facilitation, large group presentations, feedback and evaluation, personal and organizational development, leadership and scholarship, and change management. All categories of teachers and trainers should be targeted. Strategies and formats of faculty development can vary widely as long as they are adapted to the specific needs of the country or institution. They can include punctual and continuing activities, be work-based or classroom-based, face-to-face, via the Internet or tele/videoconferences, self-learning, mentorship and communities of practice, or a combination of all of these. Whatever the strategy, organizational structures and mechanisms, such as continuing professional development units, should be created or developed. However, the cost effectiveness of different faculty development programmes is yet to be determined.

### **Commentary**

Policy-makers should be aware that making faculty development programmes mandatory will entail important cultural and organizational changes for most education institutions. Faculty development should be promoted as a tool for improving the performance of education programmes in terms of their quality and relevance. It will be more readily accepted if the leaders of institutions and representatives of the teaching staff are engaged in the planning of faculty development policies. Such policies should reward change both at the level of the institution and the individual. Financial and professional incentives will facilitate the implementation of these programmes as well as adherence to their objectives. There is no blueprint for the development of incentive systems, but there is consensus that they are needed and that if some basic steps in developing programmes are followed, they can facilitate success (Box 4). Programmes and strategies should be evaluated and, as far as possible, based on evidence of their effectiveness.

Faculty development requires a supportive work environment and therefore closer links between education institutions and the health services system; these will ensure that educational institutions are more responsive. Finally, programmes should be submitted to an accreditation process to ensure that quality is maintained and continuously enhanced. Care must be taken to focus on outcomes rather than only on process, so that each institution keeps the flexibility to adapt its programme to its specific needs.

#### **Box 4. Important steps in designing a faculty development programme**

- Understand the institutional/organization culture
- Determine clear goals and priorities
- Conduct needs assessments to ensure relevant programming
- Development different programmes to accommodate diverse needs
- Incorporate principles of adult learning in instructional design
- Use a diversity of educational methods
- Promote 'buy-in' and market effectively
- Prepare staff developers
- Evaluate and demonstrate effectiveness
- Encourage faculty initiatives
- Ensure ability to conduct meaningful formative and summative assessment of student performance

Source: Steinert (2009).

International financial and technical organizations can help by developing and supporting international inter-professional innovative experiences in faculty development, and facilitate the exchange of good practices and lessons learned, for example by providing open-access, web-based faculty development programmes.

### 3.1.2 Curriculum development

#### RECOMMENDATION 4

**Education and training institutions should adapt curricula to population needs through the definition of core competencies and their incorporation into core curricula, in both undergraduate and postgraduate programmes.**

Educational institutions regularly review and update core competencies required to meet the evolving needs of populations, health systems and health-service delivery. They also regularly review curricula and programme delivery to determine if the programme prepares students to attain the core competencies needed.

Quality of the evidence: Moderate

Strength of the recommendation: Conditional

#### ***Summary of the evidence***

In a rapidly changing environment, competencies quickly become obsolete, and therefore need to be continuously adapted. Curricula, the backbone of the education of health professionals, must reflect changing needs. To do so, institutions need formal mechanisms to assess new needs and the changes curricula may require in terms of content and methods of learning. New core competencies may be needed and existing ones may have to be adapted. Community-oriented curricula and problem or competency-based learning are known to offer good adaptation capacity. These types of curricula tend to emphasize community placements and learning, exposure to various types of settings such as rural or poor areas with unmet service needs, contacts with patients from diverse cultural backgrounds, and work experience at all levels of the health-care delivery structure.

The adaptation of curricula to urgent and or specific health needs (e.g. post-catastrophe scenarios, post-conflict environment, HIV/AIDS, tuberculosis, cancer) shows a significant increase in competencies, improved knowledge of specific topics, and increased capacity for intervention planning and implementation.

### ***Commentary***

Critical factors for the process of curriculum adaptation include commitment by senior management and academic leaders, motivation of faculty and support staff, mechanisms to facilitate the evaluation of curricula and the implementation of necessary changes, including freeing staff time and adequate funding.

### **3.1.3 Simulation methods**

#### **RECOMMENDATION 5**

**Simulation methods should be used more systematically in the education of health professionals in high-income countries.**

Quality of the evidence: High

Strength of the recommendation: Strong

#### ***Summary of the evidence***

This specific recommendation is made because reasonable evidence is available to support it. Simulation methods are useful in helping students to acquire skills and to accelerate learning. They allow for a variety of situations and are specially designed for the development of manual skills that can only be learned through repetition. Simulation methods seem to improve competencies and performance, as well as learner satisfaction. The implementation of simulation methods supposes the availability of experienced staff to teach, supervise and evaluate, as well as space and equipment. It may also require access to proxy or real patients. They are particularly useful to practice procedures that otherwise could not be performed for practical or ethical reasons.

#### ***Commentary***

The introduction of such methods in the pedagogical arsenal should only be dictated by their expected positive impact on the acquisition of competencies. As they require additional resources, their cost-effectiveness needs to be measured. More information is needed on the utilization of these methods, their comparative advantages and risks, and their impact on the performance of learners.

### 3.1.4 Direct entry of graduates

#### RECOMMENDATION 6

**Direct entry of graduates from relevant undergraduate, postgraduate or other educational programmes into different or other levels of professional studies should be used.**

Quality of the evidence: Moderate evidence for improved retention (one study – low quality evidence) and job satisfaction.

Strength of the recommendation: Conditional

#### ***Summary of the evidence***

The current severe shortage of health workers and the maldistribution of these professionals have led to the need to rapidly and effectively increase the number of registered health professionals. A number of these programmes already exist in Australia, the United Kingdom and the USA. They appear to produce good outcomes in terms of critical thinking, pass rates for national examinations, professional practice, clinical competence and leadership.

Most of the evidence is from non-randomized parallel two group comparisons with no pre- and post-tests. Findings are consistent in showing equivalence in quality outcomes with potential to increase quantity outcomes.

In addition to scaling up numbers, efforts should be made to increase the diversity of students to better respond to the diversity of populations. Targeted admissions policies can be used to ensure entry by students from underserved populations, whether on the basis of ethnicity, language, social class, urban-rural distribution or a combination of all these. Where targeted admissions policies are used, support mechanisms must be in place to ensure that the students are able to complete programmes. These may include adjustments to the curriculum and to the educators' teaching skills, learning methods and financial support.

#### ***Commentary***

There are other options to increasing the number of health professionals which also address the areas of quality and relevance. These are outlined in the table in Annex 2. They cover the areas of: graduate entry programmes; accelerated programmes;



Registered Nurse (RN) to Master of Science in Nursing (MSN); and direct entry. The quality of the published supporting evidence varies across these programmes for the different categories of health workers with the graduate entry programmes for medical students, but it was agreed that there was sufficient evidence to recommend direct entry of graduates from relevant undergraduate, postgraduate or other educational programmes into professional studies.

### 3.1.5 Admissions procedures

#### RECOMMENDATION 7

**Targeted admissions policies that seek to increase the ethnic and geographical diversity of students should be supported by mechanisms to ensure completion of education programmes**

**Quality of evidence:** Moderate

**Strength of the recommendation:** Conditional?

#### *Summary of evidence*

There are admissions systems that build on previous learning experience and provide a way for individuals from relevant undergraduate, postgraduate, or other educational programmes to make the transition to higher levels of health professional studies. This has been tried in nursing and midwifery programmes, but the mid- and long-term effects of direct entry programmes are only now being studied. In all cases, the recruitment of high-quality students implies the existence of a solid secondary education system and attractive study and future professional life conditions.

There is almost unanimous agreement in the literature about the association between students' rural backgrounds prior to admission to health professions. Broader consideration of the influence of entry criteria on eventual career choice would also look at the increasingly complex mixture of financial variables on entry. Entry requirements may be modified according to the financial contribution the student is prepared to make. Bonding or other long-term commitments may also impact on the attributes and qualities of students on entry, and the financial and other commitments on exit. The effect of these changes on the proportion of graduates choosing general practice as a career remains unclear as does training and rural employment

subsequent to that training, although many other factors influence the choice of location and career. This evidence is summarized and characterized as strong (in the case of rural origin) or weak (in the case of ethnic diversity) in the review article previously cited (Walker et al. 2012).

### **Commentary**

There is an extensive literature on recruiting and retaining trained health workers for service in rural and remote areas, and this proved to be the most frequently encountered theme in the literature. Less well documented are published studies on minority groups, nursing and allied professions and medical mid-level providers.

Several studies have shown that health professionals do not always have the social and cultural profile and competencies corresponding to the needs of the population they serve, because most come from a different background: "Health professional students are disproportionately admitted from higher social classes and dominant ethnic groups." (Frenk et al. 2010:24.) Admissions of students from rural or poorer areas and, in some countries, of women are insufficient to produce a balanced workforce. There is, however, a substantial amount of evidence that shows the association between rural background before health professional training and rural practice following professional training. A Cochrane review from which most of the evidence which links practice in rural areas to admission of students from rural areas is cited in *Increasing access to health works in remote and rural areas through improved retention* (WHO 2010b) and states that "It appears to be the single factor most strongly associated with rural practice." (Grobler et al. 2009.) The evidence for ethnicity for practice in a rural area is not as strong, i.e. that coming from an ethnic minority group or being a member of an underserved population leads to practice in a rural area. However, if one wishes to change the dominant trend of recruiting based almost solely on academic qualifications, then it will be necessary to not only choose potential health professionals from rural and underserved areas but also, where necessary, from ethnic groups that best match the populations to be served. Reed (1999) argues that although under-represented minority applicants to medical school tend to have lower grade-point averages and admission test scores, success in postgraduate training as a practising physician is equivalent to that attained by the majority of students. This can be corrected by the proactive recruitment of underrepresented groups and by selection procedures that give more weight to social skills.

There is a considerable literature on admission criteria as a predictor of performance within the training experience, which takes as the end point course completion or attainment of a qualification (sometimes attainment before course completion). This, therefore, does not directly bear on the outcomes of interest, that is, the quantity, quality and relevance of graduates. There are strong indications that the predictive power of pre-admission academic performance declines as students progress through their basic training and postgraduate training.

### 3.1.6 Streamlined educational pathways and ladder programmes

#### RECOMMENDATION 8

**Streamlined educational pathways, or ladder programmes, for the advancement of practising health professionals, should be used in both undergraduate and postgraduate programmes.**

Quality of evidence: Low, but in the acceptability and feasibility survey, about 92 per cent of all respondents agreed that the introduction of streamlined educational pathways and ladder programmes was acceptable but rather complicated to implement, only 78 per cent stated that it could be feasible. The mean score for acceptability is 6.92 and for feasibility 5.86. Respondents at the national and district levels ranked this intervention as more acceptable and equal (95 per cent) than at the regional level (84 per cent).

Strength of the recommendation: Conditional

#### ***Summary of evidence***

To respond to the urgent problem of augmenting the quantity of health professionals without depreciating the quality of their education, initiatives can be taken that streamline educational pathways and adapt them to the needs of individuals already on the labour market who wish to upgrade their competencies and enter or progress in a health career. This is often difficult because of the rigid entry regulations in professional educational programmes or in the profession itself. The creation of so-called career ladder programmes for undergraduate or postgraduate programme allows individuals in lower positions, within or outside the health sector, access to training programmes which will take them step-by-step to a career in health or allow them to advance their career in health. Box 5 illustrates how it works.

### **Box 5. Career ladder case study: Maria**

Maria is 19 years old. She graduated from high school with average grades. She works in the Environmental Services department at the local hospital. She earns US\$10 per hour cleaning patients' rooms. Maria likes working at the hospital. She dreams of becoming a nurse, but she cannot afford to go to college. Through the hospital's career ladder programme, Maria can train to become a nurse's aide in less than a year. She will complete three months of classroom training in order to qualify for a position as a nursing assistant. While she works as a nursing assistant, she will learn new skills to help her qualify as a nurse extender. Her work will be closely monitored by a nursing supervisor, and she can get extra tutoring if she needs it. As a nurse extender, Maria can earn up to US\$14 per hour. She will work directly with patients, helping the nurses provide care. If Maria wants to continue her studies to become a registered nurse, the hospital will provide tuition assistance and a flexible work schedule to enable her to attend classes at the local college.

Source: ExploreHEALTHCareers.org (2007).

These programmes promote retention and help address maldistribution of health professionals (Tayag, Clavel 2011) by providing opportunities for the students to serve in underserved areas, learn by doing, and receive recognition and rewards as they acquire new competencies and experience. It allows for career progression, and is particularly used in nursing (Buchan 1999; Krugman, Smith, Goode 2000; Bjørk et al. 2007) although it is available in other fields such as physical therapy or pharmacy. Its direct costs are compensated by lower turnover and sick leave rates, and by higher levels of satisfaction among personnel (Gustin et al. 1998; Buchan 1999; Krugman, Smith, Goode 2000; Drenkard, Swatwout 2005).

### **Commentary**

Changes in the workforce generally occur much more rapidly than educational institutions can respond to them. Regulations that fix rigid professional boundaries and conditions hinder a rapid response to new needs. This is often the case in low-income countries where the need for scaling up is greater. The WHO's report *Policy guidelines on transforming and scaling up health professional education: Assessment of values and preferences of relevant stakeholders* and a survey of stakeholders showed a good degree of acceptability of career ladder programmes, although their implementation is seen as challenging: "...There is potential interest from regulators but the idea is not completely accepted by educational institutions..."; "The feasibility would depend on acceptability among different groups of health professionals. This intervention needs an agreement or consensus among all health professions." (WHO 2012:30.)

### 3.1.7 Inter-professional education

#### RECOMMENDATION 9

Inter-professional education (IPE) should be implemented in both undergraduate and postgraduate programmes

Quality of the evidence: Moderate

Strength of recommendation: Conditional

#### ***Summary of evidence***

The strategies and considerations for introducing or improving IPE have been well described in the document “ Framework for Action on Interprofessional Education & Collaborative Practice” (2). Essentially, IPE is shaped by mechanisms that can be broadly classified into those driven by (a) staff responsible for developing, delivering, funding and managing IPE and (b) Educator mechanisms (the term “educator” includes all instructors, trainers, faculty, preceptors, lecturers and facilitators who work within any education or health-care institution, as well as the individuals who support them). Developing IPE curricula is a complex process, and may involve staff from different faculties, work settings and locations. More important however, is maintaining IPE. This can be equally complex and requires careful consideration. The following key issues should be considered as priority for policy makers for introducing, improving and sustaining IPE:

- Supportive institutional policies and managerial commitment
- Good communication among participants
- Enthusiasm for the work being done
- A shared vision and understanding of the benefits of introducing a new curriculum
- A champion who is responsible for coordinating educational activities and identifying barriers to progress.
- Careful preparation of instructors for their roles in developing, delivering and evaluating IPE.

- For most educators, teaching students how to learn about, from and with each other is a new and challenging experience.
- For IPE to be successfully embedded in curricula and training packages, the early experiences of staff must be positive. This will ensure continued involvement and a willingness to further develop the curriculum based on student feedback.
- Curricula mechanisms would be fully appreciated. Health-care and education around the world are provided by different types of educators and health workers who offer a range of services at different times and locations. This adds a significant layer of coordination for interprofessional educators and curriculum developers.

### ***Commentary***

In interprofessional education, students from various professions learn together as a team. Their collaborative interaction is characterized by the integration and modification of different professions' contributions in the light of input from other professions. The hallmark of IPE is the type of cognitive and behavioural change that occurs: participants understand the core objectives and objectives of each contributing discipline and are familiar with the basic language and mind-sets of various disciplines. Prior to participating in IPE students must have basic knowledge and skills related to their own profession. IPE is an essential step in development of a collaborative health workforce. To be effective, it should be guided by shared objectives in programme content, adult learning principles and institutional support.

A well designed and implemented programme of interprofessional education can be a major factor in the preparation for a collaborative which takes into account individual and community needs. Research indicates that IPE is more effective when 1) principles of adult learning are used, such as problem-based learning and action learning sets, 2) learning methods reflect the real world practice experiences of students and 3) interaction occurs between students. Effective IPE relies on curricula that link learning activities, expected outcomes and assessment of what is learned. (5,6).

A number of principles are believed to be important in the design of IPE curricula. These are (a) relevance to learners' current or future practices 7); (b) use of typical, priority health problems that require interprofessional approaches for their solution 8); (c) interprofessional learning based on clinical practice 9) (d) learning methods which facilitate interaction between learners from different professions including small group

learning, here formats such as case-based and problem-based learning 7) have been shown to be particularly effective.

Effective IPE relies on curricula that link learning activities, expected outcomes and an assessment of what is learned. Evidence has shown that making attendance compulsory and developing flexible scheduling can prevent logistical challenges from becoming a barrier to effective interprofessional collaboration. Pre and post evaluation of IPE, whether provided through workshops or more important throughout the professional training of student health workers confirms that there is significant increase in knowledge and awareness of roles of other health professions and improved team work. These evaluations reinforce the argument that IPE should be included in pre-qualifying curricula.

Interprofessional education does not inhibit the development of professional specific attitudes. Students were actually more positive about their own professional relationships than those who qualified in previously uni-professional curricula. The benefits of developing an integrated primary care experience through IPE as well as enhancing collegial support and resources to community based and academic training have been well documented and have led to important educational collaboration and successful IPE initiatives. Furthermore, interdisciplinary community-oriented exercises during IPE offer unique opportunities for students to appreciate health problems as they occur in the community.

## 3.2 Accreditation and regulation

### 3.2.1 Accreditation

#### RECOMMENDATION 10

Accreditation of health professional education should be introduced to improve the quality of health professional education

Quality of evidence: High

Strength of the recommendation: Strong

#### ***Summary of evidence***

Accreditation is defined as a process of review and approval by which an institution or programme is granted time-limited recognition of having met certain established standards (Uys, Coetze 2012). Accreditation, if properly used, is a key tool for quality

management of professional education and for ensuring that graduates have the competencies that correspond to accepted professional standards and to the needs of the population. The alignment of accreditation with health goals is one of the four enabling actions that contribute to the scaling up of the education of health professionals (Frenk et al. 2010). It is particularly important at a time when private health professional education is proliferating, often in an unregulated environment.

There is no systematic assessment of accreditation practices worldwide; there is variation in its utilization and, in some countries, it is absent or exists only on paper. WHO data show that accreditation mechanisms “*exist in three quarters of Eastern Mediterranean countries, just under half of the countries in Southeast Asia, and only about a third of African countries*” (Frenk et al. 2010:29). Even in an integrated economic region such as the European Union (EU), there are important variations in how accreditation is conducted (Frenk et al. 2010). There does not seem to be a relationship between the Gross National Income (GNI) level of countries and whether or not they have accreditation systems (Uys, Coetze 2012). Also, private schools are less likely to undergo accreditation procedures (Frenk et al. 2010).

In some countries, accreditation is performed by the government, in others by professional councils or associations, or private agencies (Uys, Coetze 2012). Accreditation may target specific programmes or whole institutions. There is limited literature on the respective advantages and disadvantages of each modality, or on the impact of accreditation on quality improvement.

Nevertheless, it is generally considered that it can have a significant positive effect on the quality and relevance of the health workforce in that it can direct professional education in addressing the priority health concerns of the community. A global strategy that incorporates the best of all practices with clear targets and outputs could encourage regions to create and reinforce national accreditation systems.

In order to be effective, such a global system should be based on standards developed and accepted by all stakeholders. The process of accreditation should be independent and transparent so as to be a stamp of quality (Baumann, Blythe 2008). It should also be time-limited, and the accreditation system itself should be periodically evaluated.

### ***Commentary***

Accreditation, and similar mechanisms such as regular programme reviews, are well established in some countries (Australia, Canada, USA), developing in others, and



weak or absent in quite a number, particularly among lower income countries. A first action may be to raise awareness of the potential gains in quality and relevance that come with well-conducted accreditation. Political commitment to higher quality education is the first component to be considered in developing accreditation mechanisms as some educational bodies may feel that they threaten their vested interests, particularly if their objective is to sanction rather than to help institutions to improve their performance. Examples of successful practices need to be analysed and disseminated. Fostering voluntary accreditation may increase the commitment of participating institutions and the legitimacy of the whole process, which can be seen as a “social contract” between institutions and the community (Dussault 2008). Being accredited by a reputable mechanism brings status and recognition, and can be a strong incentive to maintaining high standards.

Global cooperation can help in setting standards and assisting countries in developing the capacity for local adaptation and implementation, and in facilitating information exchange (Frenk et al. 2010).

### 3.2.2 Regulation

#### RECOMMENDATION 11

**Regulation should be in place to ensure the quality and relevance of care provided by health professionals.**

Quality of the evidence: Moderate

Strength of the recommendation: Strong

#### ***Summary of evidence***

Licensure is the attribution of the right to perform certain tasks and use certain titles. Certification is the recognition of the acquisition of certain competencies. These are mechanisms used everywhere to ensure the quality of services delivered by those who have received recognition. They provide health services users with information attesting to the fact that the providers of services have followed and met the objectives of a formal process of education and training. They are prerequisites to entry into professional practices and failure to obtain them represents a barrier to non-qualified persons. If the requirements are too high, this form of regulation may limit a country's capacity to increase the number of health professionals. If they are not high enough,

they may put the quality of services delivered at risk, and if they are not regularly reviewed, as is often the case, they may be an obstacle to increasing the quantity, quality and relevance of health professionals (Uys, Coetze 2012).

In many countries, the essential components of internationally accepted regulatory good practices are missing. This is especially true in low-income countries where regulators, in particular professional councils, may lack the authority, resources or even technical capacity to ensure effective regulation. In such cases, the state should be the regulator and gradually delegate licensure and authority as professional groups' capacity develops (Dussault 2008). Care must be taken that quality assurance regulation does not restrict flexibility in the delegation of tasks or in the co-sharing of certain rights to practice. This would have negative effects such as making team work less effective, or limiting the possibility of creating new cadres who could help mitigate the shortages of certain professional groups, and provide essential care particularly to underserved populations. There is broad consensus that the regulation of health professionals education and practice is needed to ensure quality of care and patient safety, but there is no universal way of doing it.

### ***Commentary***

The lack of evidence and studies assessing the impact of health professionals regulation does not mean that there should be no regulation. General principles, guided by the public interest, can apply, but adaptation to local values and traditions is also important. In the end, whatever the modalities selected, the effectiveness of regulation will depend on how it is applied. The main challenge that policy-makers face comes from the resistance of professional groups which have been granted a monopoly control over who can practice to open the frontiers of their professional territory. Strong political commitment is needed to give access to quality and relevant care to all who need it, and to develop the workforce that can deliver it.

### **3.2.3 Continuous professional development for health professionals**

#### RECOMMENDATION 12

**Continuous professional development and in-service training of health professionals should be implemented which reflects reforms in education to address evolving population health needs, increase the coverage of services, and actively engage education and training institutions in its design and execution**

Quality of the evidence: Moderate

Strength of the recommendation: Conditional

### ***Summary of evidence***

As part of a changing health system, health workers need to keep up with the evolving health needs, policies, technologies and knowledge (WHO 2006a; Frenk et al. 2010). The exponential progress in technology, diagnostic tools and treatment methods, as well as changing population demographics and disease burden, makes updating and maintaining the knowledge and skills of health workers throughout their professional life more important than ever. Continuing professional development refers to educational activities conducted after graduation to maintain, improve and adapt the knowledge, skills, attitudes and practices of health professionals, so that they can continue to safely and effectively provide health services.

There is some evidence of positive effects, for example, improvements in knowledge, skills and attitudes, as well as in clinical practice and health outcomes (weight gain or child-carers' retention of nutrition advice), but this was not systematic. In some studies, knowledge had improved, but clinical habits had not always changed (Johnson 2012). Stakeholders' acceptability was good and access to CPD was much valued and could be an important factor in retaining health professionals (WHO 2010b).

The relative effectiveness of CPD methods depends on numerous factors, such as the intended target, the purpose (transfer of knowledge, acquisition of new skills, familiarity with a new technique), the techniques used, who delivers the training, and the subject. Reviews of studies of CPD programmes for medical professionals indicate that interactive techniques, reminders, patient-mediated interventions, outreach visits, multifaceted activities, audit with feedback, conferences, printed information and didactic activities without practice were found to be ineffective (Davies 1995; Bloom 2005). The use of case studies and a combination of techniques, including multiple exposure, was found to be more effective (Mariannopoulos et al. 2007; Forsetlund et al. 2009). Effectiveness is also increased when CPD is linked to career progress and other

educational interventions (WHO 2010b). The strength of these conclusions is limited due to the variable quality of the methodologies used in the reviewed studies, but available evidence has good face validity and indicates credible trends.

### **Commentary**

Given the diversity of objectives it can pursue and the forms it can take, CPD is difficult to standardize. Regulation in this case can be made mandatory, which is in place or being introduced in many countries, or can consist of accreditation mechanisms. In some countries, the institutions are accredited and left to decide how to organize CPD, and carry out periodic monitoring and reviewing by applying the same principles as for pre-service education.

Although warranting study, the cost-effectiveness of CPD interventions has had little attention. However, some impacts may be difficult to capture as CPD is not only an activity for knowledge acquisition or skills development, but it is also as an opportunity for health professionals to interact with other practitioners and to maintain professional and social networks, which is an important motivational factor. This is particularly important for professionals working in isolated regions (Van et al. 2008).

The following two recommendations have been extracted from WHO's *Increasing access to health workers in remote and rural areas: Global policy recommendations* (2010b) and are replicated here because of the overlap and the relevance of these recommendations to health professional education. However, the recommendations are numbered sequentially with the rest of these guidelines although the original text has been retained with its attendant numbering of the recommendation.

### **3.2.4 Exposure to clinical rotations**

#### **RECOMMENDATION A3**

**Expose undergraduate students of various health disciplines to rural community experiences and clinical rotations as these can have a positive influence on attracting and recruiting health workers to rural areas.**

Quality of the evidence: Very low

Strength of the recommendation: Conditional