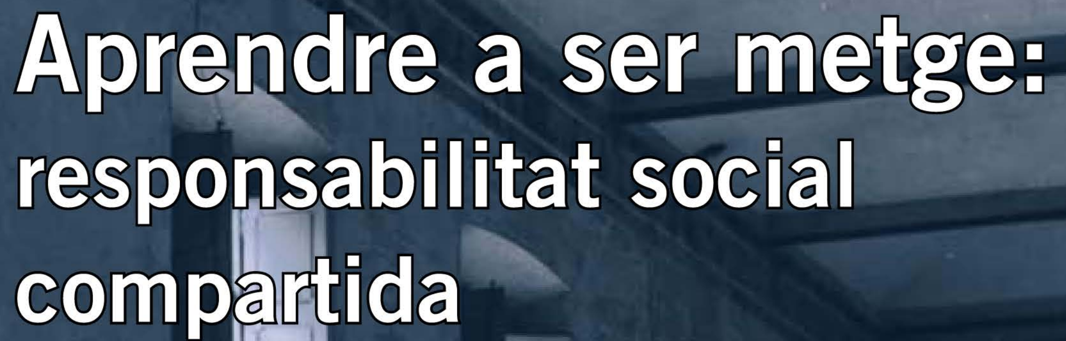

Aprendre a ser metge: responsabilitat social compartida

Learning to become a doctor: Shared social responsibility

Desembre
December 2012

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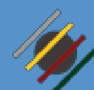

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AMEE	Association for Medical Education in Europe
CCMC	Consell de Col·legis de Metges de Catalunya
CEEM	Consejo Estatal de Estudiantes de Medicina
CNDME	Conferencia Nacional de Decanos de Medicina Españoles
COMB	Col·legi Oficial de Metges de Barcelona
ESPM	Escola de Salut Pública de Menorca
FACME	Federación de Asociaciones Científico-Médicas Españolas
FEPAFEM-PAFAMS	Federación Panamericana de Asociaciones de Facultades y Escuelas de Medicina
OMC-CGCOM	Organización Médica Colegial-Consejo General de Colegios Oficiales de Médicos
SEDEM	Sociedad Española de Educación Médica
UCH	Unió Catalana d'Hospitals
UB	Universitat de Barcelona
WFME	World Federation for Medical Education

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Agraïments

El document que es presenta no és un document de consens i no representa més que l'opinió de l'autor i de la Fundació Educació Mèdica (FEM), que el fa seu. Les institucions que l'avalen en qualitat d'auspiciadores reconeixen el rigor del document i la seva utilitat sense que això vulgui dir que comparteixin les opinions que s'hi expressen.

Cal fer referència a les diferents etapes que s'han seguit per a la redacció del treball en les quals s'han consultat diferents experts que han aportat valuoses consideracions i aportacions. El punt de partida va ser un qüestionari de 40 preguntes obertes distribuïdes en 7 apartats que van respondre 25 professionals amb un perfil sociolaboral variat encara que majoritàriament són professionals que realitzen activitat assistencial clínica. Les seves opinions van permetre captar l'estat d'opinió i la sensibilitat de la nostra societat i d'alguna manera orientar la redacció d'un primer esborrany. La segona fase, amb un document ja molt elaborat, va consistir en una *task force* d'experts que van discutir el document i va aportar suggeriments i crítiques. Aquesta activitat es va desenvolupar de manera presencial dins el marc de l'Escola de Salut Pública de Menorca el setembre del 2011. La tercera i última fase, amb una versió ja depurada del treball, va consistir fonamentalment a polir aspectes concrets del document i contrastar-lo

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This document is not a consensus document and only offers the opinion of the author and the *Fundación Educación Médica* (FEM), which endorses it. The institutions that give their auspices to it acknowledge the rigour of the document and its value, although this does not mean that they necessarily share the opinions expressed herein.

To start with, we should begin by mentioning the different phases that were followed in the drafting and preparation of this document, which included consultation with a number of different experts who each provided valuable insights and contributions. The starting point consisted of a questionnaire made up of 40 open-ended questions set out in seven sections, which was answered by 25 specialists from a variety of social-occupational backgrounds, although most of them were professionals working in a clinical healthcare-related activity. Their replies allowed us to capture the state of opinion and our society's awareness on the issue. To a certain extent they also guided the process of drawing up an initial draft. The second phase consisted in presenting a document that was already in an advanced stage of development to a task force of experts for them to discuss it and offer suggestions and criticism. This was carried out in a face-to-face setting at the Menorca Public Health School in September 2011.

Participants en la Trobada “Responsabilitat de les institucions en la formació dels metges” celebrat en el marc de l’Escola de Salut Pública de Menorca, 2011.

Participants in the meeting “Responsibility of institutions in the training of doctors” held as part of the School of Public Health Menorca, 2011.

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amb l'opinió individual d'experts en àrees específiques. És un deure agrair i reconèixer les valuoses aportacions dels participants en cada una de les tres fases citades en el desenvolupament d'aquest document: qüestionari obert, *task force* i valoració individual d'experts; per aquest motiu, és una grata obligació incloure els seus noms en els crèdits del document.

El Col·legi de Metges de Barcelona i la Sociedad Española de Educación Médica sempre han estat sensibles a les propostes de la FEM, la qual cosa cal explicitar i agrair.

També s'ha de reconèixer públicament i explícita l'interès dels Laboratoris Almirall, no només com a patrocinador, sinó per la implicació i estímul permanent mostrat pel treball realitzat per la Fundació Educació Mèdica, tot i que es manté sempre al marge de les opinions dels experts. La seva col·laboració s'ha d'entendre com a un bon exemple de compromís social.

The third and last phase, now with a very refined version of the work, involved applying the finishing touches to some very specific aspects of the document by comparing it with the individual opinion of experts in specialised areas. We would like to express our gratitude for the valuable contributions made by the participants in each of the three phases in the development of this document, namely, the open-ended questionnaire, the task force and the experts' individual evaluations. It is therefore a pleasure for us to be able to include their names in the credits for the document.

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We should also acknowledge both publicly and explicitly the interest shown by *Laboratorios Almirall*, not only in their role as a sponsor but also for the on-going interest and encouragement shown in the work carried out by the *Fundación Educación Médica*. Their collaboration should be seen as a good example of social commitment.

Nota. En tot el document, la paraula 'metge/s' fa referència a tots els professionals de la medicina; és a dir, inclou les dones i els homes que desenvolupen aquesta professió.

Presentació

Foreword

Dr. Charles Boelen
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International consultant in health systems and personnel
Former coordinator of the WHO Headquarters program of human resources for health

El món està canviant dramàticament com a conseqüència d'una combinació de factors demogràfics, epidemiològics, econòmics i polítics sense precedents que exerceixen una gran influència sobre la salut de la població. Hem d'entendre el que realment està en joc i com ens podem adaptar per preservar el nivell de salut més alt possible per a tots els ciutadans de la nostra societat. Cal definir clarament les necessitats de salut de la societat i els principis de responsabilitat social per garantir que es prenen accions rellevants i eficients sigui quin sigui el sistema, l'organització o la institució en què treballem. Si es considera que la salut és, en efecte, un estat de complet benestar físic, mental i social, llavors, hem d'actuar de forma imperativa sobre tot l'ampli ventall de determinants polítics, socials, econòmics i ambientals que influeixen en la salut. Si s'entén que la societat inclou totes les persones vinculades per valors comuns i normes des d'una comunitat local fins a una nació sencera, llavors els principals agents implicats haurien de treballar per aconseguir els valors cardinals de qualitat, equitat, rellevància i cost-efectivi-

The world is changing dramatically as a combination of unprecedented demographic, epidemiological, economic and political factors has a major influence on people's health. We need to understand what is really at stake and how we can adapt to preserve the highest possible level of health for all citizens in our society. It is essential that societal health needs and social accountability principles be clearly defined to ensure relevant and efficient action is taken in whatever system, organization, institution we work in. If health is indeed the focus as a complete state of physical, mental and social wellbeing, then acting on the spectrum of political, economic, cultural, environmental determinants of health is imperative. If society is meant to include all people bound by common values and rules from a local community to an entire nation, then major stakeholders in the health sector should work towards the attainment of cardinal values of quality, equity, relevance and cost-effectiveness in health care. It is in reference to those core values that new roles and strategies for institutions, professionals and civil society should be designed.

tat en l'atenció a la salut. Els nous rols i estratègies de les institucions, dels professionals i de la societat civil s'han de dissenyar d'acord amb aquest valors nuclears.

Òbviament, s'han d'implicar de manera activa un conjunt d'agents com les autoritats polítiques i reguladores, les organitzacions professionals, els serveis de salut, les asseguradores sanitàries, les institucions acadèmiques, la indústria i la societat civil. Però per sobre de tot cal estimular els agents abans esmentats per tal que iniciïn un procés permanent de consulta amb la finalitat de contribuir de forma important a la millora del rendiment del sistema de salut. Per exemple, la indústria farmacèutica hauria de diversificar la seva agenda per treballar a la recerca de solucions per als problemes més importants de salut pública. Els sistemes d'assegurances haurien de donar prioritat als serveis d'atenció primària de salut dins l'àmplia gamma de les seves intervencions. Les associacions professionals haurien de considerar una distribució més adequada de les funcions i de les tasques dels diferents professionals de la salut. Les organitzacions sanitàries haurien d'estimular un procés ininterromput des de la primera línia d'atenció sanitària fins a la més sofisticada i la interacció entre elles. A més, la societat civil i els ciutadans haurien de compartir les noves responsabilitats en l'atenció de la seva pròpia salut i ser més conscients de la importància dels seus estils de vida sobretot en temps de restriccions econòmiques.

Obviously a variety of health stakeholders, such as policy making bodies, professional associations, health service organizations, health insurance companies, academic institutions, industry and civil society, must be actively involved. Most importantly, a momentum must be created by which all above-mentioned stakeholders enter into a permanent consultative process to make a greater contribution to the overall performance of the health system. For instance, the pharmaceutical industry would diversify its agenda to work on solutions to important public health problems. Insurance schemes should privilege covering primary health care services within the wide range of their interventions. Professional associations should consider a more appropriate distribution of roles and tasks among the broad spectrum of health workers. Health organizations should encourage a seamless continuum and interaction from the first line of care onwards to the most sophisticated one. Also, civil society and citizens should share new responsibilities in protecting their own health by being made more aware of the importance of their lifestyles particularly in times of financial constrains.

Among those stakeholders, health professionals and academic institutions seem to be privileged partners to undertake a system approach for health reforms. The range of competences of health professionals needs revisiting by an in-depth analysis of current and anticipated health needs and

Entre aquests agents, els professionals de la salut i les institucions acadèmiques semblen ser els més adequats per iniciar un procés de reformes en l'àmbit de la salut. Cal revisar les competències dels professionals de la salut a través d'una anàlisi en profunditat de les necessitats actuals de salut i les previsibles en el futur i dels reptes socials així com de les expectatives dels pacients i ciutadans: per exemple, un abordatge més centrat en la persona requereix serveis coordinats per atendre les necessitats integrals d'un individu, sobretot en moments en què les malalties cròniques i múltiples problemes afecten les poblacions envellides. La facultat de medicina té un paper clau en l'adaptació de les seves funcions educatives, de recerca i de prestació de serveis de salut als reptes del sector sanitari. Caldrà una transformació important per a la qual poden ser útils els principis i estratègies de responsabilitat social exemplificats en el *Consens global per a la responsabilitat social de les facultats de medicina*, www.healthsocialaccountability.org.

En el context de crisi econòmica i d'incertesa política, les expectatives dels ciutadans només es podrien assolir si cada agent de salut esdevé més conscient i més responsable de les conseqüències de les seves pròpies accions. El punt de vista ecològic, que consisteix a pensar que el comportament de qualsevol persona contribueix, en part, de forma positiva o negativa al benestar de la Terra, també s'aplica a cada actor de la salut en relació amb la salut de la societat.

challenges in society as well as expectations of patients and citizens: for instance, a more person centered approach requires coordinated services to cater for comprehensive needs of an individual, particularly at times when chronic diseases and multiple discomfort affect aging populations. The medical school is also a key player by the adaptation of its education, research and health care delivery functions to prevailing challenges in the health sector. It will require important transformation which principles and strategies of social accountability will assist achieving, as exemplified by the *Global Consensus for Social Accountability of Medical Schools*, www.healthsocialaccountability.org.

In the context of economic crisis and political uncertainty, citizens' expectations can only be met if each health actor becomes more aware and accountable for the consequences of its specific deeds. The ecological viewpoint consisting to think that anyone's behavior contributes in part positively or negatively to the earth's wellbeing also applies to each health actor regarding society's health. This ethical paradigm is of utmost important for human development in the future, ethics being understood as the quality relationship with others, being individuals or entire society, and eventually the planet. Recognition of excellence should be awarded to institutions able to demonstrate their direct and indirect impact on health of the public. At national level, new norms and procedures for evaluation and accreditation

Aquest paradigma ètic és el més important per al desenvolupament humà, i s'ha d'entendre l'ètica com la qualitat de les relacions amb altres, siguin els individus o la societat en el seu conjunt o eventualment el planeta. El reconeixement de l'excel·lència s'ha d'atorgar a les institucions que siguin capaces de demostrar el seu impacte directe i indirecte sobre la salut de la població. A escala nacional, s'han de dissenyar noves normes i procediments per a l'avaluació i l'acreditació així com per al seu adequat reconeixement. La globalització exemplificada per la ràpida disseminació d'idees i fets, l'aspiració a una transparència més gran i la cerca dels millors serveis possibles de forma comparativa i competitiva és un repte i una oportunitat per tal que els agents de salut reexaminin de forma crítica la seva posició i trobin noves vies cap a l'excel·lència en el context d'un desenvolupament sostenible de salut.

should be designed and rewards provided accordingly. Globalization, exemplified by the rapid dissemination of ideas and facts, the aspiration for greater transparency and the search for best possible services by comparison and competition, is a challenge and an opportunity for health actors to critically reexamine their position and find new pathways to excel in sustainable health development.

Learning to become a doctor: Shared social responsibility

1

Social responsibility of the Institutions with regard to doctors' education and competencies

The first decade of this new millennium has undoubtedly been the gateway to a new era. The industrial society of the last century has undergone a transformation into the knowledge society, in which the information and communication technologies (ICT) have globalised the planet. Despite the acceptance of the idea that the body of knowledge is globalised, it

Spanish citizens expect that the Government and the health providers will assure the quality of the healthcare service received

is clear that healthcare itself is not and different models coexist with different guarantees for citizens. Although around the world there are different realities as regards healthcare, Europeans in general and the Spanish in particular expect the government and professionals to work together to maintain and continuously improve the highly-rated health care system we currently enjoy.

We can only have what we can afford

However, this expectation which most of us consider to be realistic does not match the perspective offered by the current situation. In the countries that accepted the principles of social democracy established in the last century, there exists a general feeling that citizens have a right to unlimited healthcare. This is perhaps because that was what was freely decided on in some moment of dire need or unthinking economic euphoria. Yet, these governments, which want to provide a healthcare service of the highest possible standards, can only offer a healthcare system that is sustainable or, to put it another way, a healthcare system in keeping with the tax system. We can only have what we can afford. Likewise, doctors and other healthcare professionals cannot offer citizens unlimited health, simply because it is beyond them to do so. A doctor can only provide a competent professional act, with the commitment of putting the patient's interests before his or her own, which is a fundamental aspect of the confidence that the patient places in the doctor. Together, the healthcare system and doctors can and must offer the best healthcare possible at all times and in all places; this extremely valuable guarantee is the only thing that can be offered.

At this time, in which the economic crisis is getting worse and the demands from society are greater than ever, we can only search for solutions in the values prevailing in this new era, that is, in knowledge. The knowledge that is in books, in universities or institutions only becomes useful knowledge if

it has been incorporated and is used by people. The greatest assets that the healthcare system has today, in the middle of this crisis of both the economy and of values, are its professionals – the doctors who are capable of upholding and transmitting the values of the system. These values can be stated as three fundamental principles: the Principle of primacy of patient welfare, the Principle of patient autonomy, and the Principle of social justice [1-2]. If there is something that is now more relevant than ever before, it is having doctors, healthcare professionals, who are capable of offering the most competent and committed medical act possible. Whether such doctors are available or not lies in the hands of those who are responsible for their education.

A hundred years ago the *Flexner Report* [3] revolutionised medical education in North America and laid down the path it was to follow throughout the twentieth century. His report had an influence on the process by which all North American medical schools became university faculties. It established the notion that medical expertise was built upon the basis of scientific knowledge, which entailed the development of an inquisitive mind and a mental attitude similar to that of a researcher. Moreover, the report established the idea that this expertise also required clinical experience. Due to the profound, long-lasting impact that the *Flexner Report* has had, it comes as no surprise that, on the centenary of its publication, the Carnegie Foundation has released a new report about the state of the art and the current issues in need of reform.4 The considerations made in the new Carnegie Foundation report have reached Europe at a time when we are wholly immersed in the Bologna process, which covers the entire university system and thus also affects medical studies. Cooke et al. [4] considered that, despite the multiple advances that were achieved in the last century, the North American educational system can be criticised on a number of points, such as: being too inflexible and too long; not focusing on the learner; the existence of a rift between learning formal knowledge and clinical experimental knowledge; certain gaps in its content (population healthcare, healthcare systems, non-clinical roles of doctors, values of the profession); lack of a longitudinal direction (logical progression?) running through the clinical experiences stemming from the hospital context in which they are produced; and other critical points that are not far removed from those to be found in the training of doctors in our country. In their report, Cooke et al. [4] give priority to four aims, as educational emergencies:

Knowledge only becomes useful if it has been incorporated and is used by people

- Standardisation of learning outcomes together with individualisation of the educational processes.
- Integration of the acquisition of formal knowledge with the acquisition of clinical experience.
- Development of inquisitive mental habits and the motivation to innovate.
- Formation of the professional identity.

Being a doctor involves something more than just offering patients effective care

Furthermore, reference must be made to the goals of medicine, since calls have often been made (and usually ignored by the educational institutions) to redirect the objective or objectives that medicine should pursue. Thus, the Hastings report (2001) [5], which is the paradigm of these considerations, is based on the premise that what is at stake are not just the means of medicine (technologies, economics, policies, etc.) but rather its *goals*, which it states as being four:

- The prevention of disease and injury, and the promotion and maintenance of health.
- The relief of pain and suffering caused by maladies.
- The care and cure of those with a malady and the care of those who cannot be cured.
- The avoidance of premature death and the pursuit of a peaceful death.

In conceptual terms the Hastings report does not really add anything new to what was already included among the values of medical professionalism. Part of its significance, however, lies in the fact that it draws attention to the current depersonalised behaviour seen in medical care in the community, while also underlining the fact that being a doctor involves something more than just offering patients effective care.

Considering the goals of medicine from a different point of view changes the order of priorities for the future, both in biomedical research and in the design of healthcare systems; it especially affects the training of healthcare personnel in general and of doctors in particular. Today medicine still focuses on the disease and hence doctors know far more about illness than about health. As regards disease, we know a lot more about the pathologies that interest the developed world than about those that have a greater morbidity rate among the world's population, in a ratio that was defined by the *Global Forum for Health Research* [6] as being 10/90. Moreover, of this 10% of prevalent diseases that affect developed countries, we are far better at managing acute processes than chronic ones. All of these are reasons that justify a rethinking of priorities both in research and in the design of healthcare systems, in addition to the selection [7] and training of

healthcare workers. In this regard it has already been remarked how important it is for prospective doctors to understand and capture the social, environmental, and personal characteristics of patients, the complex healthcare systems that are also undergoing a phase of reconsideration, and the basic biological processes [7]. The commission of 20 experts led by J. Frenk [8] in 2010 offers an excellent description of the current situation in which many of the shortcomings that were detected would have found solutions had it not been for the *tribalism* of the professions involved (that is to say, the tendency of different professions to act in isolation or even to compete with the others). Its findings also stress the need to redesign the institutional strategies used in the training of healthcare professionals if we want to achieve a positive effect on health indicators. Additionally, Frenk gives an accurate summary of the disagreement between the new challenges that have to be faced by the training of healthcare professionals and the fact that the traditional educational system is anchored in the past. The latter, however, cannot be held entirely responsible, since professional *tribalism* has become a hindrance that makes it difficult to accomplish the goals set for the population's healthcare.

In the report that led the way to the concept of *Social Security* in 1942, Beveridge [9] pointed out that he saw disease as only one of the five "giant evils" to be eradicated.[a] It must be remembered that *Health* and *Welfare* are complex states that in any case are not the opposite of disease. In no way whatsoever should medicine seize for itself, let alone manipulate, the concepts of *health* and *welfare*, which belong to citizens – and it is they, and they alone, who should have full responsibility for them.

Today medicine still focuses on the disease and hence doctors know far more about illness than about health

Knowledge, like everything, can be used for good or ill. Deciding in each situation or moment whether it is being used well or badly, that is, issuing a judgement or evaluating it, requires a standardised system of comparison. The action of doctors, or more precisely their conduct, is part of the framework of values of the professions. Yet, the framework of law used in most English-speaking countries, based on Common Law, is not the same as that generally used in continental Europe, which is based on

[a] According to the Beveridge report, the five ills, or "giant evils", to be eradicated in a society that aspires to accomplish social justice are: Want, Disease, Ignorance, Squalor and Idleness.

Patients capable to assume responsabilities are not satisfied being passive subjects dependent on the norm

the Napoleonic Code.[b] Spain and other countries with Latin-based cultures feel comfortable with the law, with norms, and with the establishing of norms, and in the medical sphere norms are set out in the deontological code. Yet, the culture of English-speaking countries that is becoming increasingly more dominant in the bio-sanitary field (and which has no qualms about combining individual freedom and social responsibility) has generated a number of messages that have gradually caught on and transformed propositions that were up until very recently unthinkable in our cultural environment. This is the case not only with regard to medicine, but also throughout the whole of society. Since the members of today's democratic society are not satisfied with being passive subjects, dependent on the norm, and are prepared to exercise their responsibilities, doctors' codes of conduct will have to incorporate the concept of *Social Responsibility*, which of course goes far beyond the field of healthcare.

The fact that we have entered a new age means that everything must be reviewed and, additionally, it must be done incorporating the principle of saving, or at the very least that of cost-effectiveness. The current socioeconomic situation forces us to be aware of the scarcity of resources or, better still, of the fact that they are in limited supply. The now fully-consolidated institutions involved in the education/training of healthcare professionals (Universities, Healthcare institutions, Training centres, Professional Associations, Scientific Societies and Academies or Healthcare authorities) will continue to be useful as long as they remain capable of introducing, and accepting, the changes and modifications that correspond to them at their level. There are occasions on which it would be worth limiting oneself to observing and adapting what other institutions in other places around the world are doing. One particular example is the document called *Tomorrow's Doctors*, [10] that was drawn up by the *General Medical Council* in the United Kingdom in 1993. This document established the knowledge, skills and behaviours that medical students

[b] The law in continental Europe is based on a "code" (the Napoleonic Code, 1804), whereas in the English-speaking territories the law has been based on jurisprudence, or precedents, since medieval times. In the continental legal system, the law is the maximum regulatory manifestation, is based on the principle of legality, and the judge is the person who executes the law and cannot make individual interpretations of it. In the English-speaking countries, the law is one of the components that make up the *Common Law* (tradition, natural law and law); it is based on the *rule of law* (*rule of law not of men*), and it is the judge who must interpret the *Common Law*.

must learn and demonstrate in order to be able to graduate from faculties of medicine in the UK. Since *Tomorrow's Doctors* was first published, it has already been revised twice, the last modification being carried out in 2009. This version take into account the changes in the country that have led to important modifications, which, for faculties and students, came into force in the academic year 2011-2012.

This document seizes the opportunity presented by the crisis of values to highlight a reflection that perhaps many others have also posited. The question is whether all the institutions, which to some extent and at some time or other are responsible for the education, training and maintenance of doctors' competence, have incorporated the concept of *social responsibility* into their practice or whether, in contrast, they just update their institutional mission and the processes used to achieve their goals in order to keep pace with social changes. It seems appropriate to point out that the two components of the learning/teaching binomial, which are obviously inseparable, can be visualised under two perspectives – that of the person who learns and that of the person who teaches. Faced with this dilemma (which is more academic than real), the tendency has been to take sides with the former with the aim of putting the pupil at the centre of the process, rather than the teacher. Hence, throughout the work the term "learn" is generally used instead of "teach", and "learning processes" is preferred to "training processes". We must understand that the concept of social responsibility is relatively new in Spanish society and the leaders of the different institutions involved in medical training are not likely to use it as a guide when it comes to designing their operating plans. As a result, within the framework of professionalism, efforts will need to be made to start training in social responsibility, both in the degree course[c] and in specialised training and continuing professional development (CPD).

The Institutions involved in the education/training of health professionals will continue to be useful as long as they are capable to accept and introduce the needed changes

In the Annex of this document a series of specific, and possibly urgent, actions are discussed. These actions affect the different organisations involved in delivering doctors'

[c] In Spain, following the Bologna reform, the old university degree of *licenciatura* (6 years) first became a bachelor's degree (*Grado*) and is now equivalent to a bachelor's and master's degree studied together.

education. They are not recommendations to be followed but rather actions that each institution should consider (if they have not already done so) implementing depending whether or not their commitment to social responsibility makes them a priority in that moment. All the institutions/organisations involved in and responsible for doctors' education and competence have the capacity to perform an in-depth analysis of the actions and changes they should adopt. Perhaps the most interesting contribution of this document is that it considers all the stakeholders as a whole and integrates them into a network, which without a doubt should be called a knowledge network.

Social responsibility. What are we talking about?

Seventeen years ago, Boelen and Heck [11] published a document entitled *Defining and Measuring the Social Accountability of Medical Schools* under the auspices of the WHO. It is clear then that despite the discussion of social responsibility in the training of doctors being a topical issue that is currently drawing a lot of interest, it is not particularly new. In that work it could be seen how society within the area influenced by English-speaking culture was then bent on finding a way to give greater value to the investment in healthcare. As a result, it was assumed that the institutions would have to prove the progress they were making in addressing social responsibility issues. Since medical schools, which the study was aimed at, condition the healthcare system in the same way the healthcare system conditions them, it was stressed that they had to be prepared and have available to them the instruments needed to objectively evaluate their progress in social responsibility. To this end, a practical instrument was proposed for measuring the relationship between the goals of the faculties and those of the healthcare system. This involved the objective analysis of the balance between relevance, quality, cost-effectiveness and equity.

Social responsibility in the training of doctors is now drawing a lot of interest although is not particularly new issue

In our country, and in the educational setting we are dealing with, the spirit of this study [11] did not make a great impact and the same could be said of others [12, 13] that were to follow it. Only recently have concepts like accountability, social commitment and institutional governance [14, 15, 16] (all imported from other industrial and manufacturing sectors) been taken up by medical education. The International Standard ISO 26000 [17] on social responsibility, published in 2010, allows a series of parameters and standards to be set that, by establishing a framework of reference, are useful in the field of medical training.

According to International Standard ISO 26000, *social responsibility* is the responsibility an organisation or institution has for the impact its decisions and activities have on its surroundings, society and the environment, through ethical and transparent behaviour that:

i. Contributes to sustainable development, including the health and welfare of society.
ii. Takes into account the expectations of stakeholders.

iii. Is in compliance with applicable law and consistent with international norms of behaviour.
iv. Is integrated throughout the organisation and is actually put into practice in its relationships.

We must not forget that the will of an institution to incorporate social and environmental considerations into its decision-making as well as to account for the impacts of its decisions and activities in society is a key feature of social responsibility. This also supposes that social responsibility is integrated throughout the whole institution, is expressed in its activities, and takes into account the interests of stakeholders. We should not forget that social responsibility is dynamic and reflects the development of social, environmental and economic concerns; as a result, it is more than likely that in the future new aspects which are of interest to society will appear or will be given priority, while others that are today seen as priorities may well disappear.

Social responsibility does not only involve respecting and abiding by the law and binding obligations, it also often means going a step further than strict compliance with existing legislation or the fulfilment of certain non-legally binding obligations. The social responsibility of a corporation goes beyond the concept of *quality*, which of course we cannot be neglected on in our attempt to prepare good doctors. In addition to quality, social responsibility also involves commitment to society, to the sick, to the profession, to the institution and the employer, to the work team and to oneself.
An organisation that applies social responsibility as it goes about its business maximises its contribution to sustainable development. *Chart 1* shows the list of basic principles that, according to Standard ISO 26000, organisations must respect within the framework of their social commitment.

Different organisations, both public and private, play a part in the education of doctors and the application of these basic principles is clearly relevant to all of them. However, if agreeing on the basic principles

Social responsibility is dynamic and reflects the development of social, environmental and economic concerns

Social responsibility goes beyond the concept of quality

CHART 1. Basic principles concerning social responsibility according to Standard ISO 26000 (2010)

1. Accountability
2. Transparency
3. Ethical behaviour
4. Respect for stakeholder interests
5. Respect for the rule of law
6. Respect for international norms of behaviour
7. Respect for human rights

Organisation's governance is important to be able to take responsibility for the impact of its decisions and activities as well as for integrating social responsibility

of social responsibility is difficult, it is even more complicated to put these principles to work in specific actions that can be measured or quantified, and which correspond to the practical activities performed by the different institutions involved in the training of doctors. Once again ISO 26000 proposes a framework of reference that includes seven *Core subjects* (*Figure 1*). These *Subjects* are nothing more than operational aspects that are to a greater or lesser extent applicable to different institutions involved in the education of doctors. The actions taken upon these *Subjects* must be related with the practices that the organisation itself carries out. Owing to its more central position with respect to the others, one of these *Subjects* stands out above the rest, namely governance, which is understood to be the system by which an organisation makes and implements decisions in order to reach its goals. Governance is without a doubt the most important factor an organisation needs to be able to take responsibility for the impact of its decisions and activities. It is therefore the key factor for integrating social responsibility within the organisation. As can be seen in Figure 1, these *Subjects* are interdependent and must therefore be understood as a whole, that is to say, as a holistic grouping represented by the hexagon that includes them all. The holistic approach to the *Subjects* may mean having to yield in some aspects with respect to others, although specific improvements in one particular issue should not have any negative effects on others or modify the value chain.

FIGURE 1. ***Areas*** **or fields of social responsibility of an Institution/Organisation; each of the seven includes different aspects or sub-areas. Modified from Standard ISO 26000 (2010).**

Those responsible for the training of doctors need to be as close as possible to the final product, i.e. doctors, and indeed to citizens in general. They also have to be familiar with the specific needs of professional practice in its most particular and operational details, which are the ones that are perceived first by citizens. If this is not so, the doctor will be further away from the social requirements and possibly closer to corporate interests, with a very uncertain future. Hence, the principles of social responsibility should be incorporated into competencies and these should be formulated or reformulated accordingly.

3 The education/training of doctors

From the moment that someone decides to become a doctor, they should be aware that most of the responsibility for their training is theirs and theirs alone. Anyone who wishes to become a doctor must learn the medical profession and to do so there are different institutions that, in the different stages of their career, will provide them with the knowledge, processes, instruments and techniques, as well as attitudes and values that will enable them to become competent professionals. However, this individual responsibility for learning, which must be fostered on a permanent basis, comes with several *fellow travellers* that play different roles at different points in the practice of the medical profession. All those involved in helping doctors acquire and develop the professional competence they need to assure the general public that they have access to the most competent doctor possible within a certain context and at a given moment in time are co-responsible for doctors' education.

Who assures general public that doctors have an adequate degree of competence and how is this guaranteed?

This document focuses on doctors' education and more specifically on the *fellow travellers* who are *responsible* for helping them to learn their profession and therefore for raising the quality of medical training. An analysis of the education, training and competence of healthcare professionals cannot be considered in an abstract manner, since it must be contextualised in relation to the particular structure of each *healthcare system*. Despite bearing this difficulty in mind, we will try to avoid discussing the benefits or shortcomings of each healthcare system and focus the problem on an element that is essential and common to all of them, namely, the ***competence*** of the professional. [18] Competence, which is derived from a permanent process of learning/evaluation, allows us to reformulate the question from the point of view of the *outcomes*, [19] or results obtained, which is undoubtedly simpler and a topical subject in the area of medical education. Ensuring the quality of the educational practice on a permanent basis requires, above all, that processes of assessment/accreditation are carried out on a regular basis and allow improvements to be periodically introduced into the system. Thus, taking it for granted that any healthcare system has its quality assurance mechanisms and safeguards, the question that must be posed is: *Who* assures the general public that its doctors have an adequate degree of competence and *how* is this guaranteed? It is obvious that there are a number of different stakeholders and that the responsibilities are

spread out across the educational continuum. Each institution must assume its own responsibilities and, more especially, they must do so because of their responsibility towards society. Through this social responsibility, each institution guarantees the quality of the medical act without waiting for the possible introduction of norms or regulations. Moreover, if each institution fulfilled its responsibilities, not only would it be unnecessary for the administration to establish regulations on the issue, but it would also become possible to settle inconsistencies in the regulations and thereby reduce the number of overlaps and the amount of bureaucracy.

4

Change of era, change of paradigms

Before undertaking any analysis of who is responsible for delivering the education and competence of doctors and exactly what their responsibilities are, first it is necessary to take into account a series of social and economic changes that have traced a new horizon that, with globalisation, is broader than ever before (*Chart 2*).

We have to be aware of the fact that the theoretical approaches and our capacity for analysis are not enough to anticipate the changes and the problems that they give rise to, and which we do not have any real operational capacity to solve. Regardless of the geographical or political barriers, the medicine of the 21st century takes a different view of illness and aims to evolve by expanding the horizon of its goals. As has already been acknowledged, the changes that society calls for with regard to medicine affect the way it is taught. [20] Medicine will have to be moderate and cautious, affordable and economically sustainable, fair and equitable. Medicine will focus on the patient rather than the illness and it will respect people's options and dignity.

The changes society calls for affect the way doctors are taught

If we want to facilitate the training of doctors who are useful to society, we will need to take into account the general demographic changes in the population (total increase in the population, changes in geographical distribution, and increase in the age of the population pyramid), as well as changes in the healthcare demography (feminisation, appearance of new healthcare professions, and so on). The transformation of nursing, a *profession* that emerged as such in the 20th century, and its recent incorporation into the academic rank of bachelor's degree[d] gives us something to think about, especially as far as the training

CHART 2. Socioeconomic changes that condition the competencies required of doctors

- In the goals of medicine
- Demographic
- Epidemiological
- Organisational
- Technological
- In the management of (*limited*) resources

[d] Adapting the Spanish University to Bologna has involved, among other changes, the transformation of different studies. Thus, the former Diploma in Nursing (3 years) has now become a Bachelor's Degree in Nursing (like all *grados*: 4 years).

of doctors is concerned. The new competencies of the degree will allow nursing to share areas of healthcare that up until now were limited to the medical profession. This issue is relevant because it offers doctors the freedom to train and become competent in disciplines that were not previously of their concern. Consequently, they now have new professional fields in which to practise, rather than feeling that certain areas they traditionally considered their own were being assigned to nursing.

Other important changes can be observed with respect to epidemiology, with the appearance of new diseases and the disappearance of others, and the emergence of new therapeutic approaches, resulting not only from the discovery of new pharmaceuticals but also the existence of new techniques or strategies (minimally invasive surgery, molecular therapy, molecular genetics). Demographic and therapeutic changes have brought chronic diseases [21] to the fore, and it has already been suggested that these require a review in clinical training. [22]

Organisational changes, partly due to technical advances and the ICT, have made it possible to reduce the time and cost involved in accessing information and has accelerated globalisation. Family medicine must be considered a fundamental element among the organisational changes taking place in the healthcare structures, since it has become not only the door through which the patient can enter and possibly be referred, but also the natural link between the patient and the healthcare system.

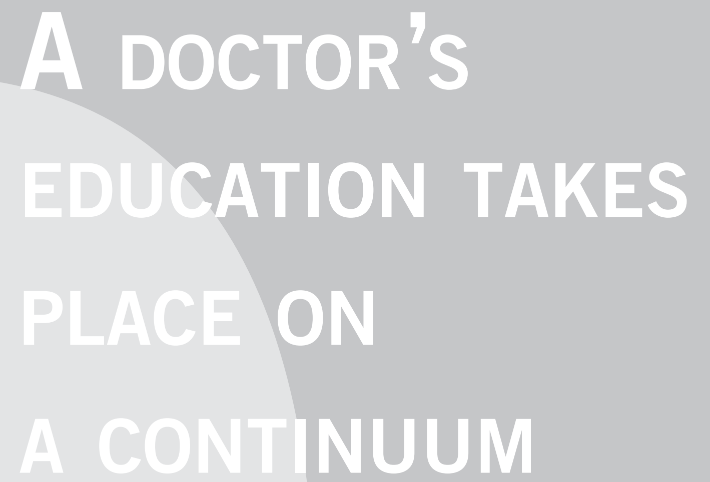
Nursing will share competencies with physicians while doctors will develop new ones

Just as significant are the changes in the doctor-patient relationship, so that now the management of the disease is a shared act. The patient is better informed and theoretically should be in a better condition to accept his or her responsibility by complying with the therapeutic instructions. Yet many studies have provided evidence of the difficulties that citizens/patients have when it

One of a doctor competency is to manage resources, bearing in mind that resources are not unlimited so that what is spent in a case is not available for another

comes to understanding what there is around them that can help them make good decisions regarding their health – something that is known as *Health Literacy*. [23] In this regard, patients' associations have taken a step forward and will have to play an even more significant role in the future because they have emerged as a significant stakeholder in the management of healthcare policies.

There have also been technological advances that change the type of medical care that can be delivered, such as major ambulatory surgery. Finally, we must pay close attention to one of the professional competencies of doctors: clinical management. Circumstances have made it clear that one of a doctor's competencies is as an administrator of resources and that these, both in times of economic abundance and in times of crisis, such as now, are limited. The two principles are very simple: *i*) economic resources are not unlimited, and *ii*) what is spent on one thing cannot be spent on another. For doctors, knowing how to prioritise the resources and budgets they have available to them is a relevant professional activity and one which, in general, they perform with little or no knowledge of how to manage them efficiently. Hence, such aspects should be part of their training.


A doctor's
education takes
place on
a continuum

Reviewing the academic training that doctors receive at university in order to graduate is not the only or even the main purpose of this document. This educational stage is but a part of the total learning time (only six years), although it is undoubtedly a very significant part not only because it sets the foundations for future learning but also because of the fissures or deficiencies that can condition later stages. The clinical doctor's learning takes place on a continuum that begins in the faculty of medicine and has no end. We have already noted the conceptual importance of doctors themselves being the person mainly responsible for their learning. Throughout the different periods of their professional development they will find themselves under the protection of different institutions whose missions include providing the education of professionals. These institutions, led by universities and their faculties of medicine (*Chart 3*), contribute to doctors' education with varying degrees of participation and responsibility.

While granting a degree is an exclusive function of the Universities and the specialization training belongs to accredited healthcare institutions, CPD ia a black box whose owner is undefined

Paradoxically, this continuum (which is not questionable and has never been questioned) is far from being a reality. If we review the events that have taken place over the last five years, we will find a good number of institutions, experts, round tables and other activities that have defended the importance of the educational continuum in medical training or in an idealised scheme of professional development. Nevertheless, doctors' education is structured in three segments (degree, specialised training, and CPD and continuing education – CE), which have few bonds between them, and in fact can often be considered watertight compartments that are completely sealed off from each other. Additionally, these three compartments are labelled with names that provide them with a sense of pseudo-belonging: a degree is the exclusive property of universities, specialised training corresponds to teaching, and CPD and CE belong to a *black box* whose owner is not clearly defined. The authorities, as a result of their slowness when it comes to applying norms and legislation, mainly cause this lack of communication between segments. However, pointing to the authorities as the only body responsible is an easy and deceptive way of concealing the real situation. Nobody prevents the institutions involved in consecutive segments of medical training from es-

CHART 3. Spanish institutions/organisations involved in medical training

1.	**Institutions in the educational system**
	1.1. Bachelor-Master's, Doctoral and Postgraduate training (Universities and Educational and Healthcare authorities[e])
	1.2. Specialist training (Healthcare institutions, Authorities, CNECS, Teaching units, Heads of studies, Tutors and others)
	1.3. Training for CPD and CE (Providers, managers and intermediaries)
2.	**Institutions in the healthcare system**
	2.1. Employers/Management associations delivering healthcare services
	2.2. Bodies involved in funding and regulating medical education (Central and autonomic governments and Public bodies)
3.	**Professional medical and biomedical organisations**
	3.1. Consejo General de Colegios Oficiales de Médicos (CGCOM), Official Medical Associations (COM) and other official associations
	3.2. Scientific societies/institutions
4.	**Industrial, commercial and intermediary organisations**
	4.1. Pharmaceutical, biotechnology, technological equipment and ICT industries
	4.2. Commercial/intermediary organisations (MECs)[f]
5.	***Citizens' Organisations***
	5.1. Citizens' and patients' associations
	5.2. Social networks

[e] Although different healthcare authorities have preferred to use the term "health" instead of "healthcare", in this work we will use the latter term to avoid indulging in any kind of demagoguery.

[f] The term MEC or MECs stands for *Medical Education Companies* and includes all kinds of commercial or industrial organisations in some way involved in delivering medical training. In the USA they are recognised and submitted to processes of accreditation by the ACCME if they want to give credits for professional recertification, while in Europe the MECs are currently still the subject of much debate.

CHART 4. Framework of competencies needed for medical practice according to CanMEDS

- Expert
- Communicator
- Collaborator
- Manager
- Health Advocate
- Scholar
- Professional

CanMEDS refers to the "expert" as someone who is competent in clinical practice; to put it another way, a competence sine qua non of a good doctor is to be clinically competent. However, to be a competent clinician he or she must possess the other six competencies.

tablishing joint programmes and goals with one another; indeed, if they were to do so, they could carry out their activities almost without interruption.

Notwithstanding, the continuum is no chimera. We have a number of examples in different countries. One notable example of a model of structured planning of the training continuum of doctors is the Canadian programme sponsored by the Royal College of Physicians and Surgeons of Canada, known as CanMEDS. [24] This programme defines the framework of competencies needed for medical practice (*Chart 4*) and takes these competencies as the basis on which to articulate the training needed to improve healthcare.

The CanMEDS programme has been developed over a period of more than 20 years based on the experiences and needs of both citizens and patients. The fundamental roles defined by CanMEDS have become, both in Canada and internationally, standards in the art of medicine and are a framework of reference for professional development, CE and their evaluation.

6

Stages in the education of doctors

A classical, although still useful, way of viewing doctors' education has been to divide it into three periods: degree, specialised training, and CPD, which is the stage in which CE is a significant element (*Chart 5*).

Yet, as pointed out while discussing the continuum, one of the notorious problems in the training of doctors is the lack of bridges between these three compartments, each of which is anchored in a very different governance structure. The healthcare

CHART 5. Phases in the education of doctors in Spain[g]

1. Academic Training	**3. Continuing professional development (CPD)/Continuing education (CE)**
a. Bachelor-Master	a. Formal Education Diplomas • Accreditation Diplomas • Advanced Accreditation Diplomas
b. Doctoral	b. Recognition of other training activities
c. Other Bachelor's or Master's Degrees	c. Re-accreditations • Renewing[h] membership of Official Association (Professional values, Generic competences) • Recertification (Specific competencies and CPD)
d. Other academic diplomas (Postgraduate Activities)	
2. Specialised training	
a. Official Medical Specialty	
b. High Qualified Areas (HQAs)	

[g] The nomenclature used in Spain can lead to some confusion in other countries. Thus it should be understood that: 1- In Spain the qualification known as Grado (Bachelor's degree) in medicine is equivalent to that of doctor, medical graduate or doctor in medicine (MD) in other countries or continents. 2- The master's degree (*grado de maestría*) is equivalent to a university postgraduate qualification (in Latin America) or to studies in areas other than that of medical activity (public health, business administration, clinical research, etc.). 3- The criteria for awarding Diplomas or Certificates vary from one country to another. 4- In general it must be understood that professionals are certified while institutions, programmes or research centres are accredited. 5- Likewise, professionals are recertified. 6- The concept of validation means that a professional qualification obtained in one country/region is accepted (recognised) as such in another.

[h] In Spain, the Consejo General de Colegios Oficiales de Médicos (CGCOM) has developed a voluntary process for renewing membership called Periodic Membership Validation (VPC – *Validación Periódica de la Colegiación*).

structures in English-speaking cultures are organised in such a way that they offer several examples of what are known as Joint Committees.[i] Their functioning and results are praiseworthy and their mission is to link different organisations or bodies related to doctors, to their education or to their competence. Setting up different joint committees or commissions (University-Official Associations, Scientific Associations-Societies, CNECS-CNDFM – *National Conference of Deans of Faculties of Medicine*, etc.) is not only a task that can be carried out without a great outlay, but also does not need to be officially formulated and notified in the Official State Gazette or those of the Autonomous Regions.

The mission of the joint committees in medical education is linking the different committed institutions in a flexible way

The credibility and acceptance of this kind of structure – Joint Committee or Commission – must not come from the administration via a new set of regulations, but instead through the explicit commitment of the institutions involved to permanently adapt to an impeccable management, based on ethical functioning and accompanied by social responsibility.

[i] These joint committees are made up of members from more than one organisation.

7 Curricular goals and competencies: a dynamic process for improving the quality of healthcare

A number of different, internationally renowned institutions have defined goals and standards for the education/training of doctors. The IIME [25] of New York did so in 2002 and in 2003 the WFME [26-28] published its trilogy covering the three stages (degree, medical specialty and CE), although the professional competencies are not specified. In the USA different institutions[j] have defined the competencies that must be demonstrated at the end of each stage and these are used as a framework of reference for certification and recertification of their respective professionals. In any case, it is neither the intention nor the obligation of this work to review the contents and the competencies of doctors' education/training. Nonetheless, it is a good moment to discuss certain general elements that are directly related to the curricular goals and competencies. These elements are valid for any of the three stages of education/training or, even better, for the training continuum.

[j] See the competencies defined by AAMC, ABMS and LCGME.

Lately there has been an increasing interest in the up to then neglected cross-curricular or generic competencies

From a historical point of view of education in medicine, it could be said that the morphological sciences have been the entrance to the study of medicine for many years. However, the morphological sciences are not the first entry point to medicine today and the current entrance will not be that of tomorrow. Thus, both the goals that medical training seeks to cover and the competencies that must be demonstrated at the end of each stage are not immutable; instead, they have to be adapted to meet the final needs, which are an improvement in the quality of the healthcare received by patients.

In the last few years there has been an increased interest in cross-curricular or generic competencies without this having any detrimental effect on the specific competencies. Communication skills, information science, languages, professional empathy, critical thinking, dealing with uncertainty, and many other generic or cross-curricular competencies can be taken as examples to illustrate their growing relevance. Van der Vleuten [29] has claimed that, like any other competence, the generic or cross-curricular competencies, in terms of assessment, are also context-specific. The same author has also shown that when problems arise in clinical practice, these are the competencies that are involved. In another work, Meng [30] has shown how success on the job market is more strongly determined by the generic competencies than by the specific ones, which therefore makes fostering the

development and learning of the generic competencies an absolute must. All the generic competencies can be learnt or enhanced. Neither *being able to skate* nor *professional empathy* are natural talents we are born with. Each of them is a skill that we may have a greater or lesser capacity to perform but, in any event, can be learnt and undoubtedly improved.

We cannot discuss the importance of the different generic competencies here, since this would without doubt deserve an exhaustive study in its own right. However, it is worthwhile commenting on the importance of some of them, just as an example. To this end we can refer to a study recently published by *The King's Fund* [31] which deals with the capacity for leadership as a key competence in improving medical care. In chapter 1.3 (see Chart 1) we referred to the different social transformations that have brought us to a change of paradigm in healthcare, in how patients want to be cared for and in how doctors must care for their patients. Can the healthcare system accept these changes without the leaders that are needed to direct the processes of change? Expecting the different professionals involved in healthcare, each of them competent in their respective areas of knowledge, including doctors, to be able to accept changes that require new paradigms without any specific training and, more especially, without any training in leadership is but a daydream. In this regard, the above-mentioned study by *The King's Fund* proposes several recommendations for the UK's National Health Service (NHS), most of which can probably be generalised to other contexts. In their opinion, the NHS should activate, without delay, training schemes in:

The capacity for leadership is a key competence in improving medical care

- Basic management skills (project management, financial understanding and process improvement).
- Basic leadership skills (capacity for: influencing, engaging, decision-making, briefing a team, running a task, giving feedback, building networks).
- Building a wider understanding of the whole system/organisation, thereby appreciating how the whole process works to deliver care and not just one's own job.
- Basic performance management and talent identification system.

It should come as no surprise if, in the USA and some European countries, we find this competence – the capacity for leadership – included in the programmes of the different scientific societies and specialities. Nevertheless, the real situation that we find in Spanish educational institutions across

the whole continuum is that they do not place sufficient emphasis on this competence or on many other generic competencies.

The specific competencies are also submitted to the same processes of change, depending on the needs. The difference between these and the generic competencies is that the need to change or update is more obvious, and therefore teachers and learners can accept more easily the inclusion or exclusion of these specific goals and competencies.

8

BEYOND THE TRADITIONAL CURRICULAR CONTENTS AND COMPETENCIES

The previous section outlined the need to constantly update both the curricular goals and the competencies to be acquired or maintained at each stage of professional practice. However, we need to reflect on something that goes beyond the constant updating of contents and competencies of doctors. In this case we are talking about visualising what other fields of training will be needed by the doctor of the future. It will be necessary to take the risk of predicting what areas of knowledge that have still not been prioritised (or only superficially so) will be essential for the doctors of the future to be able to practise their profession. The institutions/organisations that facilitate/ deliver training for doctors must reflect deeply, and extend the contents and competencies of doctors towards other frontiers, other fields and other areas of knowledge beyond the traditional ones. To reflect on this we will use two very different examples, namely Health Literacy and the area of the cognitive sciences. These are two examples that are easily understood and accepted because authoritative voices have pointed out the need for them and have shown them to be lacking in the training of doctors. These two examples draw attention to the fact that the traditional curricular contents are not sufficient for the doctor of the future and must encourage us to carry out a prospective search for other areas to incorporate into medical training.

It will be necessary to run the risk of predicting what areas of knowledge not yet prioritized will be essential for doctors in the future

Health literacy has been defined as the capacity of patients to process and understand all the health information they are provided with so that they can make the decisions they consider to be the most appropriate for their health. [23] Health literacy is a dynamic concept, an interaction between two elements – the system and the citizen/patient. What we wish to consider in this work is the doctor's role, as a significant element in the system, in health literacy. The institutions that are responsible for medical training will have to consider what training, what skills and attitudes of the doctor facilitate and improve the interaction between the parties involved. The Harvard School of Public Health has developed a department designed[k] for healthcare and educational professionals who are interested in health literacy.

[k] The Harvard School of Public Health: Health Literacy Studies Website available at: http://www.hsph.harvard.edu/healthliteracy Accessed: August 23, 2012

From the area of the cognitive sciences we can pose two questions: Do doctors know how doctors think? Do doctors know what mistakes their cognitive processes make? The importance of these two questions is clear: the more familiar we are with the processes of (clinical) reasoning, the better the diagnosis will be and fewer mistakes will be made.

A fundamental type of learning in the process of becoming a doctor is learning from experience. For this to happen however, experience alone is not enough. This kind of learning takes place if the experience is followed by reflection.[32] Indeed both the capacity to reflect and the ability to reason in the process of solving clinical problems are the fundamental cores of clinical competence. Increasingly, reflection is frequently identified as a key component of medical professionalism.[33] It is a process that enables doctors to determine their actions, critically review these actions and act upon the results in the client's or patient's best interest. Reflection is a metacognitive process that creates a greater understanding of oneself and the situation, and future actions can therefore be based on this understanding.[34] This is a core process in professional development. Given that students do not adopt reflective learning habits spontaneously, it is clearly important to incorporate these practices at all educational levels.

Doctors' preparation in the cognitive sciences is very superficial, to say the least, so

Do doctors know how doctors think?

it is therefore necessary to include them as a deeper and more extensive part of their training.[35] This example of the area of the cognitive sciences allows us to consider, from the pragmatic point of view, two aspects. The first are the advantages that a command of the physiological mechanisms of how thoughts are processed and of how memory is used can give a doctor in his or her clinical activity and especially in clinical diagnosis. On the other hand, let us recall that the reasoning of an expert is not the same as that of an apprentice, which leads us to deduce that clinical reasoning undergoes modifications between the moment students begin their medical studies and their activity as expert senior professionals. The reasoning process mainly used by a novice professional when faced with a problem – a diagnosis – is the hypothetical-deductive method. The expert, however, is capable of short-circuiting the hypothetical-deductive method by means of *shortcuts* and using other reasoning processes such as *pattern recognition*. These alternatives make it possible to find a solution to the problem, i.e. the diagnosis, more quickly, as well as freeing up neuronal space for the perception and handling of a greater

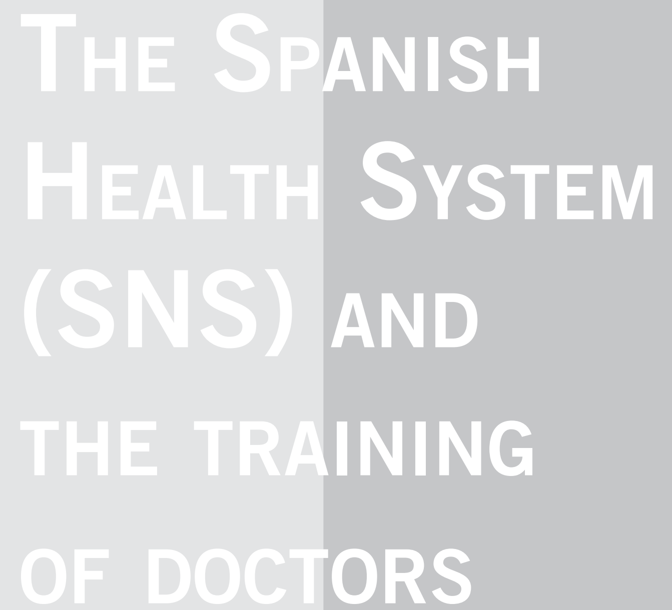
Doctors need to be made competent in up to now educationally neglected competencies

number of elements, which is something that characterises experts.[36-38]

Nevertheless and in contrast to the shortcuts, we find ourselves before the second question to be taken into account, which is the appearance of cognitive biases and routines that can often be a source of medical errors if the professional is unaware of them. We take it for granted that medical error is a multifactorial phenomenon, with clinical reasoning being only one of those factors. However, what we are introducing in this section and with this example is the need to make doctors competent in non-traditional or habitual areas of the curricula. Since there is a large body of information available on the subject of cognitive biases, it can be deduced that with better preparation in the processes of reasoning the expert clinician's biases would be avoided or could be reduced.

9

The Spanish Health System (SNS) and the training of doctors



Since the healthcare system is an element that inspires and defines the kind of doctor that is needed, it must be borne in mind (although it has already been pointed out earlier) that this difficulty would be largely avoided by focusing the problem on competencies. Several different questions can serve to illustrate the problems generated by the structure of the SNS and which condition the training of doctors. What is the functional, i.e. the real, structure of our SNS like? Are the institutions that provide healthcare in the different autonomous communities comparable? Are the *Primary Care* and *Hospital Care* structures balanced? Does the system rely on the former more than the latter, or vice versa? If one speaks of primary structures and tertiary structures, is it presupposed that secondary or intermediary structures also exist? Should this kind of secondary or intermediary care exist? Besides other non-medical professionals, the human resources in primary care consist of general practitioners and paediatricians, but should there be other specialists in primary care? Apart from general practitioners and paediatricians, is it inevitable that the other specialists are, from the moment they complete their speciality, practising physicians in tertiary structures? Should Public Health be more prominent in healthcare structures? Should it be considered a clinical speciality?

CHART 6. Functional levels of the Spanish National Health System (SNS)

1. Primary care
2. Hospital care
3. Mental health
4. Intermediary systems
   a. primary / outpatients
   b. hospital (non-tertiary)
5. Public health
6. Community health care
7. Other levels of care

Looking at it from a pragmatic point of view, the structure of the SNS (*Chart 6*) displays a number of dysfunctions between the tasks demanded by the SNS itself and the training received by professionals. One of the most complex points is the intersection between primary care and hospital care. In practice, in some tasks, the boundary between the competencies of the doctor specialised in familial or community medicine or the paediatrician and the competence of other specialists is not clearly defined or resolved. Another formulation of the same problem is whether, in addition to the general practitioner and the paediatrician, there should be specialists whose responsi-

bility and occupational activity is basically focused on primary care and therefore the natural setting of their practice is not in a hospital. In practice, the intermediate level between primary and tertiary care has sometimes been occupied the general practitioner, at other times by hospital care and on a good many occasions by recruiting extra personnel *ad hoc*, who do not belong to either of these two groups. Perhaps the most important thing, however, is that they do not feel the patients they must attend to and report on to be their own. The organisational problem can almost certainly be resolved in different ways, but whatever the solution might be at this point, there is a previously existing problem related with the definition of competencies and with the structure of the doctors' training, namely, how they are trained and what for.

As will be commented in the section on *Planning/Assessment of doctors' education*, a correct planning process must cover everything from what is being pursued (i.e. to cover the population's needs) to the most basic training material (i.e. the contents of the curriculum). It therefore comes as no surprise that specialised training has an influence on graduate training; what does surprise us is that those responsible for the degree complain about it. What or who conditions Specialised Training and Professional Development? Let's not fool ourselves: the job market defines the product it requires and, by defining it, not only conditions it but also considers that direct intervention in the training of the professional is a justifiable act. In this regard, the influence of the employer must be classified? as excessively interventionist, since it generates a perversion in the system that becomes even more serious because on most occasions the employer is the administration itself. This is no gratuitous accusation, but rather the result of the observation that over the last decade the administration, in addition to being an employer, also often acts as an educator and always as a regulator. Hence, and to avoid being both judge and jury, it is necessary to establish transparent, separate mechanisms for each of the functions, and to delegate everything that can be managed outside the administration to technical bodies capable of performing such duties. In countries with

> **The administration often acts as an employer and educator, but always as a regulator. To avoid being both judge and jury, it is necessary to establish transparent, separate mechanisms for each of the functions**

a democratic culture, nobody should question technical structures with the capacity to adapt solutions to *possibilism*, while capturing both social and professional acceptance. The administration has the *potestas*[l] of Roman law that it must not relinquish, but to govern well it must use the *auctoritas*[m] whenever it is to be found.

What may be assumed from this section, which as we have said does not aim to analyse the benefits of healthcare systems, is that there is a need to update, on the one hand, the healthcare system so that it is articulated around new cores (the patient, chronic disease or others) and, on the other, the training of the professionals who have to work in that system. In other words, reorganising the healthcare system involves the need to train professionals in new competencies. The professionals that we have today can and must be useful in a new scenario, but for that to happen they must learn the new role that they are going to have to play.

[l] In Roman law potestas is understood to mean the socially acknowledged power. In the modern sense of the term, an authority holds *potestas* if it has the legal capacity to ensure its decision is complied with. The concept contrasts with *auctoritas* or socially recognised *knowledge*.

[m] A personality or institution holds auctoritas if it has the moral capacity to issue a qualified opinion about a decision. Although that decision is not legally binding, and cannot be imposed, it has a very strong moral value. The term in fact cannot really be translated and the word “authority” is but a shadow of the true meaning of the Latin word. The concept contrasts with *potestas* or socially recognised *power*.

10

Planning/Assessment of the education of doctors

Planning has two aspects to it: a qualitative one and a quantitative one. In our case the planning of doctors consists in knowing *what*, that is, the characteristics doctors should have to cover the needs, and *how many*, or the number of doctors required to achieve this. In the USA progress has been made in defining the professional profiles that are wanted or needed (that is to say, the competencies) by working in collaboration with professional associations, which are in a better position to define non-cognitive aspects. Yet in Spain the advances that can be considered positive have been very theoretical and their repercussion on training programmes has been insufficient. The other question, the quantitative side of the matter, should be addressed elsewhere with criteria based on national planning and not on budget restraints or policies that are often opportunistic, to say the least. Finally, it must be borne in mind that the process of planning is inseparable from that of assessing. Assessment is not improvised *a posteriori*, but must instead be scheduled from the outset.

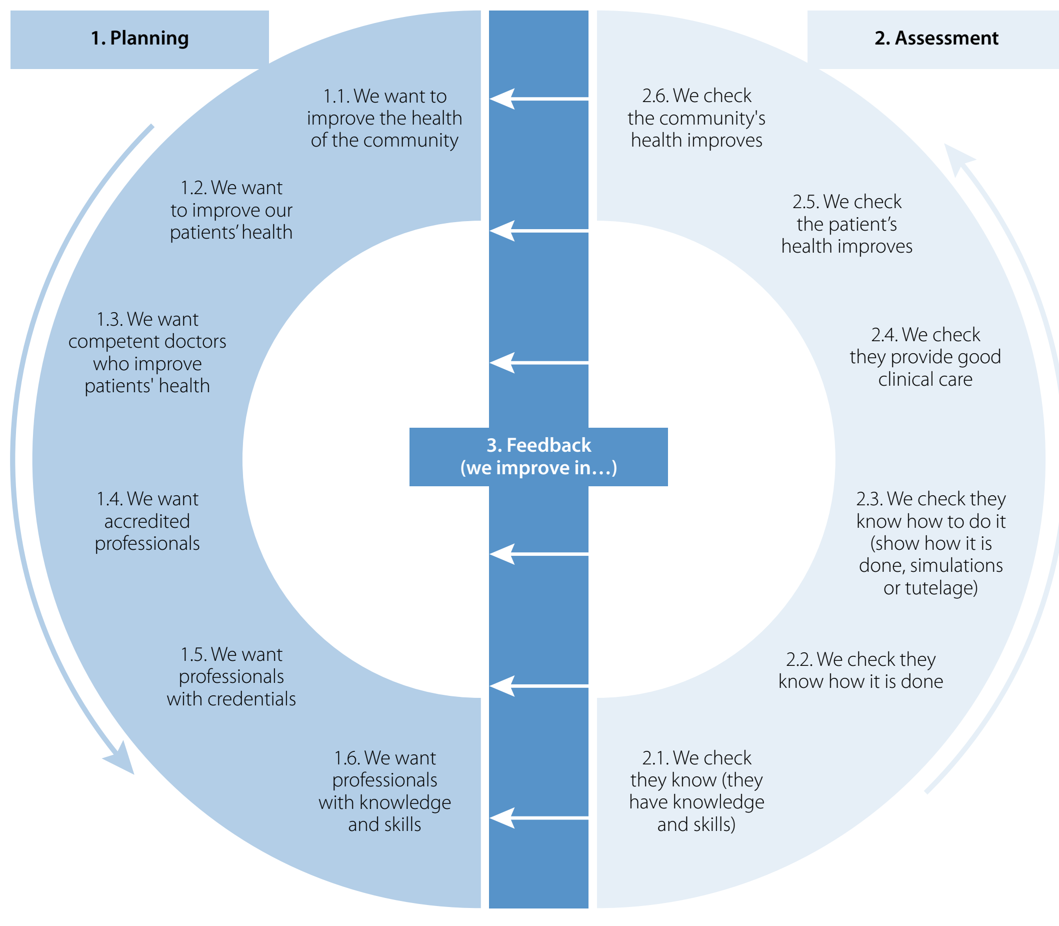
Planning is inseparable from assessing

Hence, like any other process, doctors' training must be planned and assessed by an elemental control of the quality. These two processes – planning the type of doctors that are required and assessing the resulting product – follow a parallel and very similar structure, which can be represented by the *PAF-Circle* shown in Figure 2. Planning and assessment, however, display characteristics that are not always taken into account. The first difference is that planning is a process that must be carried out prior to assessment. The second differentiating, but also substantial, feature is that planning runs from the general to the specific, from the general public to the learner, while the assessment processes run in the opposite direction, that is, from the specific to the general, from the learner to the general public. Finally, there is a third relevant question, which is the feedback or information provided by the assessment. This information is the key element that can be used, if necessary, to modify or introduce improvements in the planning. Unfortunately, the feedback is not always used appropriately, since its capacity to facilitate improvement is underestimated and its possibilities are even sometimes looked down upon.

Assessment[n] is a construct made up of different components, of which three could be underlined as the most important: *i*) gathering information (measure), *ii*) formulating a value judgement about previ-

[n] There is a large body of literature on this matter, for example: Tyler, R. (1950), Cronbach (1963), Tenbrink (1981) and De la Orden (1987).

FIGURE 2. PAF (1-Planning, 2-Assessment, and 3-Feedback) circle of the training of Health Science professionals.



ously defined standards, and *iii*) making decisions with a view to improvement. If these three requirements are not present, we are not assessing. Thus, if we aim to assess the training of doctors through professional competence, we need to measure the medical act, issue a judgement about whether it is adequate or relevant with regard to the defined standards, and take the necessary steps if the judgement were unfavourable. These "steps" involve simply activating the training *ad hoc* so that the doctor's next professional act meets the requirements for a favourable judgement. The ultimate aim

Planning is prior to assessment and runs from general to specific, while assessment runs from specific to general

of assessing the competence of the doctor is to ensure citizens receive the care they need in each case.

It must therefore be deduced that assessment of the medical act offers a two-fold effectiveness. On the one hand, it is useful for doctors, since it provides them with information that shows their level of competence and, depending on that level, what *remedial*[o] training programme should be undertaken from that moment on. On the other hand, it is also useful for patients because it guarantees that the care they receive is of the highest quality. The quality of the medical act cannot be separated from the assessment of competence, which must be demanded by both citizens and doctors. In a complex health care system such as ours, doctors practise mainly in an organisation and in a position for which certain specific competencies are required. These demands stemming from the job, from the profile required by the employer, should not be interpreted as yet another obstacle for the professional but as a guide indicating the way to the best professional development. In this way, both professionals and citizens will know what competencies the professional has and who safeguards them (*Chart 7*).

[o] The Merriam-Webster dictionary defines *remedial* as: concerned with the correction of faulty study habits and the raising of a pupil's general competence.

Assessment of clinical performance benefits doctors showing them their level of competence and patients ensuring high quality of care

In 1990 Miller [41] devised the schema for assessing clinical competence in four parts. This proposal is known as *Miller's Pyramid* and has become deservedly popular. In the *PAF-Circle* in Figure 2, we can see how levels 2.1, 2.2, 2.3 and 2.4 match the four levels of Miller's pyramid of assessment. Nevertheless the *PAF-Circle* is more complex because, unlike Miller's pyramid, which included only assessment, it includes planning, assessment and feedback. The PAF-Circle must be seen as a whole and, to understand it, it is essential to take into account, first, that planning comes before assessment and, second, that planning begins on levels that are higher than the four tiers of the conventional version of Miller's pyramid.

CHART 7. Regulatory credentials of competence (explicit and tacit) and those who manage them in Spain

▪ **Professional qualifications**	Authorities (*Education/Healthcare*)
• Bachelor's/Master's/Doctor's Degree	
• Specialty/Specific Training Areas (ACEs)	
• Accreditation Diploma (AD) and Advanced Accreditation Diploma (AAD)	
▪ **Professional codes and Standards of competence**	Professional Associations (*National/International*)
• Deontological code	
• Professional values (Professionalism)	
• Professional competencies	
▪ **Maintenance/Renewal of competencies**	
• Generic or Cross-curricular	Medical colleges (*Renewing membership; licence*)
• Specific (of specialty)	Medical Boards (*Recertification*)
• Job profile	Employer

The credentials related to doctors and the medical profession are instruments that provide objective proof of the existence of certain knowledge or certain competencies that enable a particular task to be performed correctly. The bodies responsible for issuing the credentials differ from one country to another.

Chart 7 shows different credentials or codes related to doctors in Spain and the institutions or organisations responsible for issuing them.

From theory to action

In the section entitled *Change of era, change of paradigms* (see section 1.4.), we examined how new paradigms have appeared in different areas as a result of the fact that we are now in the 21st century and find ourselves conditioned by a series of changes, which may be demographic, epidemiological, organisational, technological and managerial. They may also involve modifications to the very goals pursued by medicine. Just as important are a series of other social (individual/family) or economic (abundance/shortage) changes that in a short time have turned a setting that we considered to be secure into one that is full of uncertainties looming over the horizon. Society, seeing how the welfare state is beginning to crumble, is calling for a new way of life that, in addition to becoming increasingly longer, also sees health as a dimension that goes beyond simply not being ill. Since society, which plays an increasingly more important and informed role, demands a new way of living and of understanding health, a new healthcare structure is needed. To achieve this, we also require new training for doctors with new competencies that keep pace with the changes that are taking place. In the new structure, the doctor will be a significant element in the healthcare team that will treat the citizens and, if it is his or her intention, will continue to be the leader of that team. In the new order of competencies, doctors must not retain competencies that were historically theirs but will have to know which of them they have to share with other healthcare professionals, especially with nursing. Doctors will have to understand that sharing is not losing, but rather the opposite – it is freeing up space in which to fit in new competencies that they will ultimately be responsible for.

A better informed society demands a new approach to health and a new training of doctors

In short, nobody can forget that social confidence is the cement that preserves social cohesion [42] and that this confidence is built up through a complex social dialogue in which the different stakeholders must be on the look-out for changes that appear in the expectations some social agents have about the others. Healthcare deliverers and their professionals are highly valued by society, more than the University and other institutions or professional groups.[43] Since we are heading towards an open society in which accountability is not only something expected but also demanded by society, it will be necessary to recognise the changes in expectations in time and ensure timely steps are taken to maintain or increase the social confidence that preserves social cohesion.

It is a fact – which should be beyond any kind of discussion – that society is calling for a change in the educational paradigm for the training of doctors. To date this has been focused on scientific knowledge of the disease rather than on the patient and has been more concerned with teaching than with learning. To address this issue, the European Higher Education Area has designed a framework of reference. [44-48] Our absolute belief (perhaps we could go so far as to call it faith) in progress based on experimental research currently in use must not lead us to neglect the advances made in the cognitive sciences. Common sense shows the need to combine the two if we wish to find a balance point. There are two issues that need considering. One refers to where we set out from and where we heading for, that is to say, what the prevailing paradigm was and what the new one should be. The other issue, which is more difficult to evaluate, is whether the changes that have already taken place are on the path towards this desired new paradigm or whether it leads us away from it.

With regard to the change of educational paradigm, certain facts have been largely ignored and on some specific occasions they have gone completely unnoticed. One unusual fact was the lack of reflection by the authorities and the universities themselves about the need for teaching staff with new competencies capable of addressing the new educational approach. Bologna requires a new kind of teaching staff or, if you prefer, an updated teaching staff that is prepared and trained to cope with new challenges, new methodologies and, above all, new educational goals. Some Spanish universities have developed initiatives aimed at training teaching staff mainly through the Institutes for Educational Sciences (ICE, in Spanish), although many of them are more interested in the teaching that takes place in primary and secondary education than at university. In any case, the impact of these teacher-training actions has not been determined and perhaps these teachers continue to be unaware of the changes that are needed. Bologna places the emphasis on learning more than on teaching. The cost of doing things badly is high and yet one gets the

Social trust is the cement preserving social cohesion

Bologna askes for changes, but, we have been more concerned with doing more that with doing better

feeling that we have been more concerned with doing a greater number of things than with doing them better. Moreover, we have not even shown any interest in controlling the quality of our changes effectively.

Another unusual fact in the world of higher education, where there is a very skilled collective that comes close to technical excellence, is that the habits and customs of the *industrial society* are maintained, when this same collective recognises that we are now in a new era – that of the *knowledge society*. The steam engine, as the paradigm of

We must go beyond fragmented, dispersed, disconnected and compartmentalised thinking. It is impossible to reorganize knowledge without integrating disciplines

the industrial revolution, made it possible to step up production, efficiency, and profits but it compartmentalised the space of each product and also of each citizen. Today, the ICTs, as the paradigm of the knowledge society, have overcome this compartmentalisation and created a network of communicated elements that has led to what is now known as globalisation. Once again it must be stated that a cultural change has taken place and that it is reasonable to suppose we must expect new and perhaps more dramatic social transformations. The complexity and diversity of today's world clearly show that the models of thinking employed up until now are about to expire. The *text* of our thinking must adapt to the current *context*.[49] For this same reason, we must consider the idea of overcoming those fragmented, dispersed, disjointed and compartmentalised ways of thinking. Today it is impossible to reorganise knowledge if we do not bring several different disciplines together. Transdisciplinarity must be used as an instrument to join different approaches, to fuse the various ways of thinking in each discipline to form a new one that gives rise to something more than the sum of its parts. As stated by Edgard Morin,[50] we must arrive at systemic, or complex, thinking, which implies that uni-linear and uni-directional causality must be replaced by a multi-referential causality. Furthermore, the same classical logic must be corrected by dialogic, which is capable of conceiving notions that are simultaneously complementary and antagonistic. We are therefore talking about a reform involving paradigms rather than programmes. It is about reforming thinking in such a way that not only allows separation in order to know, but also to join what is separated. This approach enables us to understand associative work as a new source of knowledge. Faced with a ver-

ified social change, faced with a change of thinking that is widely upheld by theory and empirically proven, faced with such evidence, can professionals working in teaching remain inactive, unthinking and inoperative? Can the institutions responsible for the training of doctors passively follow the current?

In contrast to the professionals – and the institutions – that cultivate their expertise as technicians, society will demand civic professionals, professionals who work with citizens instead of acting upon citizens. In other words, it will call for professionals who simply practise *civic professionalism* as an essential instrument for achieving improvement that favours the citizen. Thus, this concept of civic professionalism must be fostered and taught by the academic structures. Teaching staff, students and educational institutions, especially the university, will have to cope with important changes to be able to emerge from the scientific-technical isolation in which it envelops and protects itself. Professionals working in higher education will have to make their work more public, with more interactive methodologies, with respect for the citizen, in a more open, visible and collaborative manner. Likewise, they will have to seep themselves in solid democratic values and transmit them. Teachers, students and educational institutions will have to commit themselves to the community as peers in order to search for practical solutions to the problems of the community. Universities and university students will have to use their usual academic practice (the theoretical framework) only to guide the practical activities in favour of a democratic society. The partitions that were up until yesterday watertight compartments – namely Faculty, Chair, Professor, Student, Institute, Subject, Service, Consultation or any other term used in the teaching/learning system – have now become part of a network where any action or decision is shared and, therefore, must be a collaborative act. The social networks (Facebook, Twitter, LinkedIn and so forth) are no longer just a fad: they are a reality that, if used badly, can cause problems, including the mingling of valid and doubtful information, although in any case they offer a number of positive aspects that we should not neglect. Participating in these social networks will become a responsibility to, among other aspects, ensure and assure the quality of the contents that circulate in them.

Depending on the new paradigm, whose basic changes in the training processes are shown in *Chart 8*, and the consequences that it entails for the institutions responsible for the training of doctors, it is necessary to consider what changes of strategy, educational process and, perhaps, institutional goals must be activated and, perhaps, urgently accelerated.

Many institutions involved in medical training have begun reforms or adaptations that follow the direction indicated by society. However, what is needed is a common

CHART 8. Basic changes in the training processes. New Paradigm

1.	From Teacher-focused	to	Student-focused
2.	From Teaching	to	Learning
3.	From the Process	to	Outcomes/Competencies
4.	From Knowledge and Skills	to	Attitudes and behaviours

plan that guides the change that this globalised society is calling for. This plan, this planning, must stem from an associated structure in which all those involved are represented and therefore a uni-personal or uni-institutional proposal is not the most appropriate. Furthermore, because we are convinced that the time has come to act, in the *Annex* we suggest a series of actions for each institution or organisation that is to some extent involved in the training of doctors.

Each institution/organisation should consider whether they ought to give the proposed actions priority or not. Those actions are not intended to dogmatise nor should the list be considered exhaustive. Without a doubt not all of them deserve to be on it while others that are worthy of being included are missing; moreover, each institution can and will formulate other actions that they consider to be necessary and priorities in their area. The proposed actions are intended to have a point in common, which is the urgent need to activate them if the aim is to remain in the world of interrelated and intercommunicated knowledge. Doctors' training, on the one hand, and maintaining and assuring the general public of their professional competence, on the other, are two wholly interrelated issues that can no longer be kept in watertight compartments. It is neither ethical nor socially justifiable to maintain a system of medical training from the last millennium because of the cost of the reforms that are needed or due to the potential inconvenience for and/or apathy of certain collectives. Among other aspects to be reviewed,

Training doctors requires joint planning by the concerned institutions to guide the needed change

assessment stands out above the rest. Thus, assessment is not a synonym of examination; assessment must be conceived of as an element of learning and professionals must be familiar with the different methodologies that can be used to assess processes, and which go far beyond knowledge and the capacity to remember it. An analysis of the points outlined above allows us to detect different shortcomings or mismatches in and among the different institutions involved in the training of doctors.

It is neither ethical nor socially justifiable to maintain a system of medical training from the last millennium

These problems or mismatches have been used as the basis on which to evaluate some of the issues that affect each of the different institutions responsible for doctors' training. Perhaps the institutions themselves will perform the best analysis of their problems and this is the reason why they should give priority to addressing it, both individually and jointly. The need to adapt to our times and especially to globalisation drives the institutions towards changes in their social structures. Nevertheless, rather than being proactive to change and if possible leading it, many institutions remain immobile, uncomfortable, maladjusted or even actively resist it.

The actions considered in the Annex are not to be understood as an exhaustive list. Those responsible, because they are obvious, have already undertaken some issues, for them or, in other cases, problems have been detected that have been addressed by the relevant institutions or organisms and are currently being solved or improved. The actions that are proposed are not intended to be *the* solution but rather to kindle some reflection about certain issues that must be considered a priority at this complex socio-economic crossroads and in this time of social changes that we are currently going through. The culture that is impregnating

In this new culture there are no longer watertight compartments, habitats or personal or work-related castles, in which many professionals had comfortably settled themselves in and in which some of them are still unthinkingly settled

The administration should not only do things well and ensure that what has to be done is done well, but also that is done by those that know how to do it best

the 21st century world generates irreversible transformations, which we must give some thought to. We should not think that when the outraged protesters on our streets arrive home they have left the world as it was. In many cases we do not see this culture and these transformations as our own and many professionals feel uncomfortable in a setting they do not recognise. In this new culture there are no longer watertight compartments, habitats or personal or work-related castles, in which many professionals had comfortably settled themselves in and in which some of them are still unthinkingly settled. There are many examples of this, especially everyday ones. Thus, in this new culture it is no longer politically correct for an educational centre, a faculty for instance, to decide on a programme of studies without first checking it against the opinion of other bodies (the Social Council, official association, etc.). Neither is it seen as correct for an association to decide, by itself, on the requirements needed to register as a member, or for the CNECS or a scientific society to decide on the kind or number of specialists that are needed without first coming to an agreement with other institutions. Today, a progressive administration knows that its first responsibility is not only to do things well but also mainly to ensure that what has to be done is done well by those who know how to do it. We must remember and accept that we are in a network of communicating vessels in which the knowledge and actions of everyone are conditioned by what others do. Communication and networks are inherent elements of the new culture. Working in a network requires new procedures, new methodologies and new goals that each institution will have to acquire and adapt. In a very short period of time the medical training paradigm has changed and, although an institution can make an effort, it can no longer do things well if it aims to do them isolated away from the network it belongs to, whether it wants to or not. It seems that synergy is here to stay.

Annex

Actions for the improvement of the competence of doctors

Introduction

This *Annex* proposes a series of actions to be used to generate a global plan for improving doctors' training. They are organised in five sections that include the different institutions or organisations involved in the education of doctors (see *Chart 3*).

It should be stressed, once again, that the proposal is unilateral, is not exhaustive and does not have any underlying dogmatising intent. Its intention is none other than to encourage debate and to get the Spanish institutions involved in doctors' training to reflect on their *social responsibility* in the education of doctors.

The priority actions of reflection that are proposed are ordered following the same sections as those shown in *Chart 3*:

- Institutions of educational system
- Institutions in the healthcare system
- Professional medical and biomedical organisations
- Industrial, commercial and intermediary organisations
- Citizens' organisations

1. Institutions in the educational system

1.1. Bachelor-Master's, Doctoral and Postgraduate training (Universities and Educational and Healthcare authorities
1.2. Specialist training (Healthcare institutions, Authorities, CNECS – National Council for Health Science Specialties, Teaching units, Heads of Studies, Tutors and others)
1.3. Training for CPD and CE (Providers, managers and intermediaries)

1.1. Bachelor-Master's, Doctoral and Postgraduate training (Universities and Educational and Healthcare authorities)

In putting their social responsibility into practice, Faculties of Medicine shall:

1. Take into account the healthcare priorities of the setting in which they are located, while at the same time defining the final product of their training process and the educational strategies required to achieve it.
2. Define, jointly with the other stakeholders involved, the final product of their training by defining the results, outcomes or final competencies of their graduates, and these final competencies shall be considered the backbone of the curricula.[p]
3. Facilitate new methods of governing the institution, i.e. governance, with the participation of the social agents in charge of laying down the lines of action to be carried out by the management teams of the faculties (decanal teams); this clearly opens up the possibility of students' and ordinary citizens' being able to participate.
4. Take the decisions and the steps necessary to create a suitable educational climate in which to obtain the best final product. More particularly, this shall be carried out in healthcare centres that are accredited to teach.
5. Make decisions and carry out the processes needed to implement the professional training (PT) needed by teachers and, more especially, they shall train members of teaching staff in the educational and evaluative methodologies required by the new learning processes.
6. Be permanently aware of the importance of the role-modelling played by their professionals in education. Hence, they will ensure there is a work climate that is conducive

[p] The importance of reaching an agreement with the other stakeholders' lies in the fact that the general public demands a doctor with competencies that go beyond the purely academic and technical.

to achieving the goals that have been defined and will foster the values that the general public expects of the medical profession.

7. Coordinate and integrate, together with all the other institutions involved in the training of doctors, within a network or matrix that offers training that is of a higher order than the sum of its parts. This will prevent the existence of watertight compartments, like the current specialised training (*MIR* training, in Spain) and will allow a real educational continuum to be established in doctors' training.
8. Be transparent in their goals, their management and their results, and they will periodically be called upon to account for both their decisions and their activities and achievements before the Social Council or the corresponding body or person in each case.
9. Submit the structure, planning and results of the training processes to mechanisms of recognition and accreditation that may be internal and external, local, national and international, in line with the principles of the pursuit of excellence, permanent improvement and social transparency.
10. Do all they can to ensure the recognition and accreditation processes are as specific as possible, closely related to the particularities of the health sciences and, more specifically, to medicine.
11. Make the process of admission to faculties of medicine easier, with an emphasis on aiming to select people who are well-suited to accomplish the competencies that citizens require of doctors.
12. Introduce into the curricula the concept that, in addition to their duties related with healthcare, doctors should also be expected to teach and research. As a result, training in teaching and in research will be core subjects in graduate studies.[q]
13. Permanently review the curricula to match them to the demands of society.
14. Periodically incorporate competencies (both generic or cross-curricular and specific) into the curricula in order to keep them in tune with the specialised training teaching plan.
15. Grant the generic or cross-curricular competencies the importance that society considers they deserve.[r]

[q] This is justified by the need to incorporate the values and to transmit the competencies of the knowledge society. This is not to say that a medical graduate has to be a great researcher and an excellent teacher. The idea is that their clinical reasoning must be based on scientific method and rigour. Moreover, regardless of whether they follow a career as a teacher or not, they must satisfy a minimum level of teaching conditions so as to be able to communicate effectively with other professionals and with patients.

[r] Some of the most important include: leadership, empathy, confidence, critical thinking, reflection, cognitive biases, coping with complexity and uncertainty, civic professionalism, health literacy, and so forth.

16. Give due consideration to the necessary incorporation of the new technologies (ICT) in order to prevent the occurrence of a digital gap that could have negative consequences for the patient.
17. Be aware of the fact that simply complying with the law, based on a set of minimum criteria, may not meet the expectations of society and, thus, they will have to give priority to their social responsibility in order to reach the goals those society demands of them.

1.2. Specialist training (Healthcare institutions, Authorities, CNECS, Teaching units, Heads of Studies, Tutors and others)

In putting their social responsibility into practice, the Healthcare-Teaching Institutions responsible for specialised training shall:

1. Ensure that the period of specialised training ends when a satisfactory level has been acquired in the defined competencies, which will have been demonstrated by means of the necessary and previously scheduled formative and summative assessments.[s]
2. Submit the structure, planning and outcomes of the training processes to mechanisms of recognition and accreditation that may be internal and external, local, national and international, and in line with the principles of the pursuit of excellence, permanent improvement and social transparency.
3. Be permanently aware of the importance of the *role-modelling* played by their professionals in education. Hence, they will ensure there is a work climate that is conducive to achieving the goals that have been defined and they will also foster the values that the general public expects of the medical profession.
4. Coordinate and integrate, together with all the institutions involved in the training of doctors, within a network or matrix that offers training that is of a higher order than the sum of its parts. This training will prevent the existence of watertight compartments, like the current specialised training (*MIR* training, in Spain) and will make it possible to establish a real educational continuum in doctors' training.
5. Be transparent in their teaching responsibilities and be accountable to the authorities or bodies applicable in each case.
6. Ensure that the defined teaching plan is applied in their institution, and specify the level of autonomy and responsibility of the resident physicians.

[s] It is the underlying formative concept that is of real significance; it is not the period of time that it takes but rather what is accomplished.

7. Permanently review the teaching plans in order to match them to the demands of society.
8. Incorporate competencies (both generic or cross-curricular and specific) periodically into the plan in order to facilitate CPD and CE.
9. Put all the professional competencies into context, with special emphasis given to the generic or cross-curricular competencies, such as clinical leadership, empathy, critical thinking and reflection, and coping with uncertainty.
10. Foster training aimed at improving the quality of care in patients by encouraging self-care and protecting the patient's vulnerability, in general, and that of the elderly in particular.
11. Encourage all figures involved in teaching, especially tutors, to develop and to demonstrate their competence in their teaching activities.

1.3. Training for CPD and CE (Providers, managers and intermediaries)

In putting their social responsibility into practice, the institutions responsible for CPD and CE shall:

1. Promote CE because it is a significant part of CPD.[t]
2. Integrate clinical practice with learning.[u]
3. Take responsibility for ensuring that CE and CPD comply with internal and external, local, national and international recognition and accreditation by seeking forms of accreditation and re-accreditation that have been validated internationally by the most experienced and renowned professional bodies, in consonance with the principles of searching for excellence, permanent improvement and transparency.
4. Promote observatories that make it possible to identify both the needs demanded by society and the gaps in the training of professionals, in both collective and individual terms.

[t] In addition to the intrinsic importance of CE, objectively assessing it in "CE credits", as is performed in different national or international agencies, is still performed for pragmatic reasons.

[u] They will have to bear in mind the principle of "learning by doing" formulated as "*you do while you learn and you learn while you do*", so that this basic kind of learning is complemented with training that is dissociated from day-to-day work, continuing education (CE), in which a series of different activities can be carried out, including courses, workshops, seminars, visits, congresses, innovation, research, and so forth.

5. Clearly define what continuing medical education (CME) is, distinguishing it from other training processes, especially from those aimed at granting professionals new training or qualifications.[v]
6. Encourage activities carried out with the intention of incorporating new competencies demanded by the healthcare system and by society in general.
7. Foster training aimed at improving quality in patients – health literacy – by encouraging self-care and protecting the patient's vulnerability, in general, and that of the elderly in particular.
8. Clearly establish the limits of CE providers, avoiding any possible conflict of interest from its outset.

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[v] According to the Continuing Medical Education/Continuing Professional Development Glossary of Terms (Rome CME-CPD Group. Last updated 2008): Continuing medical education consists of educational activities that serve to maintain, develop or increase the knowledge, skills and professional behaviours that a doctor uses to provide services for patients, the public and the profession. The content of CME is that body of knowledge and skills generally recognised and accepted by the profession as within the basic medical sciences, the discipline of clinical medicine, and the provision of healthcare to the public. The following is a note added to the entry for CME (FMC) in the *Glosario Europeo sobre FMC/DPC* (Wolters Kluwer Health. Madrid. 2008), a Spanish translation and adaptation of the original English version cited above. *In Spain, the LOPS* (Healthcare Professions Act) *defines Continuing Education as the permanent active teaching and learning process that all healthcare professionals have a right and an obligation to follow; it begins on completing their undergraduate or specialisation studies and is aimed at updating and improving the knowledge, skills and attitudes of healthcare professionals to enable them to keep pace with scientific and technological development and to meet the demands and needs of both society and the healthcare system itself. In more general terms, CME is usually defined as a set of educational activities that doctors undertake once they have completed their period of undergraduate and specialisation studies, in order to keep their competence up to date and which does not involve the awarding of any additional qualification (Translator's note).*

2. Institutions in the healthcare system

2.1. Employers/Management associations delivering healthcare services
2.2. Bodies involved in funding and regulating medical education (Central and autonomic governments and Public bodies)

2.1. Employers/Management associations delivering healthcare services

In putting their social responsibility into practice, the institutions and organisations that deliver healthcare services also involved in education shall:

1. Contribute in an orderly manner and to an appropriate extent in the three phases of the educational/training continuum, namely: graduate, specialised and continuing.
2. Coordinate with one another to form a network in which each structure has clearly assigned responsibilities, in which each of them is assigned the tasks that they are best prepared to deal with and in which none of them takes on more or less than the load that corresponds to them. All of this will be based on the principle that nobody can do everything well and that the results obtained by everyone working together are greater than the sum of the parts.
3. Be responsible for generating and maintaining the work climate that best suits the patient's interests, that is a *person-centred* [w] climate, rather than the interests and conveniences of the actual institution or organisation.
4. Favour clinical leadership, understanding it to be an improvement in the quality of the care of the patient.
5. Favour civic professionalism as an improvement in the quality of the healthcare system.
6. Stimulate the training of professionals in order to improve health literacy in society.
7. Employ/engage professionals according to their proven capabilities and competencies.
8. Identify and recognise the CPD [x] reached by their professionals, as well as stimulating and fostering it in order to maintain, improve and match their competencies to the task

[w] As opposed to disease-oriented.

[x] Continuing Professional Development (CPD) must be seen from a global and integrating perspective as being composed of different elements of training, of appraisal of the healthcare, teaching and research activity, of the capacity to respond to changes in the surroundings, of the capacity to reflect on one's own practice and its social repercussions and, in short, of the progress made in competencies. To this end, its assessment and recognition must be dynamic (what you do and how you do it) and not static like the curriculum (what you are).

they are to perform; additionally, if necessary, they will detect the shortcomings that can be resolved with CE or any other educational process.

9. Assume, as a consequence of the previous point, the twofold institutional responsibility of detecting and resolving (by applying appropriate measures) the issues related to the professional competence of their doctors.
10. Contribute to ensure that the professionals carry out the healthcare activity focusing on the (biological/physiological?) processes involved and moving within transversal structures instead of doing so in vertical structures focused on the illness.
11. Possess the mechanisms needed to measure clinical outcomes as an elemental norm of internal quality as well as making them available to the regulatory bodies with a view to improving the processes of certification (of professionals) and of accreditation (centres and programmes).
12. Remain transparent in their actions before the general public and be accountable to both the bodies hierarchically above them and to the professionals from their institution/organisation, since they are the ones that provide knowledge and therefore give the institution/organisation value.

2.2. Bodies involved in funding and regulating medical education (Central and autonomic governments and Public bodies)

In putting their social responsibility into practice, the Funding/Regulating Bodies shall:

1. Guarantee the training of competent doctors.
2. Make it easier for anyone who has a certified competence to perform their professional labours by making any regulations that do not offer an added value to the system more flexible and, if necessary, deregulating them.
3. Delegate or, should it be the case, give back to the different agents the tasks which they are qualified to do (empowerment), while they themselves remain ultimately responsible for the delegated duties and for supervising them.
4. Encourage periodic processes of validation/certification as a basic link in the process of guaranteeing the patient's safety and as a mechanism to detect medical malpractice.
5. Ensure the implementation of professional certification and recertification systems based on the principles of the quest for excellence and permanent improvement, whilst orienting those certification and recertification systems towards the processes that are most widely recognised and readily comparable in the international scenario.

6. Use the clinical results and health indicators as essential elements (in assessment?) of the quality of professionals and, in consequence, in the processes of certification and recertification.
7. Evaluate the real cost of training a doctor over the whole of the educational continuum, as well as the cost to the healthcare system of malpractice or iatrogenic actions.
8. Ensure, bearing in mind that funding is limited,[y] that there are sufficient financial resources during the different stages of doctors' education.
9. Justify, together with the other stakeholders, the limits of funding for medical training.[z]
10. Come to an agreement with the other stakeholders about the investments related with the education of doctors in order to finance what the general public sees as essential.
11. Guarantee that the processes involved in the education of doctors have a structure that is as flexible as possible and especially so in the case of the training of specialists.[aa]
12. Improve the process of access both to the degree in medicine and to specialised training, bearing in mind the goal of selecting the doctors who are best suited for the competencies that the general public demands of practising physicians.
13. Create the conditions under which doctors undergoing their training can participate and be integrated within activities that generate knowledge and, in particular, in research projects that are carried out at the different centres, both as undergraduates and in specialised training.
14. Foster new forms of government, i.e. governance, in healthcare institutions to allow for the participation of the social agents responsible for defining those lines of action to be developed by the management teams of the institutions.
15. Optimise the existing HR and be responsible for covering both the healthcare and the educational activities.

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[y] The Authorities have a limited budget and therefore investing in or spending on one thing limits the amount that can be invested in or spent on another.

[z] Medical education requires both resources and public infrastructures, and hence both transparency and accountability are absolutely essential throughout all the different stages of the process.

[aa] The aim of this is to make it easier for professionals and healthcare managers to assign tasks based on competencies, obviously taking it for granted that there are no competencies that are exclusive to one medical specialty and that any given task can be performed by the specialist who is recognised as knowing how to do it.

3. Professional medical and biomedical organisations

3.1. Consejo General de Colegios Oficiales de Médicos (CGCOM), Official Medical Associations and other official associations
3.2. Scientific societies/institutions

3.1. Consejo General de Colegios Oficiales de Médicos (CGCOM), Official Medical Associations and other official associations

In putting their social responsibility into practice, the Consejo and the Official Medical Associations shall:

1. Commit themselves, by means of appropriate agreements, to making their knowledge available to the educational structures of graduate, specialised and continuing education so that these structures can define the outcomes and final competencies in a suitable way.
2. Undertake the commitment to promote the professional competence of practising registered physicians through internationally recognised certification and recertification processes.
3. Use healthcare activity, clinical results and health indicators as significant indicators in the certification and recertification processes.
4. Encourage a culture of permanent learning and self-evaluation among their members.
5. Offer appropriate initiatives and make available the resources required to keep the professionals permanently up-to-date, as well as for the remedial programmes needed for professionals whose assessment displays shortcomings or deficiencies.
6. Safeguard professional competence as a whole but focus their interest on the generic or cross-curricular competencies, since other institutions will do the same with the specific competencies.
7. Promote civic professionalism so that it extends throughout the whole of society.
8. Foster clinical leadership in all healthcare institutions and the national health system.
9. Safeguard the quality of the healthcare provided by the health system for each patient and particularly for the more vulnerable patients.

10. Act as promoters of good professional practice, safeguarding it and making it known to the general public, putting it before their own corporate interests in the same way that doctors put the patient's interests before their own.[bb]

3.2. Scientific societies/institutions

In putting their social responsibility into practice, the Scientific Societies shall:

1. Commit themselves to making their knowledge available to the educational structures of graduate, specialised and continuing education so that these structures can define the outcomes and final competencies in a suitable way.
2. Act to ensure that the knowledge within a certain speciality (the state of the art) is always up-to-date by disseminating it through all the channels they have available to them, such as guidelines, protocols, ICT, and so forth.
3. Undertake a commitment with official associations to develop the processes of certification and recertification of professionals with the aid of the specific knowledge from their respective specialities.
4. Use healthcare activity, clinical outcomes and health indicators as significant indicators in the certification and recertification processes.
5. Foster clinical leadership in all healthcare institutions and the national health system.
6. State interests that they identify as their own and they will take care of, and possess suitable mechanisms to avoid any conflict of interest.
7. Coordinate with other stakeholders with educational responsibilities to safeguard the continuum of the educational process whilst taking specific responsibility for CE.
8. Take responsibility for defining the specific competencies of their respective fields and will adapt them to each of the stages of education, i.e. graduate, specialised and continuing, drawing up educational programmes for certain credentials if needed.
9. Commit themselves to the analysis and dissemination of evidence-based practice, by participating in committees or workgroups within their respective areas of knowledge.
10. Undertake the commitment to set standards for clinical practice by participating in their definition and unification; likewise, they will endorse proven guidelines or other means of ensuring good practice.

[bb] The fact that doctors represented by their corporate structures put the patient's/citizen's interests before their own is the reason why both doctors and the profession gain the characteristic respect and social prestige in the eyes of society. As a result, the benefits of "medical corporatism", in which the responsibilities taken on are greater than the privileges that are granted, must be acknowledged.

4. Industrial, commercial and intermediary organisations

- Pharmaceutical, biotechnology, technological equipment and ICT industries
- Commercial/intermediary organisations (MECs)

In putting their social responsibility into practice, the Industrial, Commercial and Intermediary organisations shall:

1. Have to consider themselves stakeholders with responsibilities in the training of healthcare professionals.
2. Incorporate the improvement of healthcare in the national health system as part of their professional principles.
3. As part of the country's healthcare structure, take responsibility for gaining and enhancing society's confidence in both the healthcare system and in their own institutions/organisations.
4. Have an up-to-date code of good practice, drawn up and periodically reviewed with the help of the other stakeholders so as to defend citizens' interests.
5. Be responsible for looking for new ways of returning to society part of their profits.[cc]
6. Take responsibility for improving health literacy in all their activities and actions that are directly related to the general public and promoting it in all the activities that they sponsor.
7. Actively foster civic professionalism at all levels and in all activities, with special attention to the healthcare professions.
8. Implement procedures that make it possible to see the transparency of the activities related with professionals' education.
9. Contribute to the funding of medical education programmes, CPD and CE, by sponsorship, ensuring the independence of the organising body, and especially the administration of the activity, at all times.
10. Draw a clear distinction at all times between:
    a. CPD and CE activities or programmes, in which their relationship would be limited to sponsoring them, and

[cc] There are currently different approaches to this issue, one of the most notable being that of the philosopher Thomas Pogge (Professor at Yale University), who favours the creation of a Health Impact Fund (HIF). The HIF is a new proposal for encouraging the research and development of medicines that are very useful for reducing the morbidity rate of the world's population by changing the traditional system for patenting new drugs.

   b. activities aimed at informing about and/or promoting products, in which they will act as promoters and sponsors.
11. Sponsor CPD and CE activities included within the training programmes of professional institutions or of the teaching units of healthcare organisations, these institutions and organisations being responsible for providing the scientific knowledge and management resources required by any medical training process.
12. Be responsible for ensuring that the CPD and CE activities have obtained scientific accreditation[dd] from an internationally recognised accrediting body.
13. As sponsors and in collaboration with the promoters of the activity, be responsible for ensuring that the conditions of access to the activities or medical training programmes are made known to all interested professionals.

[dd] The promoter being responsible for negotiating the accreditation.

5. Citizens' Organisations

- Citizens' and patients' associations
- Social networks

In putting their social responsibility into practice, Citizens' Organisations shall:

1. Demand civic professionals, that is, professionals who work with citizens instead of acting upon citizens, and they will call for the medical act to be steeped in solid democratic values.
2. Demand the right to participate in the governing bodies of the different institutions or organisations related with the education of doctors, as informed and committed citizens.
3. Accept representation in all the participating bodies established by the different institutions or organisations related to doctors' education.
4. Urge the political class, the government and all the relevant authorities to provide new forms of government in the academic and healthcare institutions that are responsible for doctors' training, i.e. governance, so that they include the participation of the social stakeholders that must lay down the lines of action to be carried out by the respective management teams and executives.
5. Offer to collaborate in any phase of medical education, since the patients themselves are a source of information and a training resource.
6. Transmit the citizens' demands; they will act as the citizens' advocates, especially so in the case of the vulnerable and weak.
7. Demonstrate the problems that can result from low levels of health literacy.[ee]
8. Encourage the collaboration of philanthropic organisations.

[ee] Some of these problems include the capacity to understand the instructions on the packaging of medicines, appointment slips, medical-healthcare education leaflets, consent forms or the ability to negotiate complex healthcare systems. It therefore covers a complex group of reading, listening, analysis and decision-making skills, as well as the capacity to apply this knowledge to healthcare situations.

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