The impact of global processes on health systems in Europe

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Summary

The relationship between globalization and health systems is a complex one, where both positive and negative influences are reported. This paper explores the impact of globalization on European health systems and emphasizes the need for national policy-makers and leaders to consider global processes when designing national health systems. The importance of Brazil, China and India for European health systems is also addressed. A framework for including the dynamic and interconnected elements of healthcare systems and their relation to good health is introduced and discussed for relevance from a systems perspective. The dynamic mobility of ideas and innovations, goods, services and capital, individuals and microbes all interact with the core building blocks of a national health system: leadership, financing, medicines and technology, human resources, information and service delivery. Particular emphasis is placed on the centrality of the patient, as well as patient mobility and medical tourism, health workforce (including migration), innovations (including information technology and social innovations) and European values.

The paper considers, without examining in depth, the influences of trade agreements and neo-liberal policies on policy-making, as well as the connection between health tourism and the pharmaceutical industry. Had space permitted, these topics would have warranted greater examination as they are certainly complementary. A main question is whether Europe will continue to play an innovative role in research and development for new pharmaceuticals and other technologies.

The novel phenomenon of ‘innovative developing countries’ (IDCs) is discussed along with the need to establish new types of partnerships between European and IDC firms. Social innovations in health systems include organizational arrangements, management, patient-centred care processes, and professional practice improvements in order to ensure a rational uptake of new drugs and diagnostics. Here, Europe has a major opportunity. Other opportunities include a changing health market, where the health economies of Brazil, China and India will accelerate their demand for healthcare as their citizens move into higher income brackets. Populations such as those in the European Union are emerging with similar demands.
European health systems are essentially a product of past political will. A combination of value-driven policy, emphasizing social justice, equity, responsiveness and universal coverage, needs to take the various forces of globalization into consideration, including the privatization of healthcare. Mechanisms for fair financial contributions and pre-payment schemes need to be urgently developed, particularly in some countries. Information technology has the potential to empower patients, who have greater demands, and to create a more consumer-oriented system. The rapid commercialization of healthcare, however, needs to be steered wisely by national policy-makers, taking into account ‘information asymmetry’ as well as the behaviour of multinational companies. Health worker migration takes place across borders, but is often the result of the movement of workers from resource-poor settings around the globe, and from eastern Europe, into Western Europe. Those national health systems within receiving European countries, and also those in European countries of origin, should increase their efforts to develop and implement sustainable health worker policies that limit the drawing of much-needed and highly educated workforce from low-income country health systems. The Global Code of Practice on the International Recruitment of Health Personnel is a good tool here. In the spirit of the document, *The EU Role in Global Health*, this paper attempts to provide further direction and emphasizes the need to step up our current dialogue on health systems policy.

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**Preamble**

Our world is changing rapidly with increasing life expectancies and improving child survival rates. Globalization has contributed to economic growth. In addition to global economic integration, globalization incorporates the mobility of capital, goods, services and labour, and can be said to be part of an ideological process justifying neo-liberal economic policies. Globalization is also a dynamic process of global interconnectedness influenced by a number of driving and constraining forces such as technological developments, political influences, economic pressures, changing ideas, and greater awareness of social and environmental concerns. Inherent to globalization is the phenomenon of cross-border flows and, in healthcare, this includes the cross-border movement of people – both as health consumers and healthcare providers – as well as the cross-border movement of pharmaceuticals, technology and health-related information.

Health is now high on the political agenda, and health-related issues are gaining increasing attention at the global level. Distinctions made between domestic (that is, national) and international health problems are therefore losing utility within the global forum. Despite these factors, the forces of trade and migration are not new. Indeed, the expression ‘citizen of the world’ was coined by the Greek philosopher Diogenes in the fourth century BC. What is new, however, is the pace, range and depth of integration of health-related activities.

Similarly, health systems can be viewed as an orchestra of interactions and modifications, both influencing and adapting to challenges occurring at the national and international levels. The essential role of a national health system is to improve people’s health, a point emphasized in a number of publications since the World Health Organization’s *The World Health Report 2000 (WHO, 2000)*, and which was re-confirmed for WHO’s European region in *The Tallinn Charter: Health Systems for Health and Wealth 2008 (WHO, 2008)*. Some of the specific challenges to the success of national health systems in the European region are the demographic and epidemiological changes that accompany an ageing population and, in several countries, changes to the workforce, widening socio-economic disparities and increasing social expectations. Internationally, all member states of the World Health Organization (WHO) share a common goal of the highest attainable standard of
health as a fundamental right: each country shall strive to enhance the performance of its health system to achieve the goal of improved health on an equitable basis. Equitability entails a fair distribution of the burden of funding, according to people’s ability to pay, and the responsiveness to people’s needs and preferences. It also means having access to good quality care provided by a health workforce of a high standard and, not least, a national stewardship for developing and implementing health policies and regulations.

Globally, policy-makers have moved towards the greater development of private healthcare – a trend likely to be detrimental to the more vulnerable members of society. Such a level of restructuring contributes to the ‘inverse care law’, where those with the greatest needs tend to receive less opportunity for healthcare and/or healthcare of poorer quality. In addition, the recent economic downturn has weakened governments’ spending power on health systems. In such a climate, health reforms emphasize – to a large extent – individual choice and not solidarity, thereby creating a scenario whereby individuals are responsible for their own healthcare needs.

Examples of the various health challenges facing individuals as well as global health systems include ‘microbial traffic’ (spreading infections and antimicrobial resistance via large-scale air transportation) and negative changes in lifestyle (such as poor dietary habits and sedentary living), all of which pose long-term burdens on health systems. Similarly, low air fares combined with high-cost medical interventions – in the context of high levels of out-of-pocket spending – have led to medical tourism with people flying across the globe for medical treatment. The migration of health personnel and the cross-border trade in health services offer significant challenges to existing health systems. In Europe, for example, the UK stands out as being a major recruiter of doctors trained abroad. The appropriation of medical expertise can also be considered against a framework of ethics, which complicates both the positive and negative forces of globalization.

In recent years, we have experienced a rapidly changing economic climate, where the rise of Brazil, China and India as major economic players offers a prime example of the dynamic nature of globalization. We see examples where societies that were once governed more rigidly are now taking on roles formerly played by Europe. On other levels, questions are being posed as to whether Europe will continue to be innovative, as the already high cost of technology and medicine continues to escalate. Will Europe soon face additional challenges if innovative low- and middle-income countries (LMICs), including Brazil, India and China, follow the example set by Japan, a country that moved from producing poor imitations of Western products to being highly innovative in the laboratory and factory?

Aims and methods

This paper considers the impact of global processes on European health systems, and the primary ways in which the ever-adapting forces of globalization influence health worker migration, patient mobility and innovation. This review is by no means exhaustive, but it does aim to address the interdependence of Europe’s own national health systems as well as its wider responsibility for global health. The paper describes how interdependence and responsibility are influenced by factors not restricted to the European region, and how there is a clear need for national policy-makers to consider global processes in the design of national health systems. The latter reflects a need to develop not only national policies, but policies that are truly global. For this purpose, an unsystematic literature review was carried out of material written in English, whilst data was sourced from three main areas:

1. databases, mainly Medline and Web of Science
2. publications of organizations such as the European Observatory on Health Systems and Policies and the World Health Organization
3. generic web searches through Google and Google Scholar. Complementary information was sought from key informants, who were consulted by telephone and e-mail
“It really boils down to this: that all life is interrelated. We are all caught in an inescapable network of mutuality, tied into a single garment of destiny. Whatever affects one directly, affects all indirectly.”

Martin Luther King Junior

Globalization

An attempt to embrace a single definition of globalization is admittedly difficult. Generally speaking, globalization can be defined as the increasing, worldwide integration of economic, cultural, political, religious and social systems. In many ways, the process of worldwide integration is driven primarily by economic globalization – a process in which the entire world becomes a single market. This means, functionally, that goods and services, as well as capital and labour, are traded on a worldwide basis. However, it also provides an economic opportunity for the circulation of information and the results of research to flow readily between countries (Black et al., 2009). Technology is also a major driver.

Unfortunately, this definition cannot escape its own ambiguity. Elsewhere, definitions have attempted a more precise visualization as based, for instance, within an historical context:

Globalization is the growing interconnectedness between political, social, and economic systems beyond national or regional borders. The international regulation of politics, and the global conduct of commerce and finance, is as old as the establishment of individual states. New developments towards the end of the twentieth century were characterized by: 1) the accelerating pace of communication through the worldwide web and satellite systems. 2) the spread of more global cultures of consumerism and popular culture; 3) the internationalization of domestic problems, e.g. through migration and social movements; 4) the apparent victory of capitalism after 1989, as a result of which the world was organized according to similar principles of political economy; 5) a culture of dramatic innovation and fluctuation at the workplace, which caused a great sense of dislocation as jobs and social systems were no longer secure. (Palnowski, 2008)

The pace and process of development, and the content of globalization (as well as the current global situation), are relatively new to us, even though globalization itself is not a new phenomenon. In fact, the term is no older than 40 years, but the phenomenon itself began with migration from Africa many thousands of years ago. Nevertheless, globalization in the modern sense occurs because it does not follow an inevitable path, and it is both the reason for and the consequence of recent developments that depend heavily on national and
international policies (ILO, 2004; Koivusalo, 2006). Many of these developments go beyond the simple integration of the world’s economies, despite the fact that economic globalization has been driving the process in recent decades (Woodward et al., 2001). Economic globalization has substantially stimulated the global mobility of capital, goods, services and labour, and has supported such transnational actors as non-governmental organizations (NGOs) and multinational corporations. Its effects have extended to issues such as regulations, rights, risks and responsibilities – and therefore to global governance and the impact of legal agreements. One example of this process is the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). Economic processes have therefore had substantial influence on the ideological workings behind globalization, which have encompassed economic liberalization and the relationship between policy priorities (Koivusalo, 2006). The underlying outcome of economic globalization offers an interconnectedness amongst these various processes, prompting us to note that minor influences are just as important as major influences. We might well move into the future giving consideration to this inherent complexity, and thereby approach the phenomenon of globalization in more comprehensive terms.

Global health systems

For as long as people have endeavoured to protect their health, there has been some kind of health system. In today’s world, a health system constitutes the totality of “organizations, people and actions whose primary intent is to promote, restore or maintain health” – including the determinants of health – and whose performance is best measured by their impact on the health outcomes (WHO, 2007). A focal shift can currently be observed in the global health agenda, from disease-specific approaches to the strengthening of health systems (Reich and Takemi, 2009). Despite the fact that some contexts have shown significant changes, others are too fragile to deliver change in a rational way, irrespective of access to new technologies. While local health systems are defined in various ways, the WHO’s international health systems policy has been defined since 1978 by the Alma-Ata Declaration, which comprises a comprehensive yet broad focus, and includes not only the provision of services but also various aspects of health protection and promotion. The World Health Report 2000 brought into this framework an emphasis on social security (covering aspects of financing) as well as issues of leadership and governance (WHO, 2000). The 2009 WHO report on primary healthcare has since strengthened this global approach and its broad framework of health systems and functions.

WHO has characterized health systems as comprising six basic building blocks, or subsystems, and four overall goals, as shown in Figure 1:
More precisely, good health services are those that deliver effective, safe and quality personal and non-personal health interventions to those in need of them, in a timely and geographically appropriate manner, and with a minimum waste of resources. A well-performing health workforce is one that works in ways that are responsive, fair and efficient in order to achieve the best health outcomes possible, given available resources and circumstances (that is, that there are sufficient staff – fairly distributed – who are competent, responsive and productive). A well-functioning health information system is one that ensures the production, analysis, dissemination and use of reliable and timely information on health determinants, health system performance and health status. A properly functioning health system ensures equitable access to essential medical products, vaccines and technologies of assured quality, safety, efficacy and cost-effectiveness, as well as their scientifically sound and cost-effective use. An appropriate health financing system raises adequate funds for health, in ways that ensure people can use needed services, and are protected from financial catastrophe or impoverishment associated with having to pay for them. It provides incentives for providers and users to be efficient. And finally, leadership and governance involves ensuring that strategic policy frameworks exist, and are combined with effective oversight, coalition building, regulation, attention to system design and accountability (WHO, 2007). A limitation of the model is that health promotion and prevention tends to be little emphasized. According to the WHO model, these building blocks work together in a dynamic way, and it is the interactions and complex relationships between them that convert the blocks into a system with the patient at the centre.

There are, at present, a number of initiatives to strengthen existing national health systems, not least in resource-poor settings. Frenk (2010) underlines the importance of having a clear concept of national health systems in his article ‘The Global Health System: Strengthening National Health Systems as the Next Step for Global Progress’. He addresses national health system performance, as well as the role played by global actors, and the paper begins by underlining the component interrelations in line with WHO’s ‘systems thinking’. Frenk goes on to seek a more dynamic view of the role that the population and individual patients might offer, as beneficiaries of the system and also as a part of it. Performance should be measured not only in terms of delivery of service, but across all components, including stewardship, financing and the workforce. Frenk’s prescription for better performance includes four elements: leadership, institutions, systems design and technologies (LIST). Furthermore, various resources (for example, human, financial and technological) must be coordinated through good systems design in order to deliver good quality services to those in need.

Europe and its health systems

The question of what defines Europe and its borders is not uncomplicated, but the answer includes geographical, political and cultural properties what help to define Europe as the total sum of all its parts. In this paper, the definition of the UN’s Population Division will be used. It divides Europe into four regions: Eastern Europe, which includes Belarus, Bulgaria, the Czech Republic, Hungary, Poland, the Republic of Moldova, Romania, the Russian Federation, Slovakia, and Ukraine; Northern Europe, with Denmark, Estonia, Finland, Iceland, Ireland, Latvia, Lithuania, Norway, Sweden and the United Kingdom; Southern Europe, which includes Albania, Andorra, Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia, Greece, Italy, Malta, Montenegro, Portugal, San Marino, Serbia, Slovenia, Spain, and the Vatican City; and Western Europe, with Austria, Belgium, France, Germany, Liechtenstein, Luxembourg, Monaco, the Netherlands and Switzerland (UN, 2009). The total population of the European Union (EU) in 2009 was 732 million and is estimated to fall to 691 million by 2050, while the world population was 6.829 billion in 2009 and is estimated to reach 9.150 billion by 2050. The average annual growth rate in Europe was 0.23 per cent in 1975–2009, and is estimated to be negative (-0.14 per cent) in the period 2009 to 2050. The median age in 2009 was 39.9 years and is expected to reach 46.6 years by 2050. In 2005, life expectancy at birth was 75.1 years and is forecast to rise to 81.5 years by 2050 (UN, 2009). There was notable variation in gross national product (GNP) between European countries: in 2008, Moldova had GNP of US$ 2,989 per capita – the lowest in Europe – while Luxembourg had the highest GNP at US$ 84,713 (UNECE, 2010). The average income for the EU-27 countries was 26,300 euros per capita (Eurostat, 2010).
Figure 2 illustrates the health and financial situation in European countries. Europe generally scores well in terms of health – measured as life expectancy at birth – compared with the overall global situation, although there are a few exceptions such as Russia and Ukraine. The core ideals of European healthcare systems are similar among the different countries: high-quality services, responsiveness, efficiency and universal access. Nevertheless, the adopted approaches to health systems vary depending on an individual country’s culture, history and politics, as well as on its institutional and legal traditions (Dubois et al., 2006). Health expenditure in Europe varies from country to country, from between 3 per cent of GNP in Albania to 11 per cent in Germany. Health systems are socio-historic constructs reflecting various political, historical and economic influences, and their typologies can crudely be described as ‘Beveridge’ (largely public-funded) or ‘Bismarck’ (largely funded by mandatory health insurance). The geographic location of Baltic countries creates a natural orientation towards the Scandinavian model, mainly financed publicly, whereas countries such as Poland are influenced by Germany. Even if governments subscribe to the principles of solidarity and universality of care, in reality, accessibility and the range of services covered, the scope of user choice, cost-sharing and mechanisms of reimbursement still vary from country to country. Public taxation and social health insurance are the main sources of funding in almost all European countries, but even voluntary insurance and out-of-pocket schemes play an important part in funding. The mixture of these features is unique for each nation, and does not follow the regional definition (Table 1 in Appendix 1). For example, taxation is the predominant source (37.5 per cent) of funding among European countries, yet in Moldova out-of-pocket payments represent over 40 per cent of total expenditure. Social insurance contributions are the main source of funding in Croatia, the Czech Republic, Estonia, France, Germany, Hungary, Luxembourg, the Netherlands, Slovakia and Slovenia (Mossialos et al., 2002). Informal payment schemes exist, both in Western and eastern Europe, but are more significant in eastern European countries (Figueras et al., 2004). Figure 3 depicts the relationship between government spending and the share of total health expenditure from out-of-pocket payments. Although The World Health Report 2000 marked the onset of a concerted effort to move away from direct to pre-payment healthcare financing mechanisms, in several European countries out-of-pocket spending still represents more than one third of total healthcare expenditure. Romania currently spends less than any other country in the EU and, because of the worst recession on record, it plans to spend even less in the future. This underfunding and the brain-drain of medical staff was recently referred to as ‘Romanian health care on verge of collapse’ (BBC, 2010). In the last 20 years, there have been 19 health ministers and since 2007, some 5,000 doctors left for Western Europe.
Globalization and health systems

The relationship between globalization and health is a complex one and, while this paper does not focus on health but on health systems, it does aim to discuss some aspects of globalization that directly affect health. In this light, national health systems in Europe find themselves related to and impacted by influential factors from outside the region. Global economic pressures, international political influences, the increase in social concerns—which result from the mass movement of people, goods and ideas, as well as advances in new technologies and information systems—have multifaceted influences on patient choice and mobility, the migration of health workers in and out of Europe, and the development of health innovations and technology. More specifically, globalization can have an effect on health through economic growth, often resulting in much-disputed impacts (Koivusalo, 2006; Kjellström et al., 2007); through the resulting impact of people moving from country to country (not to mention the impact of moving cattle, poultry or other live domestic animals) in the form of infectious disease transmission (Koivusalo, 2006; Pang, 2004); through trade regulations that affect the availability of food or medicines; and through the promotion of such unhealthy or hazardous products such as certain foods, alcohol, tobacco and drugs (Koivusalo, 2006). As a result, globalization affects not only the mobility of goods, people and capital, but also the rules and grounds on which these are regulated. Globalization affects health systems, implying an ability to impact public resources and health system organization and finance, as well as the determinants of health. These include the distribution of risks and resources within societies, as well as the digital divide.

The modern sense of globalization—as an intrinsic global phenomenon—is perceived under increasingly comprehensive conditions (Huynen et al., 2005). This idea is supported by the recent scientific acknowledgements of political economists such as Elinor Ostrom, who won the Nobel Memorial Prize in Economic Sciences from the Swedish Academy of Sciences in 2009 (Swedish Academy of Sciences, 2009), partly for her work on the polycentric, that is, the socio-ecological characteristics of complex systems. The time is therefore ripe for critical thinkers of globalization to embrace its effects in their entirety. Applying Ostrom’s work to the institution of a globalized health system helps to define the complexity resulting from globalized processes. These processes have been influenced over time by the internal and external forces of various actors, and they eventually link with each other to form potential outcomes as well as net costs and benefits. The ultimate pay-off is that successful costs and benefits would create longevity within the system. Ostrom’s model finds a place for unsuccessful costs and failures as part of the underlying practices of a successful system. Where health systems apply, the demand created by the boundaries between health users and health resources become, over time, clearly defined and thereby offer a congruence between costs and benefits. Health users at the individual level in this ecological framework are entrusted in making their own rules for use, but are still clearly defined within the boundaries constructed by the health system, which is also entrusted with making its own beneficial rules. According to Ostrom, part of this system-level trust involves a regular monitoring of individual use and resource utility, as well as ensuring that resource conditions continue to exist in beneficial ways. An ecologically driven health system would maximize conflict resolution and would assume that individual as well as large-scale cooperation exists within common-pool resources. The complexity and adaptive nature of health systems are therefore acknowledged in spite of the individuality presented by local or national characteristics.

Plesk and Greenhalgh (2001) addressed the challenge of complexity by describing health systems as flexible adaptive systems against a more linear (yet intuitive) system. The authors contend that the latter paradigm is unable to cope with non-random outcomes and may even resemble theoretical chaos because reform is never able to anchor itself back to its inherent linear structure (where A is always presumed to lead to B). In a flexible and complex adaptive system, however, a collection of individual agents has the freedom to act in ways that are not always predictable, and their actions are interconnected so that one agent’s actions change the context for other agents. Because the agent can change as well as respond to changes occurring among other agents, the complex system allows for adaptation to occur over time. Adaptive behaviour within this system of different agents can therefore offer positive or negative effects, or flows that move between the two. Both Ostrom and Plesk and Greenhalgh conclude that to cope with the complexity of a system, one must abandon linear thinking and accept unpredictability. With the abandonment of negative predictions comes a respect for the use of autonomy and creativity, allowing for a flexible response to the emerging patterns and opportunities offered by the processes of globalization. Our recognition that health systems are complex, adaptive structures exists despite the key challenge facing most research on globalization: there remains an appreciable need to match the scale of globally impacted problems to the social and political (that is, governing) mechanisms devised to cope with them (Young et al., 2006). This remains true for health systems and their vast global influences. But how might Europe meet this challenge?
Previously, health policy and systems were traditionally seen as bounded by the nation state. In recent decades, a more global focus on health policy and management has emerged. Woodward et al. (2001) created a framework primarily mediated by economic factors, and differentiated between direct and indirect effects and their impact on health, including individual risk factors for the health system. Labonte and Torgerson (2002) developed a framework to explore economic globalization and international governance, in order to follow the route from globalization to health. More recently, Huynen et al. (2005) presented an ecological framework designed to encompass the dynamic and interactive complexities of globalization described above. A detailed presentation of these models is beyond the scope of this paper. However, a modified version of the socio-ecological framework is illustrated in Figure 4. It presents the various aspects of globalization and the adaptive elements of health systems that are likely to be related to good health. Conceptually, all the players within the figure – including a centralized patient – are dynamic, mobile and co-evolving: goods, services, ideas, innovations, individuals and microbes etc. Simultaneously, the factors of leadership, financing, information, service delivery, medicines, technologies etc., operate within their own dynamic response to the fluctuating environment in which they coexist. The complexity arises when each force – that is, each dynamic force – operates for or against the other forces within the system but still moves forward in a circular momentum. One might even imagine that the centralized patient platform moves upwards over time. In this way, the various impacts offered by globalization can be appreciated against a backdrop of resilience, vulnerability and adaptability with regard to particular challenges (Young et al., 2006).

Outlined here is the idea that socio-ecological pressures influence an adaptive interdependence among nations – including their sovereignty – as well as among global markets and trading systems, and the sharing of information and various types of mobility (at an increasing speed), which results in cultural flows. Such flows become inherent to ecological-based reform because they inevitably raise expectations on health systems and their responsiveness, as well as affecting their financing and regulatory policy space. However, health system reform has so far not been at the core of globalized considerations, beyond the prevention of epidemics and public health measures. Approaching reforms at this point is to recognize that system components such as global markets and their functioning mimic natural laws and arise from the global trading patterns, priorities and rules that govern trade and commercial policies. Implications of trade considerations have become more important as a result of negotiations concerning intellectual property rights, innovation, counterfeits and enforcement, as well as of investments and the trade in services. In this context, global negotiations on commercial policies also affect national policy space for health. These elements fit the ecological framework as the machinery driving globalization forward.
Centrality of the patient and European values

One major element of globalization is the spreading of ideas. Health systems in Europe have traditionally been designed around risk-sharing, risk-pooling and the promotion of collective values over individual choice. In the European Union these values are clearly articulated in the context of European Council conclusions on values (European Council, 2006). Nevertheless, it is likely that these aspects will become challenged if citizen rights and patient involvement become understood as consumer choice in the services market (Tritter et al., 2010). European Union policies and internal markets are also part of broader global policies and adaptive reform. Furthermore, the global economy is changing (i.e., adapting) rapidly, and many countries are experiencing radical economic, social, institutional and political transformations. A reliance on neo-liberal ideas in modern health reforms presents the market and the privatization of healthcare as leading the way. However, an increasing awareness of healthcare specificities, and their relationship to concepts such as information asymmetry and market failures, is presently under way and were recognized recently at the international conference, EU and Global Health. Specificities such as health products, services and knowledge therefore become an important part of export and trade in and outside of Europe. In such a dynamic climate, values such as universal coverage for high-quality healthcare become essential. The new European health policy (in the context of WHO) addresses a sustainable development of health systems, as well as a holistic approach to health systems as outlined in The Tallinn Charter (WHO, 2010).

Health systems not only cover the provision of health services and medical care, but also the ways in which the social determinants of health and public health policies are tackled at both the global and European level. One aspect of this has been to recognize the role of other policies for health and the social determinants of health as being part of the effort to enhance ‘Health in All’ policies in the European Union (European Council, 2006). While intersectoral action and the social determinants of health have already been partly recognized by European and global policies, the capacity to understand, act and assess the implications of and connection to other health policies, as well as the policies regulating health system organization and financing, remain a challenge to European health systems and their ability to reform under the pressures of globalization.

Patient mobility

The forces of globalization related to patient mobility include the interconnectedness of health economics with national and international politics, the social elements of patient choice and the ability to pay, as well as the variation in technical developments found across the globe. This activity is referred to as ‘medical tourism’ and it involves individuals travelling across national borders, or from one continent to another, to receive clinical, surgical or hospital care (Carrera, 2006). Scant data exists from within Europe or about the European context on the consumption of health services abroad, while the annual number of medical tourists globally has been estimated at 500,000 (Horowitz and Rosensweig, 2007). Other estimates are much lower, for example around 70,000 (Ehrbeck et al., 2008), and these variations may be due to differences in how the phenomenon is defined.

Medical tourism, as the subject of serious scientific inquiry, has been studied much more in the USA and in the Asian context (Carrera and Lunt, 2010). The primary market, so far, seems to be effectively dominated by US citizens, who are motivated by individual and system-wide economic barriers, and who are seeking medical treatment at a substantially lower cost than that available in their home country (Vitalis and Milton, 2009). In European countries where health systems are publicly funded, forces driving a response to medical tourism might be better understood within a framework of equity and in response to national policy changes once EU membership has been established (Carrera and Lunt, 2010). Social recognition and the exchange of ideas about treatments available elsewhere combine with Europe’s established low-cost travel market, which adds to the complexity of the medical tourism phenomenon.

Both Rosenmöller et al. (2006) and Bertinato (2005) underline the critical lack of valid data on medical tourism in Europe. In fact, the former reports that in several European health systems, foreign patients are simply excluded from the statistics. The circumstances under which cross-border healthcare could be provided and reimbursed are therefore far from clear. However, the level of concern for this lack of evidence-based attention does not stop here. Antibiotic resistance, as an outcome of medical tourism, should be high on the list of priorities in European countries. For example, a new antibiotic-resistant superbug
(multidrug-resistant Enterobacteriaceae, which generates the enzyme NDM-1), has entered UK hospitals and has the potential to create a major global health problem (Kumarasamy et al., 2010).

Cross-border healthcare within Europe is currently limited and does not constitute a significant challenge to national health system planning. Nevertheless, in 2008, the EU Commission adopted a proposal for a directive on the application of patients’ rights in cross-border healthcare, which, once adopted by the European Parliament and the Council, will provide a community framework by reinforcing cooperation between member states and by providing legal certainties over the rights of patients. EU patients are in principle “allowed to seek any health care in another Member State that they would have been provided at home and reimbursed up to the amount that would have been paid had they obtained the treatment at home, but they bear the financial risk of any additional costs arising” (European Commission, 2008). The impact of this directive has yet to be witnessed.

Interconnected global forces that have driven the development of this EU directive (bear in mind that most evidence-based information on medical tourism comes from sources outside Europe) are centralized within the conceptual framework described here: aspects of globalization are forced to interconnect with the rights bestowed upon Europeans to freely choose their own healthcare. By doing so, the choice to engage in medical tourism is mitigated by the ebb and flow of familiarity (social), cost (economic), quality (technological), and bioethical legislation (for example, the political measures surrounding abortion, infertility etc.) (Glinos et al., 2006). However, in order to maintain a leading position at the global level, the European Union must continue to enhance the free movement of goods, people, services and capital within internal markets. Prospects for future health tourism need to remain negotiated as part of internal trade and investment agreements. The stability offered by such agreements can make it possible to include additional countries, so as to enhance the liberalization of trade in health goods and services.

Health workforce migration

Despite such variations between European countries, as illustrated in Figures 2 and 3, and in Table 1, some of the challenges encountered by these health systems are nevertheless relatively similar. For instance, health systems in general require a level of adaptation in order to contend with a changing pattern of disease, caused partly by ongoing and somewhat unpredictable changes in demography and medical achievements. Such changes represent both positive and negative aspects of globalization. Certain challenges affect European health systems in other ways; for instance, as a result of the ageing population in Europe there will soon be an aged health workforce. A demographic change in the health workforce also takes place when the increase in female workers reflects a simultaneous increase in entitled absence from work due to pregnancy and family-related care. Such demographic considerations should become an inherent component in workforce planning. In particular, in the EU context the creation of a single market will have important consequences on the migration of its health workforce: there are both those who recruit foreign workers and those who face increasing emigration (Mossialos et al., 2002).

The question of the health workforce is of great importance for health systems. In Western European countries employment costs account for around 70 per cent of health budgets, while in eastern Europe the percentage is even higher due to underinvestment in capital and labour-intensive healthcare delivery (Dubois et al., 2006). The distribution of physicians in the WHO European Region varies considerably (WHO, 2009) as shown in Figure 5.

Currently, several countries are facing a severe health workforce crisis globally, most of them in Africa and Asia. However, several European countries also face health workforce shortages (see Figure 5 and Table 1, Appendix 1), and attempt to recruit foreign health personnel. Some European countries, most notably transition countries from eastern Europe, lose native-born doctors to wealthier countries in Western Europe. Romania is one such example, with one in ten of its doctors migrating to Western Europe during the last three years alone. From the outset, it should be said that there are limitations regarding the different types of systematic data available on this topic (Dussault et al., 2009). Many European countries cannot satisfactorily monitor the ebb and flow of migrant health workers.
This makes it difficult to fully understand the impact of health workers’ migration and to develop good quality policies; monitoring should therefore be improved (Buchan, 2007).

The international migration of health professionals has increased in recent decades, especially in the OECD countries (OECD/WHO, 2010). Both donor and destination countries are found within Europe. The UK, Ireland, Norway and Sweden are among top destination countries, while Romania and Moldavia are major donor countries (Global Health Europe, 2010). Not all European countries bring in foreign health personnel, while some eastern European countries, for instance, are concerned by the outmigration of health workers (Buchan, 2006). Nevertheless, in countries such as the UK and Ireland, over 30 per cent of doctors are foreign-trained or foreign-born. The proportion of foreign-trained nurses is usually lower than for doctors, but there are exceptions, such as Ireland, where 47 per cent of nurses were foreign-trained (OECD/WHO, 2010), most of them in the UK. In Norway, there is a growing number of foreign nurses from outside Europe, mostly from the Philippines, but the vast majority still come from other Nordic countries (Buchan, 2006). In 2000, almost 40 per cent of migrant doctors and 30 per cent of migrant nurses in OECD countries were from other OECD countries. The leading countries of origin for migrant health professionals in the OECD were the Philippines for nurses and India for doctors, followed by the UK and Germany (OECD/WHO, 2010).

Several factors may attract and encourage a workforce to be more mobile: working conditions are often better and salaries higher (often with the possibility of sending money home), there may be better career and education opportunities, better resourced health systems, and the political and economic environments may be more stable. These are called ‘pull factors’ (OECD/WHO, 2010; Buchan, 2006). Similarly, there are ‘push factors’, aspects in the country of origin that make it tempting to leave in order to work abroad, which, unsurprisingly are often the converse of the ‘pull factors’, including lower salaries, poorer working conditions, limited resources and career opportunities, and political instability (Buchan, 2006).

Overall, from a global health perspective, outmigrating health professionals may have a negative impact on the delivery of healthcare and could create costs in the form of ‘wasted’ education. On the other hand, this could also have a positive impact in the form of remittances or, in cases where the health workers return to the country of origin with newly gained expertise and skills (Buchan, 2007). For the source countries with insufficient numbers of staff in their health systems, it is important to strengthen health workforce retention, especially in rural areas. Some examples of possible policy interventions are listed in Table 2, Appendix 2.
Innovation and IT

Technological innovation has provided and has the potential to provide enormous benefits for health and health systems management in the future, and offers a forum for the momentum constructed in our socio-ecological framework. However, the benefits offered by innovation and IT are not automatic and require a consideration of three issues. The first is cost. The implications of cost on new innovations for health systems applies not only to pharmaceuticals, but to other new technologies and IT as well. The costs of new technologies create substantial financial pressures within health systems at the outset, with benefits expected to arrive at a later time. Particular concerns relate to very expensive new products with limited evidence of improved life-expectancy, or products, such as new vaccines, that are intended for large, predominantly healthy, populations. The high cost of products is also usually accompanied by a high-cost necessity to support the innovation.

The second issue is policy. The necessity to consider assessment of technology as part of innovation policies is critical, as it has now been recognized that a number of health innovations have shown moderately incremental benefits with relatively little clinical value (OECD, 2008). As part of European Union policies, keeping up with the high speed of health innovation and IT requires that policy-based assessments of the clinical value and cost-effectiveness of new technologies are taken early in the consideration to implement. Efforts to enhance the scope for technology assessment in the field of pharmaceuticals are already in place within the EU. Attention to other forms of health innovation should ensue. The third issue to consider is a lack of innovations that are developed with forethought as to their end utility and longevity. Some innovations are developed purely on the basis of ingenuity, and lower labour costs and overheads magnify the purchasing power of these institutions and their Southern counterparts. When these collaborations involve research institutions and their Southern counterparts. When these collaborations involve research institutions in IDCs, the old donor–recipient patterns are likely to give way to more equal partnerships.

Old patterns of technological innovation and trade are also changing. In the current paradigm, high-cost technologies are developed in industrialized countries and are then diffused gradually (if at all) to developing countries. Over the coming decades, this is likely to change. Both the private and the public sector in European countries will be primed to turn to IDCs to help contain healthcare costs for their ageing populations. Partnerships between European and IDC firms will strengthen, as will collaboration between European research institutions and their Southern counterparts. When these collaborations involve research institutions in IDCs, the old donor–recipient patterns are likely to give way to more equal partnerships.

In 2000, C.K. Prahalad made his name as an adviser on corporate strategy: firstly, with the concept of co-creation, which views markets as interactive forums where companies and customers can create value through mutual collaboration (Prahalad and Ramaswamy, 2000); and secondly, in 2004, as one of the original framers of the concept of bottom-of-the-pyramid (BOP) business strategies (Prahalad, 2004). Prahalad pointed out that companies in many developing countries are pursuing innovative business models that are specifically designed to reach the poorest markets and still make a profit. He argued that corporations in industrialized countries need to learn from them in order to survive in a globalizing world. One of his lesser-known works from 2006 presented case studies of BOP strategies in India’s health sector (Prahalad, 2006).
As many research-intensive European firms shift their investment strategies toward reverse innovation, the public health sector may also benefit from innovations that are first tested in some of the poorest developing countries and then introduced into high-income countries. This shift may be felt in many areas of healthcare, perhaps especially and most immediately in the area of ‘e-Health’, which includes health information systems (HIS), and new uses for mobile phones to collect and deliver health information (m-Health). The implications for Europe and the European centres for health innovations are currently difficult to predict. While it is likely that more and more technological innovations will steadily emerge from Brazil, China and India, the potential influence of reverse innovation from other LMICs remains highly unpredictable and closely dependent on the wide gaps in income, infrastructure and sustainability in these countries. Nevertheless, innovations actually encompass the entire process – from idea to implementation – for new products, services, processes, practices, and polices, and also include social aspects. It is in the latter area that some predictable advantages over the current European situation may be offered. Social innovations include new ways of organizing human resources, information and decision-making within health systems (Gardner et al., 2007). Social innovations are also required in health systems to maximize a rational take-up of new drugs and diagnostics, and to find the best ways of delivering services and promoting health behaviours. Reverse innovation systems for health and social care may include putting the results of research and new knowledge into practice. And, because some European health systems are decentralized and lend themselves to promoting local innovation, its spread and take-up, then the impact of this type of innovation may be spread more easily. Here, we need more evidence from health systems research on social innovations in order to increase the effectiveness and equity of health systems. The creation of knowledge networks, learning sites and close collaboration between researchers and practitioners are major enabling factors. Outcomes-oriented management and leadership, patient-centred care processes, and professional practice improvement are just some of the innovation-related projects currently being evaluated within the Swedish healthcare system.

There is a growing consensus that the impact of information communication technology and IT on health systems will be revolutionary, but much less agreement exists as to its likely nature (Oh, 2005). Some see IT as being used as a tool to reinforce existing health systems, while others see IT as having the potential to transform health systems. The role of IT in the doctor–patient relationship is also increasingly being discussed. If health systems are seen as “ways of organising access to expert knowledge” (Bloom et al., 2008), then issues of access to knowledge, the organization of it (as well as how it can be withdrawn) are interesting. Clearly, IT has already led to situations where the patient is sometimes better informed about his or her disease than the doctor – a phenomenon referred to as patient empowerment. This obviously has an impact on the power relationship. Another application is how health systems may use ITC to support providers’ decision-making, for example, in the use of pharmaceuticals (Bastholm Rahmner et al., 2004). European health systems could make better use of ITC as knowledge systems for learning, and they could establish some of the databases, the need for which has been identified in previous sections. These include statistics on patient and provider mobility, as well as systems for quality assurance.

Mobile phones are now widely available in LMICs (Kahn et al., 2010). More than 60 per cent of people in sub-Saharan Africa now have access to a mobile phone (Aker and Mbiti, 2010), and there are nearly 600 million mobile phones in India (UNU-INWEH, 2010). In China, there are a reported 800 million mobiles and 400 million IT users. Broadband access could be available to 50 per cent of the world’s population by 2015, which would dramatically increase not only internet access, but also the ability to collect and deliver health information via mobile phones (ICT, 2010). Interestingly, some of the most innovative work in HIS and m-Health is now being developed for low-income and remote settings in the developing world (Blaya et al., 2010). In innovation economics terms, there may be a number of cases where LMICs are the first adopters of new e-Health solutions that are only later propagated to Europe.
Challenges and opportunities

The world is going through a formidable transition. In Machiavelli’s The Prince it was claimed that: “There is nothing more difficult to carry out nor more doubtful of success nor more dangerous to handle than to initiate a new order of things.” The incredible development of communication technologies and the worldwide transition towards neo-liberal policies under the market economy constitute major changes. These changes represent a paradigmatic shift in the direction of globalization, and their effects on healthcare have never been so at hand. It therefore becomes timely and relevant to examine more closely the possible influences that this paradigmatic shift could have on the European perspective.

Under these conditions, globalization leads partly to the erosion of power within the nation state, in favour of financial markets and multinational companies. The ongoing financial crisis is clearly having a great impact on national health systems. In addition, NGOs and the private sector are showing signs of more social innovations, while the public sector is lagging behind. These factors are having an impact on health systems across Europe – which are national in character – with systems reflecting the cultural and socio-economic situation, as well as other background elements found in each system (McKee et al., 2004).

However, such factors also reflect the common European values of solidarity, equity and human rights with regard to health and healthcare. These are now being reinforced by a strong European health consumer movement. Significant similarities exist between health systems because they face similar opportunities (for example, the development of medical and information technology) but they also face similar problems (for example, increasing costs, limited resources and a high proportion of elderly people, amongst both patients and the health workforce). Action therefore needs to be taken in response to what is partly a shift of human affairs away from the nation state (towards global forces) in order to ensure that the European value of universal coverage is applied equitably when it comes to providing good, quality healthcare.

The global health market

It must be stressed that the benefits of globalization are not expected to contribute to equity but, rather, to disparities, which are likely to increase unless measures are taken to avoid excluding those with few resources. It is indeed worthy of note that China is experiencing increasing overall inequity, but conversely, 400 million of its citizens live on less than US$1 per day. A well-functioning health system is essential to an effective market economy, but as Koivusalo and Mackintosh (2004) argue, making a health system work in a market economy does not simply imply the commercialization of the healthcare sector. Health systems represent the institutional basis of health policies, and the way they are organized has fundamental implications for how policies can be implemented. They are therefore an expression of the values, priorities and expectations in society. Koivusalo and Mackintosh go on to say that healthcare must not be seen as a commodity, but as a social and public responsibility. In most high-income countries, healthcare is one of the least controversial elements of economic redistribution. However, as is evident from Table 1 and Figure 3, the situation varies considerably between European countries. Clearly, where there is little overall spending on public health systems, taxation and insurance systems, but high out-of-pocket spending, systems could be more vulnerable to certain elements of globalization. Health systems address one of the major forms of social risk that people face, and access to healthcare should not be dependant on an ability to pay. It is now well known that the way health systems are financed can lead to poverty. The concept ‘iatrogenic poverty’ has so far mainly been discussed in LMIC contexts, where out-of-pocket spending sometimes represents as much as 70 per cent of overall healthcare financing. The situation in Europe is much better (see Figure 4), although some countries are more at risk than others.

Some health system functions may become underserved in more commercially oriented models. Emergency preparedness and services fall into this category, as does handling epidemic outbreaks. In a market system, patients who cannot pay will obviously be excluded. A more demand-based and consumer-oriented type of system may also result in greater malpractice, while professionalism, trust and ethics may be eroded. Market failures include information asymmetry with poorly informed patients, and providers who are driven by financial incentives to overprescribe and diagnose. With privatization and the commercialization of care, the steering capacity needs of the government – in terms of
regulations – increase substantially. National health system leaders need to carefully consider how multinational companies, which traditionally focus on pharmaceuticals, are now discussing a move into the general provision of health services. Similarly, it can be argued that investment in well-performing public health systems is important for economic policy. Failure in the governance of health systems could lead to levels of expenditure close to that of the USA (17 per cent of GDP compared with 8.5 per cent in the EU).

There is also a risk that the present market-driven paradigm, which is likely to operate by a deterministic mechanism, would ignore the momentum of globalization and its natural, adaptive complexity. This would ultimately impose restrictions on the flexibility of developing systems, and would enforce a profit-driven agenda that may not be appropriate in all settings. Moreover, the health economies of Brazil, China and India will continue to accelerate their demand for healthcare over the coming years as their citizens earn higher incomes. Populations the size of the European Union are now emerging with similar demands for healthcare and have a rapidly increasing ability to afford services that are offered by European health systems (Global Health Europe, 2010).

The good leader and systems-thinker

The nurturing of European values means assessing the performance of health systems in areas other than just efficiency and cost savings. Health ministers in Europe should therefore be clear about what kind of future health system they wish to create, which they should design accordingly. We can never predict the future, but we can explore its possibilities and can assume that local solutions will continue to adapt to global forces. To minimize the influence of agenda-driven schemes, health systems should be thought of as complex and adaptive systems of simplified components – such as the WHO building blocks – where their interconnections, and therefore interrelationships, are most important. Health-related systems thinking (de Savigny and Adams, 2009) means addressing the full range of systems elements and interactions. Reforms to reduce out-of-pocket spending in European health systems creates a need to use information systems for the general public, to plan for the management of reactions from the health workforce (to avoid a negative impact on their performance), to ensure a supply of technologies, and to provide effective leadership. This paradigm mimics ecological adaptation, but it also promotes investment in the appropriate mix of local human and material resources. A combination of value-driven policy, emphasizing social justice, equity and responsiveness, also needs to take the various forces of globalization into consideration. In this international context, strong leaders and leadership are therefore necessary in order to strike a balance between globalization and the privatization of healthcare so as to ensure that the values intrinsically imposed upon national health systems can remain firmly grounded in the public sector.

Leadership has been supported as one of the primary functions of a national health system (see Figures 1 and 4). In contrast to technologies, such as drugs, it has been little studied – despite being critically important for the ability to meet the challenges of health systems designs and performance (Frenk, 2010). Regarding the local adaptations that result from globalization, it is also important that the capacity for foresight is built up: and to do this, health worker migration as well as patient mobility and empowerment must be considered. Labour markets, including policies for health systems, evolve according to the changing dynamics of worker demand and supply (Dussault et al., 2009). The European health workforce may be ageing, but the globalization of technological developments, including computerized decision support, obviously creates enormous opportunities. Policies and sys-
tems will become increasingly global, and individual health workers will have to tap into
global expertise and databases. National efforts should be increased to monitor trends and
patterns of health worker migration. Agreement with other countries should be established
to include the recent code of practice for the international recruitment of health personnel.
As the nature of work changes, increased flexibility is needed, and national health systems
should increase their efforts to develop and implement sustainable health worker policies
in relation to cross-border mobility.

The healthcare workforce is not the only entity influenced by globalized technology. Pa-
tients are also offered increased cross-border access to health services, where knowledge
about treatments available ‘next door’ is closely tied to the development of information
technologies. In this scenario, patients will increasingly be able to take care of themselves
by taking a greater responsibility for their health. Self-diagnosis and treatment at home will
increase. In ten years’ time, nearly one-fifth of Europeans will be over the age of 65, with
the majority having been regular users of cyberspace and IT. This notion supports the idea
that the public searches the internet for health information. One aspect is that IT also raises
people’s expectations when patients are better able to compare health services across bor-
ders (Kerssens et al., 2004), and national policy-makers should always bear this in mind.
In Europe, as well as in the wider international setting, patients are no longer passive reci-
pients of care but are informed and demanding consumers who will demand information
about the performance of institutions and their staff. Moreover, patients will themselves be
increasingly able to monitor the quality of care and contribute to patient safety in the near
future. Such a development will probably revitalize primary healthcare, thereby moving
care closer to households, and there could probably be a move towards better integration
between primary and secondary care. Leadership, both at the national and global level, is
also needed in tackling major global health challenges such as the faceless threat of anti-
biotic resistance (Cars et al., 2008). The establishment by the 2009 Swedish EU Presidency
of the Trans Atlantic Task Force on Antimicrobial Resistance (TATFAR) is a good examp-
le of a contribution to global governance in a major public health area.

Benchmarking performance

Better systems to assess performance must be developed. We know about the wide varia-
tions in performance by different health systems (Brown, 2003), even with similar levels
of health expenditure (Chalkidou et al., 2009). We know less about the explanatory factors
regarding a country’s strengths and weaknesses (Anderson and Hussey, 2001). With the
exception of drugs and other technologies, many health systems continue to lack a robust
evidence base (WHO, 2000). This becomes even more of an issue when we consider some
of the elements of globalization and health systems. Strong institutions are needed to gather
all available information – thanks to the contribution of globalized information technology
– particularly in health ministries with their essential stewardship function. One challenge
is to overcome the problems posed by the various – and often incompatible – software
systems. Nevertheless, we can take forward the positive aspects of globalization, which
result in increased access to information, and to international comparisons, which are more
valuable now than ever to national policy-makers. Increased communication can therefore
be a positive aspect if harnessed in the right way. Good performers will be used in bench-
marking, and this will fit well with the general plea for more evidence-based health sys-
tems development. A number of useful web sites for this purpose are listed in Appendix 3.
Innovation in partnerships

Given the growing innovation capacity of some LMICs, old donor–recipient patterns need to change. Many IDC governments actually provide aid to low-income countries through their own development assistance programmes (Rowlands, 2008; Woods, 2008). The EU is the largest donor of development assistance in the health field. For an external funder, investing in innovation with IDCs must move away from the current, and somewhat paternalistic, paradigms towards joint efforts, on equal terms, with full respect for the goals, local perspective and know-how of LMIC partners. This would represent a paradigm shift for both donors and LMICs (IJsselmuiden et al., 2010). Such a shift has significant implications for current efforts to develop affordable, accessible and acceptable products to address the health needs of low-income countries, as well as for European health systems. This is also part of the shifting polarity in thinking about traditional North–South paradigms, to also include South–North and South–South, and to actually have global collaboration.

Because of cost advantages, IDCs already produce most of the low-cost drugs and vaccines for global procurement (IJsselmuiden et al., 2010). What is less well known is that innovative firms in such countries also have a remarkably strong commitment to product development for the so-called neglected markets. A recent survey of 78 small- and medium-sized biotechnology companies in Brazil, China, India and South Africa has interesting implications for global health (Frew et al., 2009). Collectively, these companies have 500 products, either commercialized or under development, and a surprising 25 per cent of these target neglected diseases, HIV, tuberculosis and malaria. Government aid agencies in EU countries, and the European Commission itself, may wish to consider strengthening partnerships with IDCs to address the health needs of low-income countries. This will require new kinds of partnerships based on more equal terms than those encountered in the past, to probably include co-founding arrangements, as well as building upon and supporting IDCs’ own development assistance programmes.

European health systems for the future

Over the coming decades, the process of globalization will continue to bring dramatic changes throughout Europe. Changes will be seen in all areas: communication, transportation, migration, politics and culture. Patterns of change taking place in these areas will strongly impact health and health systems, which are themselves evolving. The flow of patterns will interconnect in direct and indirect ways, so that an agenda must be embraced for organizing effective research on their dynamic adaptive effects. Reforms and policies created with an appreciation for these effects will support the strengthening of European health systems. In addition, innovation will continue apace with its impact felt most immediately in communications and information processing, energy supplies, transportation and health. The document, The EU Role in Global Health, (European Commission, 2010) emphasizes the need to step up the policy dialogue on health systems, including the importance of universal coverage. European health systems must, therefore, contribute to improved global health. They must be responsive as well as responsible for ensuring social and financial risk protection and improving efficiency. Singular-vision financial issues should not predominate, but funds should be collected, pooled and allocated appropriately, and this should be done in a manner that promotes equity, and protects the population from high out-of-pocket spending. Social innovations are as important as technological innovation, and a recognition of these matters will provide Europe with the opportunity to remain well-positioned in the modern globalized world.

European health systems need to have a rethink when it comes to the training of a sufficient number of medical professionals and health workers and, where necessary, to support longer-term migrants in order to cope with future demand for workers in a sustainable manner. Particular care should be taken so as to limit drawing a much-needed highly educated workforce away from lower-income and middle-income countries without compromising the scope for educational change and cooperation. European states should also ensure their migration policies do not undermine the availability of health professionals in LMICs, particularly in sub-Saharan Africa, while still respecting individual freedom of movement (which includes personal aspirations).
Maximizing health-related decision-making and health systems policy processes within Europe will make space for investing in global concerns. The EU should speed up its progress towards agreed commitments under the European Union Strategy for Action on the Crisis in Human Resources for Health in Low-income Countries. There is an ongoing need for policies concerning the international migration of health workers, to ensure it is ethical, while future policies should consider the rights and obligations of source countries, destination countries and health personnel. They should also avoid undermining health systems on either side of the migration process. The development of policies that are important for strengthening international cooperation remains a valid concern in this globalized framework (WHO, 2000). WHO has drawn up a Global Code of Practice on the International Recruitment of Health Personnel, which was endorsed by this year’s World Health Assembly. European health systems now have the opportunity to follow this code of practice. The future of European health systems is to be clear about the ethical aspects of particular forms of health tourism and commercialization. While there is currently limited guidance at the global level, further oversight and guidance by WHO would need to be supported by European states, including necessary cooperation with global labour policies within the ILO. Where the commercialization of health systems is known to increase costs, European health systems need to focus on ethical and evidence-based aspects of the trade so as to ensure that what is offered is based on sound knowledge and practices in healthcare. It is essential to ensure that cross-subsidization across populations and health risks remains an aspect of European health systems. This notion conforms to the values on which these systems are based.

Innovation policies can provide tremendous benefits, but there is evidence to suggest that not all new innovations provide added clinical value or that they are affordable. European states need to be alert to what is taken forward as part of policies in support of innovation, so as to ensure that these serve health needs, that they provide added value for health or health systems, are affordable, and enable and foster access to knowledge and further innovation. One option is to ensure that the appropriate terms and licences for innovations derived from publicly funded research and development are secured, in order to protect public interests.

European health systems are not only providers of health services, but are also responsible for public health, health protection, health promotion, and for tackling the health and health implications of other policies. It is important that sufficient capacity remains within the public sector. The financial crisis has shown that globalization processes do affect the resource basis of health systems and governments. The challenge of health systems in Europe, therefore, is to maintain the resource basis and expand capacities in order to predict, negotiate, cope with and provide balance to some of the impacts of globalization, including the social determinants of health. This also has implications on how health systems are financed and organized so as to ensure that services are available and equally affordable in areas where their provision may not be economically profitable.

Globalization changes politics and administration by empowering commercial and global actors rather than public and local actors, through trade and investment agreements, as well as shifting the emphasis of national policy towards financial and commercial policies. It is important for health systems to recognize that globalization starts at home, as emphasized by the ILO globalization report (ILO, 2004). This process requires recognition and cooperation between those responsible for health as well as a focus on the appropriate level of governance, which, in the context of globalization, is national, regional or even global. In this context, the focus on health in all policies needs to change to include the health system implications of other policies, and to move health up the political agenda so that priorities can be set transparently and as part of broader political decision-making.

Europe should see its role in global health and appreciate the mechanisms of globalization for the development of its own systems. For health systems and healthcare delivery, investment in research and development by high-income countries, but also the fostering of new types of partnerships with, for example, Brazil, China and India, will continue to bring incremental improvements and the occasional rare breakthrough. Revolutions in the life sciences, advances in information technology, increased knowledge management, and systems-thinking provide opportunities for this. Health and health systems are becoming increasingly linked to the human rights issue.

Finally, addressing globalization and responding to future needs is a process in which different aspects need to be accommodated by adjusting and moving with processes where necessary, but also by setting the limits and engaging with cooperative action when required. Globalization is only partially taking place as result of natural law, and its outcome for health systems is being shaped by decisive national and global policies. Learning from a global and developmental context, and better understanding policy-level and regulatory aspects are, therefore, all necessary prerequisites to understanding globalized processes, and for responding to them at an adequate level.
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Appendix 1 - Health systems indicators in Europe

<table>
<thead>
<tr>
<th>Population (millions)</th>
<th>Health expenditure</th>
<th>Main sources of financing</th>
<th>Doctors (per 1,000 population)</th>
<th>Nurses (per 1,000 population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>3.2</td>
<td>7.0</td>
<td>Taxation, social health insurance</td>
<td>1.2</td>
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<td>Andorra</td>
<td>0.1</td>
<td>7.6</td>
<td>Taxation, out-of-pocket</td>
<td>3.7</td>
</tr>
<tr>
<td>Austria</td>
<td>8.4</td>
<td>9.6</td>
<td>Social health insurance</td>
<td>3.6</td>
</tr>
<tr>
<td>Belarus</td>
<td>9.6</td>
<td>6.2</td>
<td>Taxation</td>
<td>4.8</td>
</tr>
<tr>
<td>Belgium</td>
<td>10.7</td>
<td>9.3</td>
<td>Social health insurance, taxation</td>
<td>4.2</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>3.8</td>
<td>9.8</td>
<td>Taxation, out-of-pocket</td>
<td>1.4</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>7.5</td>
<td>7.7</td>
<td>Out-of-pocket, social health insurance, taxation</td>
<td>3.7</td>
</tr>
<tr>
<td>Croatia</td>
<td>4.4</td>
<td>8.7</td>
<td>Social health insurance</td>
<td>2.5</td>
</tr>
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<td>10.4</td>
<td>8.6</td>
<td>Social health insurance</td>
<td>3.6</td>
</tr>
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<td>5.5</td>
<td>8.4</td>
<td>Taxation</td>
<td>3.6</td>
</tr>
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<td>5.5</td>
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<td>Taxation</td>
<td>3.3</td>
</tr>
<tr>
<td>France</td>
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<td>Health insurance contributions/taxation</td>
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<td>Taxation</td>
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<td>Republic of Moldova</td>
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<td>Taxation</td>
<td>3.1</td>
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<tr>
<td>Romania</td>
<td>21.2</td>
<td>3.9 (public)</td>
<td>Taxation, social health insurance, out-of-pocket</td>
<td>1.9</td>
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<td>Russian Federation</td>
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<td>2.9–7.0</td>
<td>Taxation, social health insurance, out-of-pocket</td>
<td>4.3</td>
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<tr>
<td>Serbia</td>
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<td>9.9</td>
<td>Taxation, out-of-pocket</td>
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</tr>
<tr>
<td>Slovakia</td>
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<td>5.7</td>
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<td>Social health insurance</td>
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<tr>
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<td>Sweden</td>
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<tr>
<td>Switzerland</td>
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<td>10.1</td>
<td>Social health insurance, taxation, out-of-pocket</td>
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<td>Ukraine</td>
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<td>United Kingdom</td>
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<td>Taxation</td>
<td>2.1</td>
</tr>
</tbody>
</table>

Based on data from the European Observatory on Health Systems and Policies, the WHO Global Health Observatory and the United Nations Population Division’s World Population Prospects (The 2008 Revision; Volume I: Comprehensive Tables) [WHO, 2009].
### Appendix 2
Policy interventions and health worker migration

<table>
<thead>
<tr>
<th>Level</th>
<th>Characteristics/examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organizational</strong></td>
<td></td>
</tr>
<tr>
<td>Twinning</td>
<td>Hospitals in source and destination countries develop links, staff exchanges, support and flow of resources to source country.</td>
</tr>
<tr>
<td>Staff exchange</td>
<td>Temporary movement of staff to the other organization, based on personal, career and organizational development opportunities.</td>
</tr>
<tr>
<td>Educational support</td>
<td>Educators, educational resources from the destination to the source organization.</td>
</tr>
<tr>
<td>Bilateral agreement</td>
<td>Employers in the destination country develop agreement with employers or educators in the source country to contribute to or underwrite costs of training additional staff, or to recruit staff for a fixed period, linked to training prior to returning to the source country.</td>
</tr>
<tr>
<td><strong>National</strong></td>
<td></td>
</tr>
<tr>
<td>Government-to-government agreement</td>
<td>The destination country develops an agreement with the source country to underwrite costs of training additional staff, and/or to recruit staff for fixed period, linked to training and development prior to staff returning to source country, or to recruit surplus staff in the source country.</td>
</tr>
<tr>
<td>Ethical recruitment code</td>
<td>The destination country introduces a code restricting employers’ choice of target countries and employees’ length of stay. Coverage, content and compliance issues all need to be clear and explicit.</td>
</tr>
<tr>
<td>Compensation</td>
<td>The destination country pays cash or other compensation to the source country, perhaps related to the length of stay, cost of training or cost of employment, possibly brokered via international agencies. In any case, it rarely occurs.</td>
</tr>
<tr>
<td>Managed migration (can also be regional)</td>
<td>A country (or region) with outflow of staff initiates a programme to stem unplanned emigration, by attempting to reduce the impact of push factors and supporting other to planned migration.</td>
</tr>
<tr>
<td>Train for export</td>
<td>The government or private sector makes an explicit decision to develop training infrastructure to train health professionals for the export market, to generate remittances, or up-front fees.</td>
</tr>
<tr>
<td><strong>International</strong></td>
<td></td>
</tr>
<tr>
<td>International code</td>
<td>As above, but covering a range of countries; its relevance will depend on content, coverage and compliance. The Commonwealth Code is an example.</td>
</tr>
<tr>
<td>Multilateral agreements</td>
<td>Similar to bilateral (above) but covering a number of countries (or groupings of countries, such as the EU). Possible brokering/monitoring role for international agency.</td>
</tr>
</tbody>
</table>

### Appendix 3
Useful web sites

- Alliance for Health Policy and Systems Research
  www.who.int/alliance-hpsr/en
- CADTH: Rx for Change Database
  www.cadth.ca/index.php/en/compus/optimal-ther-resources/interventions
- Eldis
  www.eldis.org
- Evidence-Informed Policy Network (EVIPNet)
  www.who.int/rpc/evipnet/en
- EVIPNet Portal
  www.evipnet.org
- health-evidence.ca
  www.health-evidence.ca
- Health Evidence Network (HEN)
  www.euro.who.int/hen
- HealthPolicyMonitor – in association with The European Observatory on Health Systems and Policies
  www.hpm.org
- Health Systems Evidence
  www.healthsystemsevidence.org
- Human Resources for Health (HRH) Global Resource Center
  www.hrhresourcecenter.org
- The Cochrane Library
  www.thecochranelibrary.com