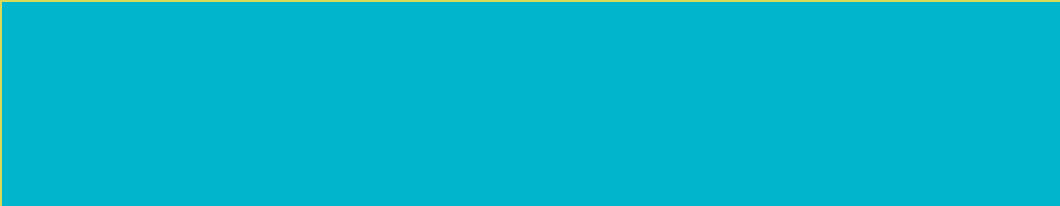




# The Future of Healthcare in Europe



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## **Future of Healthcare in Europe**

### **Professor Sir John Tooke**

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Healthcare systems throughout the world are endeavouring to rise to the challenges that result from an ageing population, the growth in chronic diseases, burgeoning technical possibilities and public expectation. To cope with such elements, an increasing proportion of GDP is spent on health in OECD countries, with Europe being no exception. The downturn in the world economy has increased concern about the sustainability of such a state of affairs.

The UK is contemplating the most radical reform of the NHS since the service was developed over sixty years ago in an attempt to optimise quality of care whilst seeking huge efficiency savings. A greater focus on prevention and public health, patient empowerment and out-of-hospital care is integral to the proposals. Other European nations have proposed or are contemplating their own solutions to the challenge of meeting health care demands within constrained budgets, including for example the Netherlands and Switzerland.

Despite our differing histories and cultural diversity, European countries are characterised by social solidarity on issues such as health. Furthermore, amongst EU member states, healthcare professional and patient mobility can occur.

It thus seemed timely and highly appropriate to create a forum to examine the nature of the healthcare challenges we face, and to draw on European experience as well as policy makers and academic experts in the search for potential solutions. The future of healthcare in Europe and ultimately the health and wellbeing of European citizens relies upon the right answers being found.

# Future of Healthcare in Europe

## Meeting future challenges: key issues in context

### Policy briefing

#### Summary

- An ageing population, health inequalities and the social determinants of health present significant challenges to healthcare systems that go beyond medical problems. Ensuring a multi-level and holistic response by governments will be important in tackling these challenges.
  - Consideration of quality in healthcare requires examination of the different dimensions of quality, the impact of rationing devices, professional organisation and new models of healthcare delivery.
  - Equity of access remains a central tenet of European healthcare systems but raises complex questions of equity, comprehensiveness, and financing, as well as placing the principle of social solidarity under increasing pressure.
  - Healthcare costs have steadily increased in recent years, although this is not necessarily driven by increased need. Cost-effectiveness, value for money considerations, pharmaceutical pricing, new technologies and diversity of provision are all important elements in exploring how to reduce health costs.
  - While states remain the main actors in healthcare policy in Europe, EU policies and law can influence healthcare delivery, particularly when considered in terms of the inter-relation between health and other sectors. While internal market rules ensuring the free movement of people and services can challenge domestic health sectors, there are also tangible benefits and opportunities of collaborating at EU level, not least the potential for coordinated policy.
- Four key conclusions emerge:**
- **Social values** become increasingly important as pressures on healthcare systems intensify.
  - **Political will** – to reflect social values while delivering effective healthcare – is essential.
  - Any renegotiation of the health social contract needs to be consistent with the demands of **political accountability** in a democratic society.
  - There is unlikely to be a single solution to responding to challenges in delivering healthcare costs; an **integrated approach** that takes account of the broader context is essential.

#### Introduction

European governments face a growing number of major health challenges, which are putting unprecedented pressures on public health systems. As main actors responsible for the delivery and financing of healthcare, generally based on the principle of social solidarity, they need to identify policy solutions in this and relevant non-health sectors to best address these challenges. Despite its limited competences with regard to health, the European Union also has an impact, particularly by encouraging cooperation between member states, funding health programmes and reinforcing internal market rules.

This policy briefing draws together themes that emerged from the 2011 Future of Healthcare in Europe conference with the issues explored in the accompanying thought-pieces in order to discuss four key ideas.

1. Health is more than a medical problem
2. Maintaining high-quality healthcare
3. Maintaining access to healthcare
4. Managing the costs of healthcare

#### 1. Healthcare is more than a medical problem

**Ageing population:** The population aged 65 and over in the WHO European Region is projected to rise to 224 million by 2050. While individual countries are still at different stages in this development, this figure represents a doubling in the ratio of elderly people to those of current working ages. Sustaining this ageing population requires an increasing focus on prolonging and achieving equity in good health and wellbeing throughout the life course. But elderly people also increasingly require a package of long-term care that is partly delivered by healthcare and partly by social services, presenting a particular challenge for health systems.

##### Demographic change

In the WHO European Region, the population aged 65 and over is projected to rise from 129 million in 2010 to 224 million by 2050; with the number of people 85 years and older expected to rise from 14 million to 40 million. Since the number of people of working age is in decline, this means a significant increase in the old-age dependency ratio.

##### Health inequalities in Europe:

There are major health inequalities within and between countries in the region, which are persistently large and, in some cases, growing. Life expectancy varies by as much as 16 years between some countries, with differences in healthy life years reaching almost 20 years. Inequality in mortality is also correlated with the length of education of individuals; this is greatest in central and eastern European countries and least in Italy, Spain and Sweden. The global economic downturn

is likely to worsen this inequity and increase pressures on healthcare systems across Europe. Action to tackle health inequalities is vital, not least because they have significant social and economic costs to both individuals and wider society. There is a strong correlation between the level of social welfare spending in selected EU countries and health outcomes (as measured by standardised mortality rates).

#### **Social Determinants of Health**

Inequalities in early years, levels of education, employment status, welfare and health systems, level of income, the places where men, women and children live, and the norms and values of society – including attitudes concerning gender and ethnicity – all contribute to inequities in health. They are known as the social determinants of health.

#### **The social determinants of health:**

Within countries, the levels of both health and life expectancy relate to and are graded by social and economic position. Health outcomes have a clear gradient across the population according to such factors as income, education, social position and employment. Ill health is conditioned by a toxic combination of poor social policies and programmes, unfair economic arrangements and the unintended consequences of other policies. The causes of many chronic lifestyle diseases (such as smoking, diet, alcohol consumption, physical activity) also reside in the social environment. Reducing health inequities thus requires action to reduce inequities in the social determinants of health.

**A multi-level approach:** Local-level action, with its proximity to people's lives and experiences, is key to tackle health inequity and the social determinants of health. Yet such action is also frequently constrained by national and global economic influences, power relationships and resource distribution, which perpetuate health inequity in society. Therefore, a concerted, multi-level approach is required to develop new policies and to produce sufficient coherence, scale and intensity of actions capable of transforming the social gradient in health. European governments can play an important role in introducing policies and regulation, within their particular social and democratic frameworks, to improve health and promote healthy behaviour. The EU also adopts measures to promote and improve health, specifically by funding cooperative health activities among member states and research programmes.

**A holistic approach:** Good health underpins economic and social welfare; a comprehensive and cross-sectoral policy approach to health will therefore deliver multiple benefits, particularly where common action can be taken across Europe. It is vital that policy-makers are motivated to tackle problems in a coordinated way that recognises the importance of political will in solving complex health challenges. For example action on the social determinants of health can also contribute to other social benefits such as well-being, improved education, lower crime rates, balanced and sustainable development and improved social cohesion and integration. Investment for health equity can directly contribute to attaining other sectoral and government goals, challenging the notion that health drains public resources.

## **2. Maintaining the quality of healthcare**

**Dimensions of quality:** Maintaining high-quality healthcare is dependent on a range of dimensions, including access to care; clinical effectiveness of individual patient treatment; ensuring appropriate care; and relevance to the need of a whole community. Achieving quality thus often involves trade-offs: for example, the concentration of healthcare services can provide effective savings and specialisation but risks compromise in access both geographically and in terms of time. There is also a distinction between high-quality care and high-quality treatment (which are not necessarily synonymous). In particular, scientific and technological advancement must be balanced with value judgements in extending life.

#### **Healthcare models**

There are two main types of healthcare systems in Europe. The tax-funded model (eg UK, Scandinavia) is a single-payer, predominantly public, system with salary or capitation reimbursements, where patients have a choice of providers and specialist access is regulated through General Practitioners. The social insurance model (eg Germany, Netherlands, France) has both multiple payers and owners of provider assets with fees being levied for services, where patients have a choice of insurers and direct access to specialists.

**Rationing devices:** A high-quality healthcare system must ensure that everyone within it has access to appropriate care and avoid a two-tier system in which some individuals can only access the minimum level of care. There are system-wide features, such as waiting times or price mechanisms, that act as rationing devices which impact

upon the quality of care. While some rationing may be necessary to maintain quality, given financial constraints, it is important that rationing does not become an impediment to the delivery of high-quality healthcare, by unduly restricting access (e.g. if waiting times are too long) or available treatment.

**Professional organisation:** Professional accreditation standards, professional review and performance measures are all factors in maintaining high-quality care. The extent to which clinicians are obliged to follow organisational rules or nationally set clinical or budgetary guidelines will also affect their practice and, possibly, patient outcomes. Challenges also emerge where policymakers seek to encourage the substitution of the high-cost labour of doctors by the lower-cost labour of nurses and paramedics (although lower cost does not necessarily equal lower quality). Giving patients direct access to specialist care might also improve quality of care; however, the mediation of a general practitioner can bridge not only specialty and clinical, but also medical and social boundaries. EU directives on the mobility and mutual recognition of professional qualifications have important implications for national systems.

#### **New models in healthcare delivery:**

As delivery moves from clinical settings to alternatives such as telemedicine or over-the-counter diagnostic kits, there are options for increasing the effectiveness of healthcare. While these improve the access dimension of high-quality care, their clinical effectiveness remains to be seen. Similarly, the increasing focus on personalised medicine means that there is an important role for patient information in improving the quality of care, both through the use of individual data in health research and in terms of dialogue with patients to better understand what they require from high-quality healthcare. These come with their own challenges,

such as balancing the individual value of informational privacy with the collective value of the potential benefits of research.

### 3. Maintaining access to healthcare

**Social solidarity:** European healthcare systems rest on the principle of social solidarity in healthcare - ie sharing the financial risks associated with ill health. Maintaining access to healthcare that is also high-quality and sufficiently comprehensive is thus their core objective. However, this principle is under increasing strain from demographic changes, rising chronic diseases, increasing social inequalities, and economic constraints. Governments must therefore make fundamental value choices about: the appropriate level of healthcare that society should fund; where the line of collective responsibility rests; and what the reasonable limits of social solidarity might be, including the appropriate balance between social values of autonomy and solidarity. These are further challenged by the increasing demands of cross-border trade and movement, particularly across the EU's internal market.

#### Health Expectancies and Healthy Life Years

Health Expectancies extend the concept of life expectancy to morbidity and disability in order to assess the quality of years lived – that is the health that individuals experience during their lifetimes, measured by how many years were spent in good health and how many were not. Healthy Life Years is a composite indicator of health that takes into account both mortality and ill-health, providing more information on burden of diseases in the population than life expectancy alone. Healthy Life Years at Birth is an EU Structural Indicator.

#### Equity of access and treatment:

Equitable access is key to providing high-quality and comprehensive healthcare, with limitations to access proving to have a significant impact on health outcomes. However, a tension persists between providing access to and determining the effectiveness of treatment, and in determining the level of benefit at which a treatment is considered effective. Judgements of this kind are likely to be made within a set of complex of social and cultural values and scientific, clinical, and organisational factors. Furthermore, policies need to address whether allowing the private purchase of clinically excellent but not publicly funded care undermines equitable treatment, as not all patients are able to pay for additional care in this way.

**Comprehensiveness:** Limiting the comprehensiveness of care is a common way to deal with cost pressures, restricting available care by type of intervention, type of patient or level of costs. These are often dependent on questions of social and cultural value, which vary between countries. Most healthcare systems trade off comprehensiveness of care against quality or access to some degree: the challenge for policymakers is establishing the appropriate balance between them.

**Financing access:** It is likely that all health systems will have to continue or increase co-payments by patients to secure equitable, high-quality and comprehensive care in the context of increasing pressures. With individual income levels a substantial factor in access, one important consideration is the relation of costs to access. Ensuring the absence of financial barriers does not necessarily mean that all medical services must be free at the point of use, but rather that charges must not debar patients from getting the care they need. However, implementing such a system, which takes into account difference of wealth among different socio-economic groups and recognises that equal costs do not necessarily lead to equal access, is highly complex.

### 4. Managing the costs of healthcare

**Increasing costs:** The proportion of income spent on health in virtually all developed countries has progressively increased. For example in the UK, 4.1% of GDP was spent on the NHS in 1950/51; in 2008, this figure was 8%. As spending on healthcare systems has increased, there has been a parallel increase in concerns about value for money in healthcare, leading to new considerations of cost effectiveness and definitions of value, which are reflected across Europe.

**The relation of healthcare need to spending:** There is a clear relationship between GDP and spend on health care between countries. The largest rises in healthcare spending are in those countries that are the most wealthy, suggesting that healthcare growth is driven by the costs of newer drugs and medical technologies available in richer countries and the demand for the highest levels of treatment

in these countries. It is not driven by an increased perception of need as GDP increases, since health needs are greatest among poorer individuals and countries.

#### Cost-effectiveness and value for money:

Value-for-money concerns are prevalent throughout healthcare systems. There is an increasing emphasis on determining the level of benefit at which interventions are effective enough to justify funding, as attention is increasingly focused on how to gain the most possible value from the healthcare purchasing budget. Yet cost-effective healthcare must also take account of the impact on the broader healthcare system and the potential consequences of funding an expensive treatment for one person that may mean the loss of services for a large number of other people. This determination, however, requires both clinical and social value judgments, provoking questions as to the extent to which social values should inform cost choices and judgements of cost effectiveness.

#### Health inequality in the European Region

There is significant inequality in health across the European Region, notably in life expectancy, which differs between countries by 20 years for men and 12 years for women. There is also considerable variation in inequality in mortality based on the length of education of individuals. In terms of healthy life years, the variation between countries is 19.4 years for males (from 51.5 years in Latvia, to 70.9 years in Iceland) and 19.6 years for females (from 52.3 years in Slovakia, to 71.9 years in Malta).

#### Healthcare expenditure

Healthcare expenditure per capita varies across Europe. In 2006, it was highest in Luxembourg and EFTA countries – in excess of €4,000 per person per year – and below €1,000 in the most recent EU members. In every country, the largest proportion (30–45%) was spent on hospital provision, while public health expenditure varied between 0–3%. As a proportion of GDP, health expenditure has exceeded economic growth in almost all OECD countries in the past 15 years. The proportion in the UK – 8.0% of GDP on the National Health Service in 2008/9, 0.7% on private medicine – has doubled since 1950/1951.



### **Value-based pricing of pharmaceuticals:**

The assessment of medicine is particularly important to address value-for-money concerns. One response under discussion is to introduce value-based pricing – where the price of a drug would reflect its therapeutic value. The UK for instance is proposing to do so by 2014. While this in itself may help to cut costs by making some drugs cheaper, there are concerns that it will not achieve its broader ambitions of encouraging General Practitioners to prescribe generic rather than branded drugs. Nor will it encourage pharmaceutical companies to develop novel treatments rather than variations on existing drugs in order to incentivise research that is likely to have the greatest long-term benefit. There also remain major challenges in establishing the health value of a drug and measuring health value to translate into prices.

### **Health Technology Assessment**

Health Technology Assessments analyse the effectiveness, costs and broader impact of healthcare treatments for those who plan, provide or receive care, taking into account medical, social, economic and ethical issues. Its most important sub-branch is Pharmacoeconomic Assessment, the assessment of medicines.

**Technology:** Innovative health technologies can provide a real solution to growing healthcare costs by delivering greater cost-efficiency and economic productivity. Innovative use of simple technologies which are used outside of Europe may offer one way to increase cost-efficiency. e-Health also offers opportunities for personalised, tailored healthcare and the scalability of large public health interventions which could increase cost-efficiency. The EU's new legal basis for e-Health and the assessment

of safe and effective health technologies certainly allows for further coordination among European governments in this field. However, technological advances can also increase cost pressures and it is important to resist the driving up of costs through ever-more complicated and expensive technological treatments.

**Diversity of provision:** One response to increasing costs is to move beyond public sector provision of healthcare. Europe has seen new Private Financing Initiatives and expanding diversity of private providers of healthcare working within the publicly funded system. These often report initial success in terms of reducing costs for specific treatments, although questions remain about whether this success would be replicated across all treatment areas, and the long-term role of private providers in a public healthcare system. The recent organisational changes proposed for the National Health Service in the UK will significantly increase diversity of healthcare provision and blur the line between public and private providers, with the intention of delivering choice and efficiency but with as yet unknown consequences. EU directives on free trade and movement can further challenge domestic healthcare systems, both as providers and employers.

## **Future of health care in Europe – a social determinants perspective**

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## Future of health care in Europe – a social determinants perspective

### Abstract

There are likely to be significant demographic and economic pressures on health care systems in Europe over the coming years. The elderly population is set to increase, both in numbers and in proportion to the working age population. This represents a doubling in the ratio of elderly people to those of current working ages. This will create substantial new costs – of health and social care and pension payments. At the same time, improved availability of treatments, particularly those that extend the lives of terminally ill patients, are pushing up health care costs per patient.

To counterbalance these pressures there is a need for action on the social determinants of health so as to improve health for all, but particularly among the most vulnerable. The healthcare system cannot deliver these improvements alone. Action is required across the whole of society. The cost of doing nothing is unsustainable.

Work is currently being coordinated by UCL to document the scale of the problem across Europe and propose context-specific policies and interventions. Commissioned by the European Office of the WHO, the European Review on the Social Determinants of Health is conducted by a consortium of experts and institutions, chaired by Professor Sir Michael Marmot. The purpose of the review will be to identify the relevance of the findings of the WHO Commission on the Social Determinants of Health (CSDH), the Strategic Review of Health Inequalities in England post 2010 (Marmot Review), and other new evidence to the European context and specificity and translate these into policy proposals. It will feed into the development of a renewed European Regional Health Policy and contribute to specific aspects of the policy especially where it relates to the social determinants of health.

### Introduction

There are major health inequalities within and between countries in the WHO European Region and the evidence shows that these inequalities should be mostly avoidable by reasonable means. Recognising that action to reduce inequities must be a priority for the WHO European Region – which comprises 53 countries from the Atlantic to the Pacific oceans and thus goes beyond the 27 member states of the European Union –, the WHO Regional Director for Europe commissioned UCL to lead a review of social determinants of health and the health divide in the European Region.

Alongside these inequities, major changes are taking place in the age structure of the Region. These will affect the capacity of health systems to deliver, as well as placing other pressures on societies across Europe – such as pensions and other forms of social welfare. If, as is likely, this leads to rationing of resources, then the impact on social, economic and health inequalities is likely to be substantial. The purpose of this paper is to highlight the links between health inequity and the growing pressures on health care systems in Europe and to describe the work that is being done at UCL to produce recommendations to WHO on what actions are most likely to lead to reductions in health inequities across the European Region.

Within the WHO European Region, average life expectancy differs between countries by 20 years for men and 12 years for women. Within countries, the levels of both health and life expectancy relate to and are graded by social and economic position. The lower a person's social position, the worse is his or her health. Everyone except the people in the very highest social and economic positions adversely experiences some degree of inequality in health.<sup>(1)</sup>

The final report of the Commission, Closing the gap in a generation,<sup>(2)</sup> concluded that achieving health equity requires action on the conditions in which people are born, grow, live, work and age and the structural drivers of these conditions at the global, regional, national and local levels. Ill health is not simply bad luck or the result of lack of health care but, as the Commission concluded, results from a toxic combination of poor social policies and programmes, unfair economic arrangements and bad politics and from the unintended and unanticipated consequences of other policies. Inequalities in the quality of early years, levels of education, employment status, welfare and health systems, level of income, the places where men, women and children live, the norms and values of society – including attitudes concerning gender and ethnicity – all contribute to inequities in health. They are known as the social determinants of health.

Reducing health inequities requires action to reduce inequities in the social determinants of health. This is a priority, both because health inequities have significant social and economic costs to individuals and the wider society and because the social determinants that lead to these health inequities have their own costs, in terms of societal and community well-being, levels of social cohesion and economic development.

## Demographic pressures

Table 1 summarizes the current demographic profile of the Region and the projected profile in 2020 and in 2050. The overall size of the population is projected to increase slightly by 2020 – from 894 million to 910 million – but then to return to current levels by 2050. However, the number of people of working age will steadily decline and the number of people of older ages will increase, leading to an increase in the old-age dependency ratio, with a growing older generations relying for support, in terms of financial and time resources, on a shrinking proportion of people of working age (3). In particular, the number of people 85 years and older is set to rise from 14 million to 19 million by 2020 and to 40 million by 2050.

**Table 1** Estimated population, percentage age distribution and dependency ratios for the WHO European Region<sup>a</sup>, 2010, 2020 and 2050

Age (years)	2010 population (thousands)	%	2020 population (thousands)	%	2050 population (thousands)	%
All ages	893 700	100	910 900	100	895 651	100
0–14	155 719	17	157 682	17	140 665	16
15–64	608 960	68	600 909	66	531 218	59
65–84	115 349	13	133 370	15	183 600	20
85+	13 672	2	18 939	2	40 168	4
Dependency ratios per 100 people 15–64 years old						
Children: 0–14 years	26		26		26	
Older people: 65 years and over	21		25		42	

<sup>a</sup> Excluding Andorra, Monaco and San Marino.

Source: World population prospects: the 2008 revision, population database (4).

The countries of the WHO European Region are, however, at very different stages in the development of ageing societies. Table 2 summarizes the current demographic profile of 50 countries in the Region. Several countries have a very young age profile, with a high proportion of children and a low proportion of older people and some others, conversely, have a more elderly age profile. However, in many countries the demographic situation is more complex than either of these scenarios. In 11 countries the sex ratio (females for every 100 males) exceeded 110. These are all in the Commonwealth of Independent States (comprising former Soviet Republics) and Central Europe, which indicates the cumulative effect of high male mortality in these countries (5).

**Table 2** Estimated population, sex ratio and dependency ratios for 50 countries, WHO European Region, 2010

	Population (millions)	Sex ratio (females per 100 males)	Dependency ratios per 100 people 15–64 years old	
			0–14 years	65 years and older
Albania	3.2	103	34	14
Armenia	3.1	115	29	16
Austria	8.4	105	22	26
Azerbaijan	8.9	104	34	9
Belarus	9.6	115	20	19
Belgium	10.7	104	25	26
Bosnia and Herzegovina	3.8	108	21	20
Bulgaria	7.5	107	20	26
Croatia	4.4	108	22	26
Cyprus	0.9	105	25	19
Czech Republic	10.4	104	20	22
Denmark	5.5	102	28	26
Estonia	1.3	117	23	25
Finland	5.3	104	25	26
France	62.6	106	28	26
Georgia	4.2	113	24	21
Germany	82.1	104	20	31
Greece	11.2	102	21	27
Hungary	10.0	111	21	24
Iceland	0.3	94	30	17
Ireland	4.6	100	31	17
Israel	7.3	102	44	16
Italy	60.1	105	22	31
Kazakhstan	15.8	110	34	10
Kyrgyzstan	5.6	103	44	8
Latvia	2.2	117	20	25
Lithuania	3.3	113	21	24
Luxembourg	0.5	101	26	21
Malta	0.4	101	22	21
Montenegro	0.6	103	28	19
Netherlands	16.7	102	26	23
Norway	4.9	101	28	23
Poland	38.0	107	21	19
Portugal	10.7	106	23	27
Republic of Moldova	3.6	111	23	15
Romania	21.2	106	22	21
Russian Federation	140.4	117	21	18
Serbia	9.9	102	26	21
Slovakia	5.4	106	21	17
Slovenia	2.0	105	20	23
Spain	45.3	103	22	25
Sweden	9.3	101	25	28
Switzerland	7.6	105	22	26
Tajikistan	7.1	103	61	6
TFYR Macedonia	2.0	100	25	17
Turkey	75.7	99	39	9
Turkmenistan	5.2	103	43	6
Ukraine	45.4	117	20	22
United Kingdom	61.9	104	26	25
Uzbekistan	27.8	101	43	7

Source: World population prospects: the 2008 revision, population database (4).  
The population numbers are the projected population for 2010 from the source



## Health care costs in Europe

Table 3 shows the level and distribution of expenditure on health care in countries providing data on this topic to Eurostat. While expenditure per head of population was highest in Luxembourg and countries outside the EU belonging to EFTA – in excess of 4,000 Euros per person per year, it was below 1,000 Euros in most countries that joined the EU in 2004 or later. In every country the largest proportion of this budget went on hospital provision – between 30% and 45%– while public health expenditure varied between 0% and 3%.

**Table 3** Expenditure on selected health care functions by providers of health care, per inhabitant, 2006

Country	All providers of health care Euros per head of population		Distribution of health care expenditure by provider*								
			A	B	C	D	E	F	G	H	I
		%	%	%	%	%	%	%	%	%	%
Luxembourg	5,509	100	30	25	9	21	2	3	0	10	0
Norway	4,980	100									
Switzerland	4,483	100	35	32	9	17	6		0		
Iceland	4,002	100	41	27	16	12	2		2	1	
Denmark	3,864	100									
Netherlands	3,213	100									
Austria	3,189	100									
France	3,146	100	37	27	21	6	7	1	0		
Sweden	3,130	100	45	20	17		2	9	1	0	7
Belgium	3,012	100									
Germany	2,977	100									
Finland	2,638	100	37	30	17	9	1	3	1		1
Spain	1,864	100	40	28	22	5	4	0	1	0	
Portugal	1,458	100									
Slovenia	1,274	100	41	25	23	5	5	1	1	0	0
Cyprus	1,192	100	39	31	18	2	2	0	0	1	6
Czech Republic	771	100	47	23	21	1	4	1	0		4
Slovakia	750	100	27	24	37	0	4	6	2	0	0
Hungary	722	100									
Estonia	500	100	44	21	27	2	3	0	2	0	1
Latvia	475	100	43	26	22	3	4	0	1	0	0
Poland	442	100									
Lithuania	440	100	40	20	33	1	3	2	1	0	0
Bulgaria	232	100									
Romania	231	100	39	12	28	1	7	10	3	0	0

\* Providers of health care

A Hospitals

B Providers of ambulatory health care

C Retail sale and other providers of medical goods

D Nursing and residential care facilities

E General health administration and insurance

F Other industries (rest of the economy)

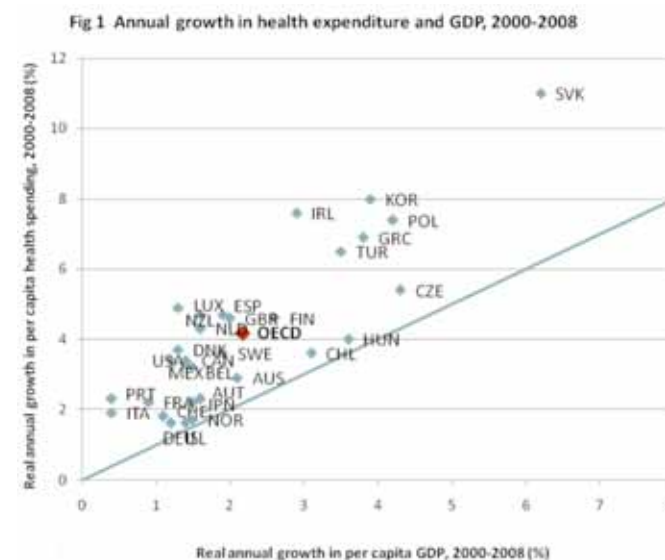
G Provision and administration of public health programmes

H Rest of the world

I Not elsewhere classified

Source: European Union Statistics on Income and Living Conditions(6)

Turning attention to growth in expenditure, it can be seen from Fig. 1 that real annual growth in health spending per head of population outstrips the rise in GDP per person in all countries shown. – that is to say, the scatter points in the Figure are all above the line. However, it is also evident that the largest rises are in those countries that are the most well off. At a national level, this suggests that health care growth is driven by the costs of newer drugs and medical technologies available in richer countries and the commensurate demand for the highest levels of treatment in these countries. It is not driven by an increased perception of need as GDP increases since, as we will see below, health needs are greatest among poorer individuals and countries.



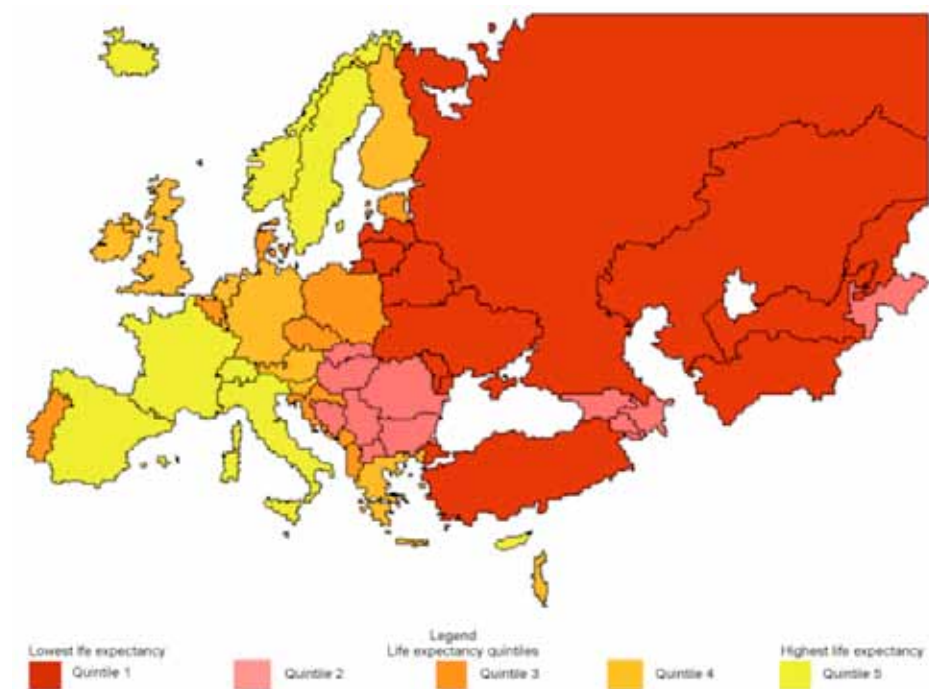
Notes: 2000-2006: Luxembourg and Portugal. 2000-2007: Australia, Denmark, Greece, Japan and Turkey. 2000-2009: Iceland.

Source: OECD Health Data 2010. (7)

## The scale of health inequalities

Although overall population health has improved in most countries, there is significant inequality in health across the European Region, notably differences in life expectancy of about 16 years between countries (Map 1), with even greater differences when account is taken of the inequalities within countries.

**Map 1** Life expectancy, in years, for countries in the WHO European region

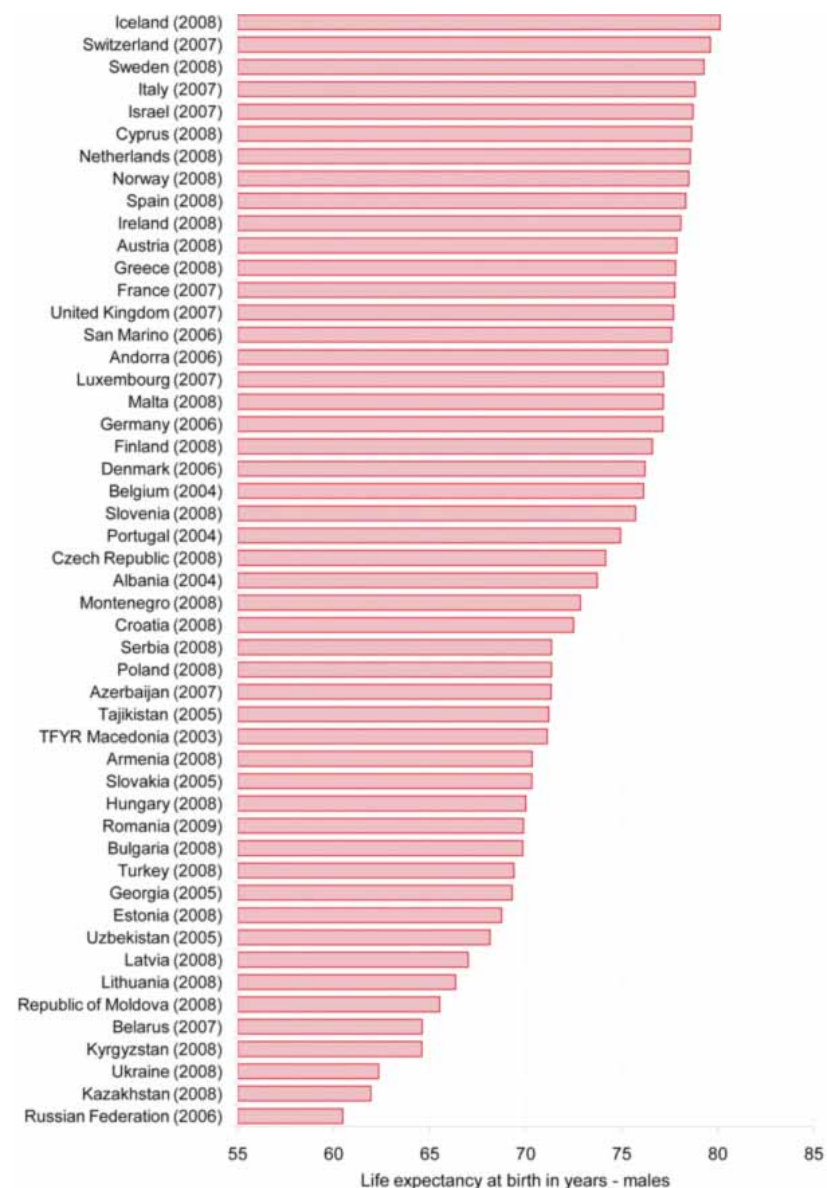


Source: European Health for All database [online database].(8)

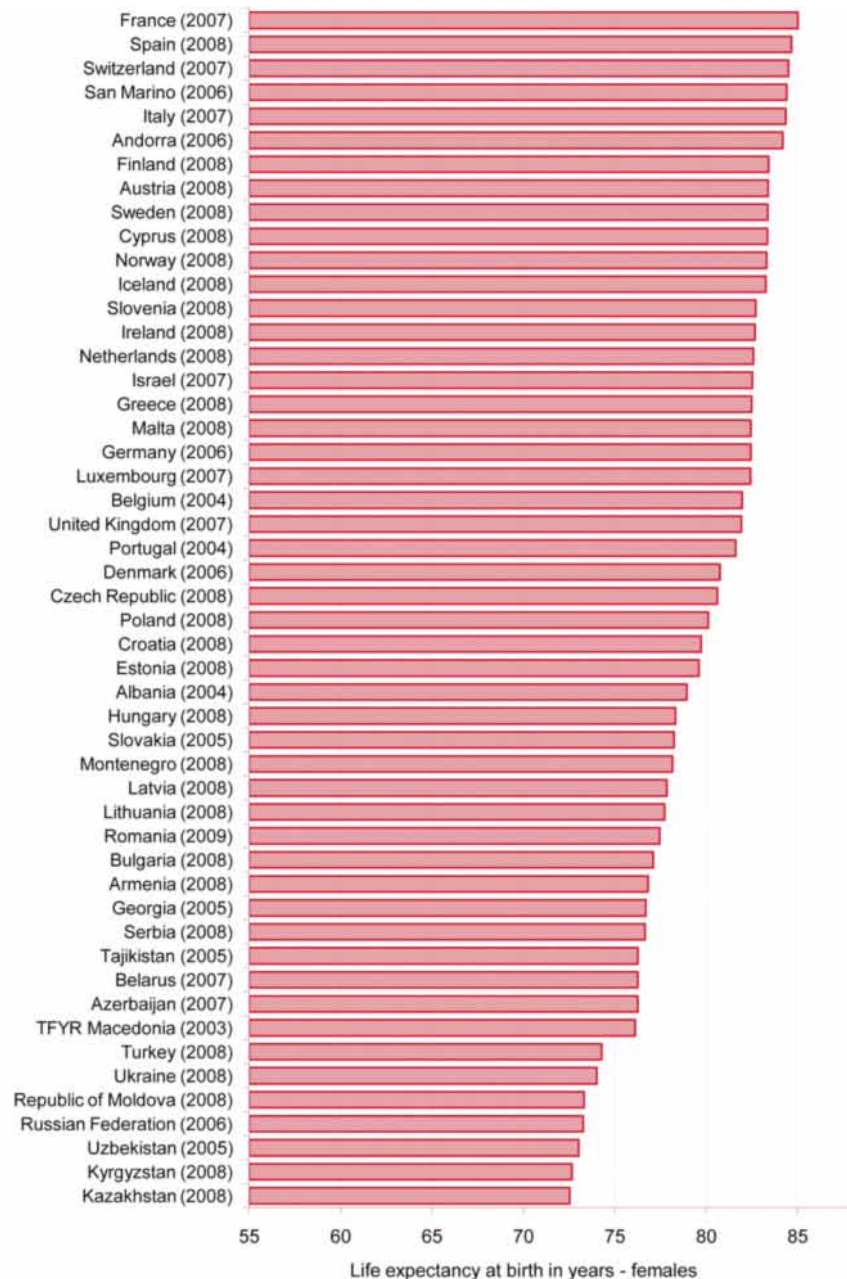
As Fig. 2 shows, the differences between countries are very different for the two sexes – with a range of 20 years for males and 12 years for females.

**Fig. 2** Life expectancy at birth by sex for countries in the WHO European Region, 2008 or latest available previous year

### Males



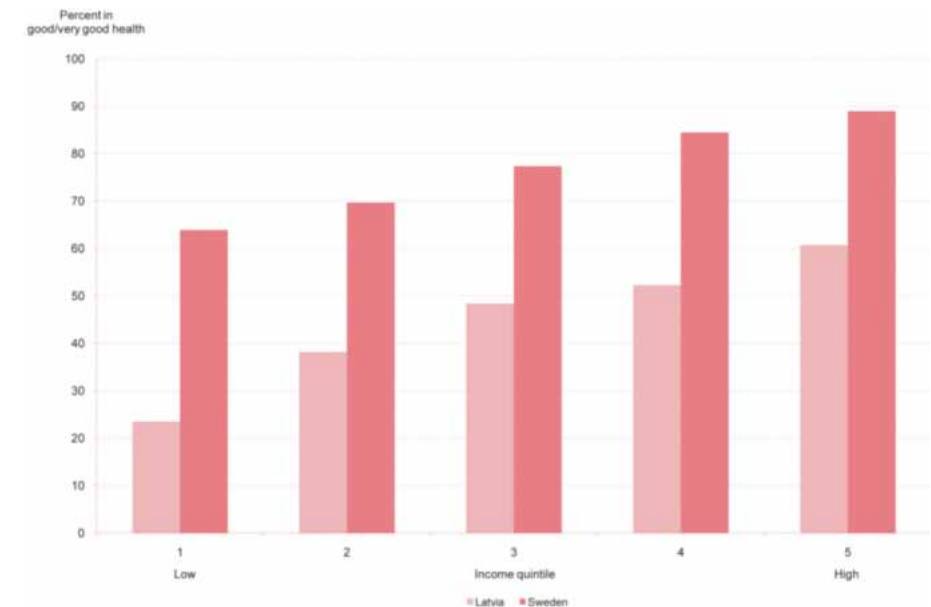
## Females



Source: European Health for All database [online database].(8)  
TFYR Macedonia: The former Yugoslav Republic of Macedonia.

For countries for which data are available, health outcomes also have a clear gradient across the population according to such social factors as income, education, social position and employment (9;10). This is illustrated by Fig. 3, which compares the gradient in self reported health by educational level in Sweden and Latvia.

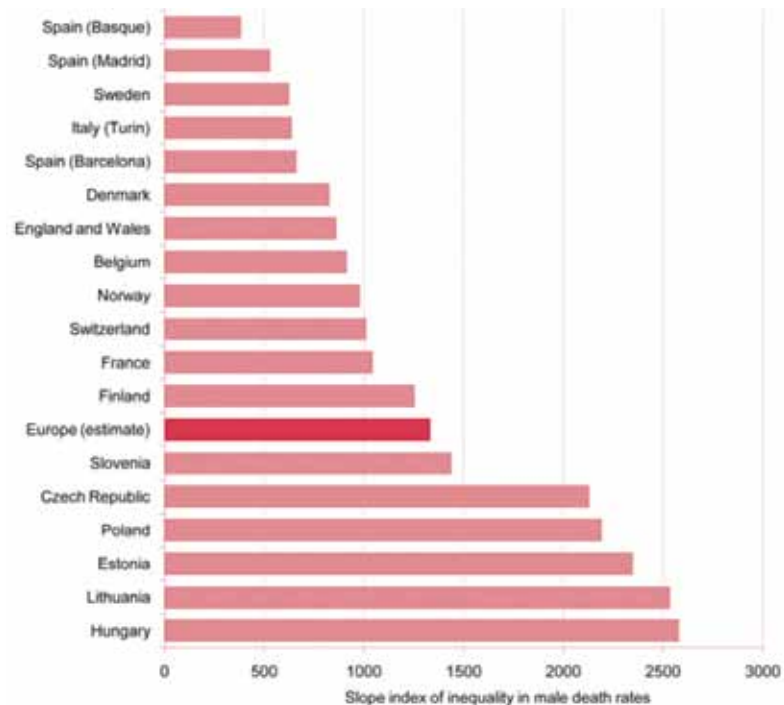
**Fig. 3** Per cent reporting their health as good or very good by household income quintile in Latvia and Sweden, 2008



Source: Bradshaw & Mayhew (personal communication), 2007 data from EU SILC 2008(11)

Despite very different levels of self reported health between Latvia and Sweden, there is a notable gradient in self reported health in both countries. Self reported health has been shown, in a wide variety of studies (12;13), to be a good predictor of future health. A systematic comparison of gradients in mortality inequalities according to educational level has been undertaken by Mackenbach and colleagues using individual information obtained by the Eurothine project from studies in 16 European Union countries (14). The evidence from this project points to considerable variation across the European Region in inequality in mortality, based on the length of education of individuals included in the studies covered (Fig.4). Inequality was greatest in the countries in central and eastern Europe included in the project and least in Italy, Spain and Sweden.

**Fig. 4** Absolute inequality (slope index of inequality) in male death rates by level of education



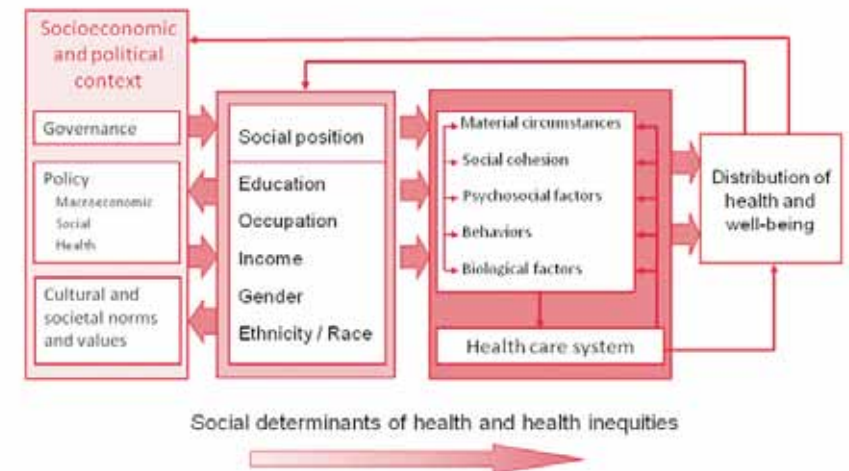
Source: Mackenbach et al. (10).

## The social determinants of health

Social factors that shape health across the Region and within countries are known as the social determinants of health (2). The European Review will adopt the conceptual framework developed for the Commission on the Social Determinants of Health (CSDH) (Fig. 5). A loose summary of this framework is the “causes of the causes.” In recent decades much public health has focussed on proximate causes of health, and health inequalities. In relation to chronic disease this has meant aspects of lifestyle: smoking, diet, alcohol consumption, physical activity. The CSDH, and our, perspective is that the causes of these lifestyle causes of poor health reside in the social environment, broadly conceived. Fig. 5 illustrates the “causes of the causes” starting with the nature of society, which may be influenced by global forces acting outside a particular country: the nature of trade, aid, international agreements, and environmental concerns given prominence by climate change.

Societal level processes influence exposure to health damaging (and health promoting) conditions and vulnerabilities (and resilience). Exposures and vulnerabilities are, in general unequally distributed in society according to socioeconomic position and/or some other marker of social position such as race/ethnicity or gender.

**Fig. 5** Conceptual framework of the Commission on Social Determinants of Health



Source: Commission on Social Determinants of Health (2).

The English Review, Fair Society Healthy Lives (15), following the lead of the CSDH, took a life course perspective and made recommendations in six domains:

- early-years experiences
- education
- employment and the quality of work
- the adequacy of social protection and income
- the types of places and communities in which people live
- ill health prevention strategies.

Underpinning this approach conceptually is the importance of empowerment: material, psychosocial, and political. This means having the material requirements for a decent life, having control over one's life and having political voice and participating in decision-making processes. The full realization of human rights is critical in improving health and reducing inequality.

This approach to empowerment has featured in several recent comparative studies in Europe (16;17)



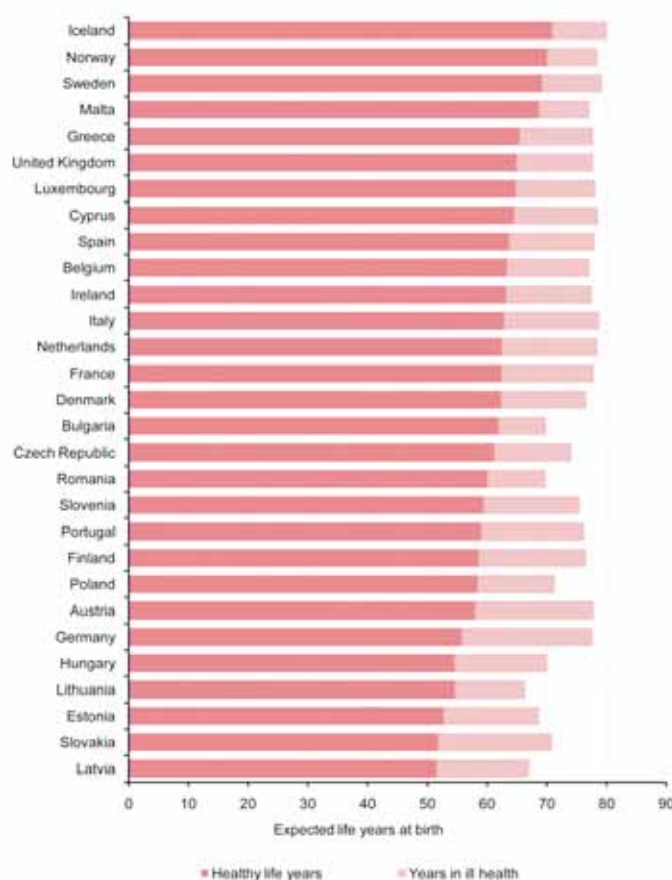
## Health expectancy and self reported health

Rising health care costs, ageing populations, and persisting health inequalities all point to action on the social determinants of health. A key issue in looking at differences in health arising from these determinants is the need to go beyond the relatively straightforward differences in the duration of life and consider the health that individual's experience during their lifetimes. One way of summarising this is to look at how many of those years were spent in good health and how many were not. Health Expectancies extend the concept of life expectancy to morbidity and disability in order to assess the quality of years lived (18).

In particular, Healthy Life Years (HLY) is a composite indicator of health that takes into account both mortality and ill-health, providing more information on burden of diseases in the population than life expectancy alone. The indicator "Healthy life years at birth", shown in Fig.6, is an EU Structural Indicator and one of the EU Sustainable Development Indicators.

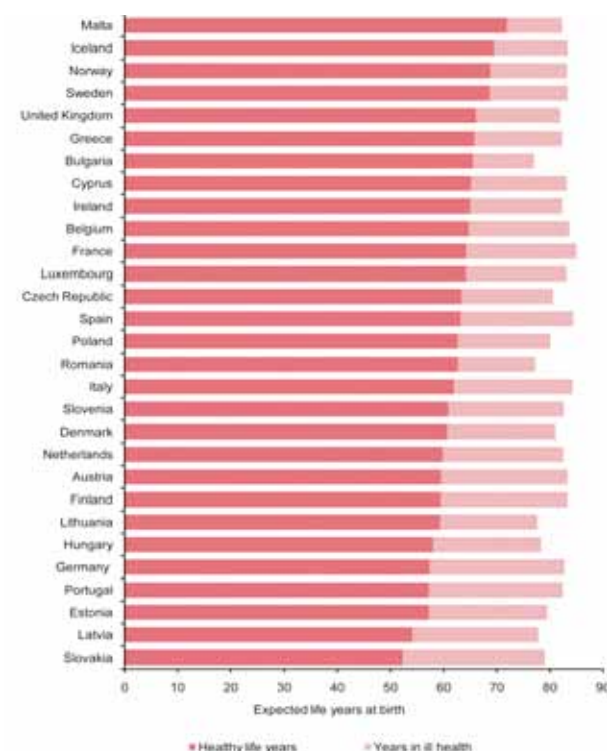
**Fig. 6** Healthy life years and life expectancy at birth, by gender, 2008a

Males



Source: Eurostat (2011) Healthy life years and life expectancy at birth, by gender(19)  
a Figures for Belgium, Italy and the United Kingdom are for 2007

Females



Source: Eurostat (2011) Healthy life years and life expectancy at birth, by gender(19)  
a Figures for Belgium, Italy and the United Kingdom are for 2007

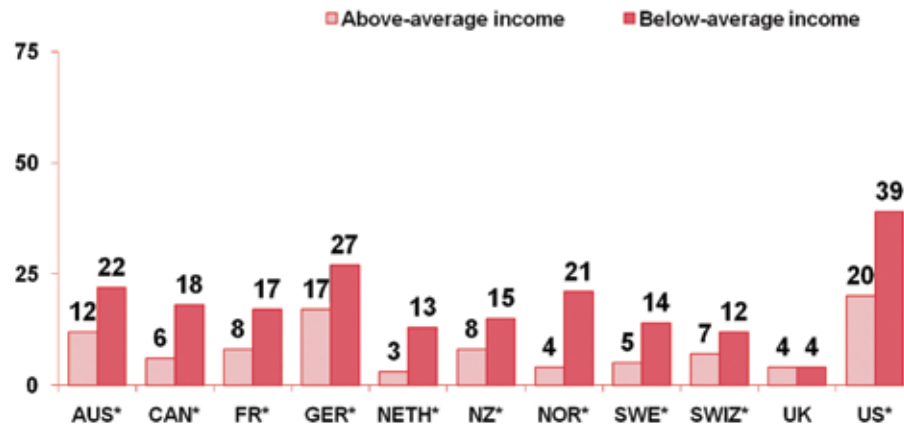
For the countries shown in Fig. 6, when healthy life years are calculated as described above, the variation between countries is 19.4 years for males - from 51.5 years in Latvia to 70.9 years in Iceland - and 19.6 years for females - from 52.3 years in Slovakia to 71.9 years in Malta. When these figures are used to calculate years spent in ill health, the length of time varies by 13.9 years for males – from 7.9 years in Bulgaria to 21.8 years in Germany- and by 16.3 years for females – from 10.4 years in Malta to 26.7 in Slovakia.

These comparisons are, of course, affected to some degree by cultural factors influencing the reporting of activity limitation, which may vary by country and gender. However societal factors play a significant role in these differences. These include limitations on access to health care in many countries. Fig. 7 illustrates that – with the notable exception of the UK – this is an issue shared by a number of high income countries.



**Fig. 7** Cost-Related Access Problems in the Past Year, by Income

(Adjusted) percent experienced at least one of three problems\*\*



Note: Percentages adjusted based on logistic regression to control for health status, age, and—in the U.S.—insurance status.

\* Indicates significant within-country differences with below-average income ( $p < 0.05$ ).

\*\* Did not fill/skipped prescription, did not visit doctor with medical problem, and/or did not get recommended care.

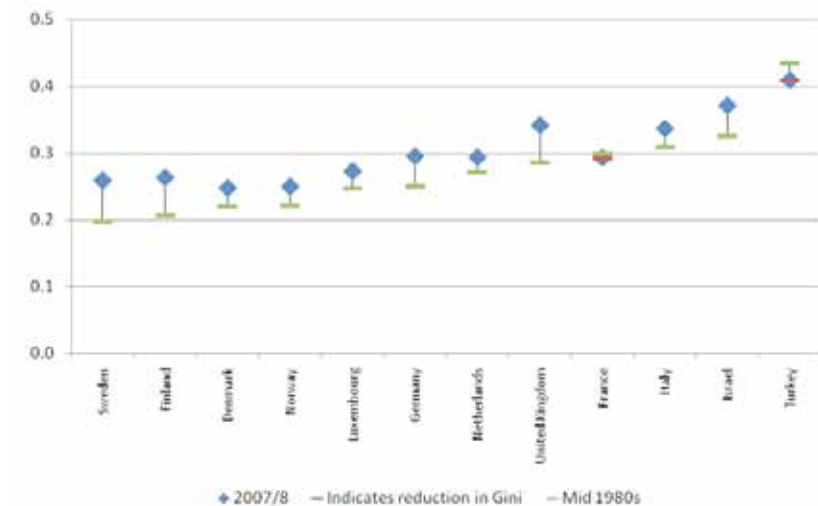
Source: Shoen et al.(20)

## Income and welfare inequalities across Europe

As indicated earlier, there is a clear relationship between GDP and spend on health care between countries, and individual income levels have a substantial impact on access (Fig.7). Fig 8 shows that where data are available to measure the change in income inequality over a 20-25 year period in Europe, income inequality has widened in the majority of countries. Countries with the lowest coefficients - Sweden and Finland – have seen some of the largest increases in inequality while Turkey, with the widest income inequalities, has seen a slight narrowing. As a result the variation between countries has narrowed.

**Fig 8** Change in the Gini coefficient of income inequality in selected countries\* in the WHO European Region between the mid 1980s and 2007 or 2008

Gini coefficient

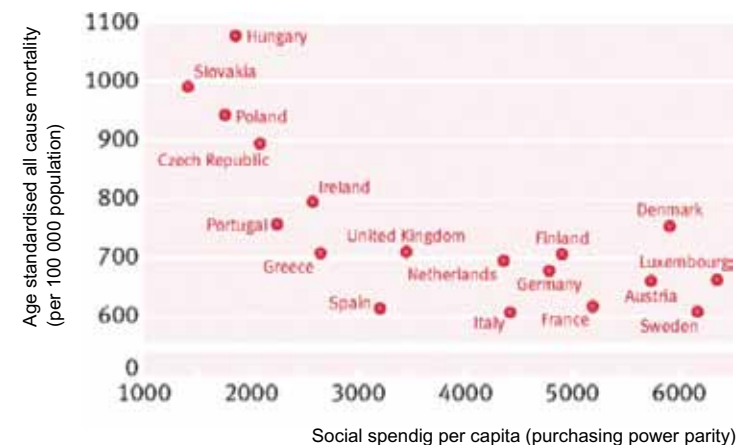


\* Countries shown are those in the WHO European Region for which OECD currently has data on the Gini coefficient of income inequality for both mid 1980s and either 2007 or 2008

Source: Provisional data from OECD Income distribution and poverty database(21)

Welfare spending is one of the main tools that Governments can use to ameliorate the effects of inequalities in earned income after tax. Fig. 9 shows a strong correlation between the level of social welfare spending in selected EU countries and health outcomes as measured by standardised mortality rates.

**Fig 9** Relation between social welfare spending and all cause mortality in 18 EU countries, 2000



Source: Stuckler et al.(22)

## Focus of the Review on the Social Determinants of Health and the Health Divide in the WHO European Region

The WHO European Region Review takes the perspective that there are significant health problems that need to be addressed across Europe. The health divide across the European Region continues to be unacceptably large. There is no good biological or genetic reason why there should be a 20-year gap in life expectancy between countries in the Region. Health inequalities within countries are persistently large and, in some cases, growing. As improved social conditions lead to better health, it is a matter of social justice that the benefits should be shared equitably.

The Commission on Social Determinants of Health provided the global evidence for what can be done to improve health equity, but the evidence and recommendations of the Commission on Social Determinants of Health need to be translated into a form suitable for the diversity of countries that make up the European Region. As one example, the *Marmot Review* of health inequalities in England is now being implemented in the constituent countries of the United Kingdom. Lessons from this and the accumulating evidence and experience from Denmark, Hungary, Lithuania, Norway, Poland, Republic of Moldova, Scotland, Serbia, Slovenia, Spain, Sweden and other countries need to be synthesized, lessons learned and applied across the European Region.

There are also strong examples of action at the subnational level. The WHO European Healthy Cities Network.(23), for instance, can help to show that local action can make a difference locally. Cities such as Malmö in Sweden and regions such as Murska Sobota in Slovenia and Kosice in Slovakia are developing and implementing multisectoral and stakeholder plans on the social determinants of health.

Local-level action is key to addressing the social determinants of health, with its proximity to peoples' lives and experiences. However, it is frequently constrained by national and global economic influences and power relationships. As a result, local action – as long as it remains local – has limited scope in changing the underlying influence and distribution of power, money and resources that perpetuate health inequity in society. For this reason, a concerted, multi-level approach is required in the process of developing, implementing and reviewing policy. This is needed to produce sufficient coherence, scale and intensity of actions capable of transforming the social gradient in health.

To identify the policies and interventions that need to be implemented to achieve these objectives, the WHO European Review is being informed by thirteen task groups. These are undertaking work to build on existing knowledge and propose effective strategies for action in key areas relating to health. Eight topic groups are each covering one or more of the key social determinants of health in the European Region and/or key life-cycle stages. Five cross-cutting groups are each focusing on issues that span across two or more of the topic groups.

Each task group is identifying the issues and processes within its thematic area that act as social determinants of health and influence health inequity in the European Region.

They will identify the relevance to the topic of the work of the Commission on Social Determinants of Health and other work in the European Region. The groups will then identify evidence to support specific interventions with the potential to reduce health inequity in the Region and highlight specific processes in the European Region that are relevant to achieving these interventions, taking account of the diversity of countries that make up the Region. Finally, each task group will propose effective implementation and delivery systems to tackle inequities within and between countries in the Region and identify gaps in knowledge and research needs and options for addressing these gaps. The task groups will work closely with the University College London and WHO secretariats and consult with experts and practitioners across the European Region.

## Conclusions

The global economic downturn has profound importance for the health and well-being of populations and is likely to worsen health inequity. The people who are already most exposed to vulnerability and disadvantage feel the effects of the global economic downturn more strongly. Sustaining a growing ageing population across the European Region requires increasing the focus on prolonging good health and well-being throughout the life course. This especially emphasizes taking a life-course approach to achieving equity in health and well-being and being responsive to the gender issues involved in health and survival.

Action on the social determinants of health is required to effectively deal with the continued toll from communicable diseases in many areas and the inequalities in their distribution.

Societies and global organizations need to respond to climate change and the rapid depletion of natural resources, which threaten catastrophic consequences for health and also have the most negative effects on people who are already most disadvantaged. Business as usual is not an option for the social and economic arrangements in the European Region; the actions required to achieve health equity and environmental justice need to be brought together.

Action on the social determinants of health contributes to producing other social benefits such as well-being, improved education, lower crime rates, more sustainable communities, balanced and sustainable development and improved social cohesion and integration. For example, early-years skills gained by the time a child starts school are crucial to self-esteem, motivation, friendships and long-term health and well-being. In this way, action on the social determinants of health demonstrates that investment for health equity can directly contribute to attaining other sectoral and government goals and challenges the notion that health drains public resources.

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## High Quality, Comprehensive and Without Barriers to Access? The Future of Health Care in Europe

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# High Quality, Comprehensive and Without Barriers to Access? The Future of Health Care in Europe

## Abstract

‘There are three widely accepted goals in the organisation of health care in Europe: care should be of high quality, it should be comprehensive and it should be made available without financial barriers to access. Public policy works well when it combines the three core purposes in acceptable ways. However, achieving such combination becomes ever more challenging as the tensions between them increase under pressure of background trends such as an ageing population, technological innovation and a global rise in healthcare costs. How may we examine these challenges in light of the policy aim to provide high quality, comprehensive healthcare, without financial barriers to access?

One important element of the social and cultural context within which the social contract has to be renegotiated is the high expectation that citizens have in affluent societies of the services to which they are entitled. However, one also needs to remember the fundamental rule about health care expenditure, namely that by the most elementary of accounting identities, all expenditure must equal income. Moreover, any renegotiation of the health social contract needs to be consistent with the demands of political accountability in a democratic society.

## Introduction

There are three widely accepted goals in the organisation of health care in Europe: care should be of high quality, it should be comprehensive and it should be made available without financial barriers to access. These are not the only important goals, but they define a set of core policy purposes. Public policy works well when it combines the three core purposes in acceptable ways; however, achieving such combination becomes ever more challenging as the tensions between them increase under pressure of background trends such as an ageing population, technological innovation and a global rise in healthcare costs.

It is in the context of these three potentially conflicting policy desiderata and the ambition to combine them, that a set of common challenges is faced in very different institutional healthcare settings across Europe. The principal challenges can be defined as scientific/intellectual; economic/financial; organisational/administrative and cultural – roughly speaking, what we know or understand, what we can afford, what we can organise and what we value. The purpose of this piece is to examine these challenges in light of the policy aim to provide high quality, comprehensive healthcare, without financial barriers to access.

The structure of this paper is as follows. We begin by setting out the basic empirical elements of the organisation of health care systems in Europe. We then consider each of the goals in turn identifying what are the challenges posed to retaining and enhancing those goals. Finally, we offer a brief summary in conclusion.

## Empirical Background

As soon as payment for service is separated from receipt of service – whether by private insurance, social insurance or tax funding – there are three principal actors to consider in health policy: patients, providers (hospitals, GPs and other medical personnel) and payers (insurance companies, insurance agencies or the state). Health policy is about setting the terms of the social contract (the regime of rules, roles and relations) within which these three groups of actors conduct their everyday business.

Two basic models for the organisation of health care are found in Europe. These are the tax-funded model found in the UK and the Nordic countries and the social insurance model found in Germany, the Netherlands and France. These are sometimes known as the ‘Beveridge’ and ‘Bismarck’ models respectively – after the historical figures most easily identified with their origins (see Bevan, Helderman and Wilsford, 2010). Within these two groups there are considerable variations, but each model is associated with a particular constellation of features. Table 1 offers a summary. This should be treated merely as a first approximation. For example, within the UK, which is often treated as the model of a single-payer system, the devolution of power means that there are separate sources of funding in England, Wales, Scotland and Northern Ireland (Oliver, 2009: 511). By the same token, there are true single-payer systems – the much lauded Canada being an example – in which there is a single payer but private ownership of provider assets, and even in the UK the ‘system’ should really be defined so as to include the private sector.

**Table 1:** Models of Health Care in Europe

	Beveridge Model	Bismarck Model
Source of Finance	Taxes	Social Insurance (payroll levy, supplemented for non-workers)
Number of Payers	Single	Multiple
Ownership of Provider Assets	Predominantly public	Multiple
Reimbursement Regime	Salary or Capitation	Fee for Service
Patient Access to Specialists	Through GPs	Direct
Possible Scope for Patient Choice	Of Providers	Of Insurers

There are different opportunities for change associated with each model. Thus in recent UK reforms the emphasis has been on increasing patient choice of provider, because there is no choice (outside private insurance) of payer. In the Netherlands, the emphasis has been on patient choice of insurer within a system in which insurers compete with one another on rate of return.

Many European systems do well in maintaining comprehensive, high quality care with no financial barriers to entry, although both Canada and Japan offer impressive non-European variants. Against this background, we see the principal challenge facing European health care systems in the next two decades as being to retain achievement of these social values in their systems whilst dealing with important and deep-seated trends of which the following are the most important:

- The ageing of European populations.
- Economic and financial constraints arising from the recession, particularly in relation to high cost items like social care and narrowly targeted pharmaceuticals.
- Avoiding effects from increasing social inequalities.

## High Quality

There are a number of dimensions relevant in defining the quality of medical care, including access to services, relevance to need for a whole community, effectiveness for individual patients and social acceptability (Maxwell, 1984: 1471). In practice, quality is typically maintained by professional accreditation standards, professional review and performance measures. However, there are system-wide features that affect the quality of patient care, so it is claimed, an example being the well-known 'Brookings' analysis of the UK's NHS as imposing long waiting times on patients (Aaron and Schwartz, 1984). The essence of this critique runs as follows. High quality care can be defined as the care that would be given by a well-qualified professional to a particular patient with a particular condition. Financial constraints in single-payer systems mean that there has to be some rationing device, and in the absence of the price mechanism waiting times fulfil this role. How far this is a system property, as distinct from an issue of inadequate funding, has been recently questioned (Oliver, 2009: 518-21). But of course it remains

true that financial constraint is more easily maintained in a tax-based system than in one with multiple payers.

Patients gaining access to the appropriate care they need is also an aspect of quality. So, an important element of the commitment to high quality care is the requirement that the system is not one in which there is two-tier care with some members having access to high quality care and others minimum or merely adequate care. There is, then, an equity implication for access at the population level, as well as physical, temporal and spatial implications for access at the individual level.

There are scientific, organisational and cultural challenges here: scientific in terms of translating medical advancements into practical interventions, organisational and financial in terms of making those interventions available to all patients and ensuring that clinicians are well equipped to do so, and even cultural in terms, for example, of tackling low uptake of services amongst 'hard to reach' patient populations.

The level of benefit at which interventions are considered to be effective is debateable: in instances where an intervention provides only very small benefits, or where it provides small benefits to only a limited section of a patient population, the question of whether the intervention can be deemed effective may be one which must be answered by means of a social value judgement as to how much benefit is required for a treatment to be classed as 'clinically effective' rather than by reference to scientific evidence as to whether just any benefit is provided. Of course, there are considerable scientific and financial challenges just in proving the effectiveness and safety of interventions: developing pharmaceuticals to a point where they are ready to go to market is a lengthy, costly and uncertain process, since even the best randomised controlled trials will not always produce straightforward results. Whilst that process pursues effectiveness, it can pose a challenge to the access dimension of high quality care: the long waits involved as treatments go through processes of clinical testing mean that benefits to patients are delayed often for years. There may be trade-offs here around making an uncertain benefit available to patients where conditions are life threatening or severely life limiting, and this presents a cultural values challenge as much as a scientific one.

Cultural and organisational issues associated with professional autonomy may also be relevant here. For instance, no matter what the skill of clinicians, the extent to which they are or are not obliged to follow organisational rules or nationally set clinical or budgetary guidelines will affect their practice, and this may lead to variations in patient outcomes in either negative or positive directions. Related to challenges associated with professional autonomy, there is also the issue of labour substitution. Cost pressures may mean that policy makers seek to encourage the substitution of the high cost labour of doctors by the lower cost labour of nurses and paramedics. Doing this without adversely affecting the quality of care is the challenge. However, it should not automatically be assumed that simply because labour is lower cost, it is therefore also of lower quality: for instance, experienced nurses may be able to offer, in the appropriate circumstances, care of an equal or even higher quality than inexperienced doctors. The challenge for quality of care may come in some measure from the number of staff available and the staff:patient ratio as well as from the level of qualification of the workforce (although staff numbers will likely be negatively affected by cost cutting measures, too).

Also related to the thought that high quality care is not defined by clinical interventions alone is an ethical and, in smaller part, organisational challenge of determining when



scientifically high quality treatments become low quality care. Advancing research and technology will increasingly mean that much more can be done – and there may be increasingly strong political and public pressure that what can be done should be done. Often, high-tech interventions will also be high-cost, but high quality care does not automatically mean expensive care. Attempts to extend life beyond a certain point by the use of all technological means and at great expense can be regarded as instances of low quality care. Such instances may mark the frontier of what is ethically acceptable whether or not the scientific frontiers are yet surpassed. One early example was that of Baby Fae in the United States, where serious questions were raised as to the ethics of ‘doing all that could be done’.

Financial challenges loom large in circumstances where medical technology greatly extends the limits of treatment, and the interaction of cost-effectiveness with high quality care cannot be ignored. There are those who say that cost-effectiveness is a condition for care being of high quality, but this is to confuse the opportunity cost of undertaking an intervention with the quality of that intervention once one has decided to undertake it. Hence, high quality care does not equate to cost-effective care: it is possible to have care that is clinically excellent but is nonetheless not cost-effective. As such, cost restrictions on the availability of clinically effective treatments can be regarded as a dilution of high quality care from the perspective of both the access and effectiveness dimensions.

Many fundamental improvements in the quality of care are related to underlying scientific developments and to the ability to translate those developments into improvements in clinical practice. The human genome project was launched on the promise of being able to identify the underlying causes of disease and so put medicine in a better position to treat those diseases. The complexity of dealing with this problem is considerable as the experience of Biobank UK goes to show: identifying genetic associations from population data is a large and complex task. Although there has been tremendous success in the rapid accumulation of genomic data, most of these vast data sets have not yet been translated into meaningful therapeutic tools. In the past, the translation of each genomic aberration into improved patient care has taken at least a decade and often large sums of money (Chin and Gray, 2008).

Related to cultural challenges about tissue donation is the wider issue of the role of patient information in improving quality of care, either via medical or health services research: this brings into focus a conflict between cultural values of, on the one hand the individual value of informational privacy and, on the other, the collective value of the potential benefits of research. It is also underwritten by organisational challenges related to legal restrictions on data use (Clark and Weale, 2010).

One hoped-for outcome of improved understanding of genetics is the development of ‘personalised medicine’: that is, treatment which is tailored to individuals on the basis of their predicted response to medicines. In terms of high quality care, this could be highly advantageous in terms of reducing adverse events for patients as well as maximising the economic value of each medicine. Organisational and cultural challenges to quality of care also arise in connection with questions around the delivery of services. Traditionally, care has been administered in clinical settings, but the changing nature of health care technology now means that it can be administered in other arenas, for example in the form of telemedicine or over the counter diagnostic kits. Such developments can, for obvious reasons, improve the access dimension of high quality

care given that, for example, telemedicine can be made available in patients’ own homes and over the counter tests are more readily available (and perhaps more likely to be taken up) than if the same tests required a visit to a GP. However, the extent to which these kinds of interventions are clinically effective remains to be seen. There is some evidence that the involvement of patients in their own care via telemedicine has led to positive effects in certain areas, notably in the field of chronic disease management. By contrast, however, the Nuffield Working Party on Medical Profiling found it hard to establish reliable evidence on the effectiveness of patient use of Over The Counter genetic testing services (Nuffield Council on Bioethics, 2010: 144-145).

It can be claimed that giving patients direct access to specialist care rather than requiring all care to be mediated through a GP is another way in which the quality of care may be improved, notably by increasing speed of access to specialist care. However, some suggest that it poses both organisational and financial challenges. One fear is that a trend of direct access to specialists could end up fragmenting both professional practice and patient care (Kodner, 2002). The rise of general practice grew out of the idea that medicine needs more integration, not less and, ideally, the family doctor can not only act across specialty and clinical boundaries, but also bridge the difficult gap between medical and social problems, if only by identifying need for other forms of care and making appropriate referrals (McWhinney, 1997).

A major organisational concern is the concentration of healthcare services. Consolidating services into fewer, more specialist units, may be another way of both providing higher quality care – and claims are also made about its ability to provide efficiency savings. However, greater concentration of services may result in compromises in geographical access and in timeliness of treatment for patients, thereby having a negative effect on both access and on effectiveness, where treatment is delayed. Similarly, greater diversity amongst providers of services – for example opening up delivery of healthcare to private and voluntary sector providers – may be thought another way to improve quality (and, some claim, efficiency) but there is no guarantee that it will increase the effectiveness of care, although there is evidence that some patients have preferences about who delivers which services. For example, there is a history in the UK of voluntary sector organisations providing hospice care at the end of life.

## Comprehensiveness

To say that care is comprehensive is to say that it does not only cover a limited number of conditions, but is in principle aimed at treating any illness for which there are available medical interventions. So if, for example, dental charges are not covered within a health care system, then there is a short-fall on the comprehensiveness of the care provided by that system. One prominent way of coping with cost pressures is to limit the comprehensiveness of care in this way. There are, of course, difficult practical and ethical questions about defining what constitutes illness and how treating illness can be distinguished from enhancing normal functioning, which some may consider to be rightfully beyond the bounds of even the most comprehensive healthcare. Thus, many people would say that pharmaceuticals to increase athletic or examination performance were enhancement rather than treatment of illness, whereas interventions aimed at rare

or even mild illnesses would properly count as health care. Yet there are many troubling instances that seem to lie between healthcare and enhancement and which present ethical and cultural challenges. Take, for example, the question of growth hormone, where it can prove difficult to reach agreement on the question of whether the achievement of 'average' height is a part of normal functioning or an enhancement of it. Even if there are not grounds in physical health for such an intervention, it is possible to imagine ways in which being of considerably sub-average height may adversely affect a person, such that their normal psychological functioning may be impaired. Much here depends on questions of social and cultural value which may differ markedly between countries.

An ageing population raises a key challenge in terms of the comprehensiveness of a healthcare system: elderly people, many with chronic illnesses or disabilities, require long term care which is part healthcare and part social service. This poses significant organizational and financial challenges. Health and social services are often funded and administered separately, with different institutional and professional cultures. The result for patients is a lack of co-ordination between service providers, little continuity of care, with vulnerable individuals falling through care 'gaps'. These failings can lead to crisis situations where patients require emergency hospitalization or where their health declines such that a failure of initial care leads to a need for more and more intensive services in the long term. Such scenarios are not only undesirable in terms of patient care, but also in terms of efficiency: in an area where costs are escalating and can be difficult to control in the best of circumstances, events such as unplanned hospital admissions and intensive care needs add an expensive extra burden. What is required is integrated care which can offer a co-ordinated package of health and social services: as Kodner puts it "a set of techniques and organisational models designed to create connectivity, alignment, and collaboration within and between the cure and care sectors at the funding, administrative and/or provider levels." (Kodner & Spreeuwenberg; 2002). Given the historical legacy of separate health and social care institutions, this will not be easy to achieve, but it is arguably central to the delivery of care which can legitimately call itself comprehensive.

However it is defined in particular healthcare systems, comprehensiveness is often compromised in order to secure high quality care or care without financial barriers to access. Perhaps it is precisely because its boundaries are so porous that it yields to compromise more readily than the other two policy goals. However, there are a number of ways of restricting comprehensiveness of care, each of which bring different challenges to the other aims: we can restrict by type of intervention (for example saying that social care is not included in the package of publicly funded care); or by type of patient (for example, saying that patients whose lifestyle choices affect their condition will not be covered); or simply by level of cost (for example, by maintaining a cost threshold on cost of pharmaceuticals). Which type of restriction we choose will reflect our conception of what comprehensive care means: for example, if we are determined that social care is unalterably a part of any comprehensive system, then this is unlikely to be a casualty of compromise. Whereas, if our view is that interventions relating to lifestyle choices are less central to comprehensive care, then we may lean towards the view that if restrictions are necessary, making them on grounds of personal responsibility for the consequences of lifestyle choices may be one of the least bad options.

## Without Financial Barriers to Access

A key aim in most European healthcare systems has been to share the financial risks associated with ill health via a form of social solidarity, such that no individual who needs care should be prevented from accessing it because they cannot afford to pay for it. However, demography, the increase in chronic diseases and the high cost of pharmaceuticals are combining to exert a considerable strain on these cost sharing arrangements. Securing care without financial barriers involves a challenge of values around what level of healthcare a society should fund, where the reasonable limits of social solidarity might lie, and what care can legitimately be left to patients to purchase individually. Once the limits of public funding for healthcare have been identified, there is then an organisational challenge of how to design systems of co-payments which do not jeopardise access.

Recent UK cases on anti-cancer drugs have illustrated the difficulty of these challenges and highlighted the extent to which cost-pressures can have implications for both quality and comprehensiveness (for full details, see Weale and Clark, 2009). Some clinical effectiveness had been proven by the drugs in these cases and they had been prescribed privately to patients by oncologists, often as a 'last hope' after other interventions had failed. Thus there are grounds for arguing that they constituted high quality care. However, due to their high cost and low cost-effectiveness, the drugs were not approved by the UK National Institute for Clinical Effectiveness for use in the NHS: that is, they were ruled beyond the bounds of comprehensive care. The institutional background is complex, but the effect on patients who wanted to access the drugs in question was that they had not only to purchase them privately, but also were excluded from any associated NHS care, due to the strict rules on charging to which that institution is bound. Arguably, the situation presented one in which there were significant financial barriers to access for care which was of clinically high quality but had been deemed to fall outside the limits of comprehensiveness on grounds of cost.

However, to say that medical care should be high quality and comprehensive is not to say that it should be unlimited: given the rising costs of healthcare, there is a need to impose constraints on what can be afforded and cost-effectiveness is one way of doing so. Highly expensive healthcare – that is to say health care that has a low cost-effectiveness ratio and costs a lot absolutely – would be attainable provided that citizens as tax-payers or funders of the system were prepared to pay more, but therein lie significant political and cultural challenges that we must presume will not be tackled in the near future. The role of cost-effectiveness in any public healthcare system is thus vital in ensuring that taxpayer's money is only spent on those treatments that justify the opportunity costs, since any expenditure on one patient inevitably means less for someone else: highly expensive interventions of low effectiveness potentially impose loss of services upon a large number of other patients. From this point of view, cost effectiveness can be seen as preserving a fair balance among a set of potential recipients of healthcare. As a consequence, the imposition of financial barriers to access to those interventions which are not cost effective might be thought fair; indeed, it has been argued by Dworkin that it would be a disservice to justice for some citizens to expect other citizens to pay for cost-ineffective care (Dworkin, 2000; 315). But although cost-effectiveness analysis is an integral part of the solution, it is only part of the solution,

and there are many problems in carrying it out.

Over and above any organisational or scientific constraints on what can be provided, and given the imperfect nature of cost-effectiveness analyses, there is thus a fundamental choice of values to be made about the appropriate level of healthcare – that is, healthcare without financial barriers to access – that a society should fund, and what can be left to the individual to purchase privately in the form of co-payments. Co-payments do the opposite of requiring everyone to make a contribution for example to clinically excellent but cost-ineffective interventions. Rather, they allow individuals the freedom to choose such treatments where there is no social decision to assume collective responsibility. Determining where the line of collective responsibility falls is the challenge, and how it is addressed will turn upon the balance between the social values of autonomy and solidarity – a balance which will be struck differently depending on the society and the healthcare institution in question.

Making policy decisions about which services are candidates for co-payment is a difficult task. One criterion already mentioned is that of cost-effectiveness: the opportunity costs of cost-ineffective care may suggest that it is a likely point at which the line of collective responsibility is drawn. As the UK anti-cancer cases showed, whilst compromises on clinical excellence may be necessary in order to secure publicly funded healthcare which is comprehensive and without financial barriers to access, such compromises need not be accepted by those individuals who are willing to make the financial sacrifice to obtain the most clinically excellent (but cost-ineffective) care. The choice to do so may be an imprudent one, but it is a controversial question as to whether, or when, society should restrict people's freedom to make unwise use of their own money. However another, and perhaps more difficult, dilemma arises here: this is the question of whether allowing some to pay for clinically excellent care is merely allowing them to supplement their fair share of resources in a way that does no harm to others (no other patient is deprived of anything as a result), or whether, even though their choice does no harm to others, it should not be permitted because those (poorer) others are wronged by being financially barred from the relevant treatments. Thus, the question is what constitutes equitable treatment.

How that dilemma is tackled will, once again, depend partly on the values of the society in question and in particular the relative strength of solidarity in that society and the conception of equity which dominates within it. However, it may also involve the nature of the treatments in question: societies typically take a different view on the cost-sharing appropriate to services such as teeth whitening or tattoo removal than to the costs of access anti-cancer drugs. The extent to which people might be 'wronged' by not being able to access teeth whitening treatments seems lesser than if the services in question are treatments for cancer: there is little inequity in varying access according to ability to pay in the case of teeth-whitening, it may be suggested, because no wrong is done to someone if their teeth are not whitened at public expense. The difference here comes down in large part to what is medically necessary and what is not. However, there are many cases in which this distinction runs into problems. Some ground is shared here with questions around what counts as treatment for ill health and what as enhancement (mentioned in the section on comprehensive care, above), but other, quite subtle issues arise around, for instance, different standards of hospital accommodation:

general 'hotel' services of hospitals could be offered at different levels of cost such that co-payers had access to private rooms and more varied meal choices. As Culyer has commented, "if equity of distribution derives from the ethical importance attached to health, then not all health-affecting care services have equal equity significance and may be irrelevant" (Culyer, 2001; 277). There may be truth in this, but it risks ignoring how apparently 'marginal' factors like different standards of hospital accommodation can affect patient's overall levels of well-being and their recovery from treatment. So, whilst they might be 'strictly' irrelevant from the perspective of equity, it is not clear that they are irrelevant from the perspective of real human patients.

Questions of how to accommodate patients who are paying for treatment and those who are not may seem too grittily practical to enter into relatively high level policy concerns, but they pose real administrative challenges (although it could be argued that the reason why such challenges are troublesome lies in the deeper ethical issues over equity). For instance, in the UK, the question of precisely where – that is, in which beds – cancer patients who were paying for non-NHS drugs should be treated was thought central in the independent review which considered the issue (Richards, 2008; 45-55). Others have drawn attention to the concerns of professionals who might be treating similarly placed patients differently, as a result of some having paid for certain elements of care and some not (Richards, 2001).

Notwithstanding these challenges, it is likely that all systems will have to continue or increase co-payments by patients, given pressures of background trends and the need to secure adequate measures of high quality care and comprehensiveness. France, Germany and Norway already routinely charge for some services, and the UK has legislatively mandated exceptions to the NHS non-charging regime for prescriptions, dentistry and certain ophthalmology services. It is important to note here that absence of financial barriers need not imply that all medical services are 'free at the point of use': the organisational challenge here is to design a system of charges so that it does not debar patients from getting the care they need. This is a complex task, and it will depend in part upon the level of charges levied and upon whom those charges fall. The impact of charges (as well as other costs of accessing care such as travel to hospitals) will obviously affect different socio-economic groups in different ways: for wealthier groups, access may not be compromised even where charges are relatively high, whereas for poorer populations even small costs may represent a significant deterrent to using services. As such, the extent to which people are financially debarred from access depends on the magnitude of the costs and on patient's willingness and ability to pay – that is, equal costs do not necessarily lead to equal access. Whether charges are means-tested or universal will clearly affect the distribution of impact here. But the bare fact that large out of pocket costs impact so disproportionately and so devastatingly on the poor, turning a catastrophic health event into a catastrophic health and financial event, highlights the importance of decisions as to where the line of collective, social responsibility for healthcare lies.

## Conclusions

The challenges facing systems that wish to preserve high quality, comprehensive care without financial barriers to access are considerable and occur at many levels, as we hope we have illustrated. The difficulties of negotiating a social contract that appropriately balances these objectives where they conflict are also considerable. One important element of the social and cultural context within which the social contract has to be renegotiated is the high expectation that citizens have in affluent societies of the services to which they are entitled. For example, once offered a choice between providers, as in the UK, or between insurers, as in the Netherlands, it is unlikely that the choice can then be taken away. Here we can expect a ratchet effect to operate. On the other side, one also needs to remember the fundamental rule about health care expenditure, namely that by the most elementary of accounting identities, all expenditure must equal income. To control expenditure is eventually to control the incomes of providers. Here again ratchet effects are likely to be strong. Moreover, any renegotiation of the health social contract needs to be consistent with the demands of political accountability in a democratic society. The future of health care in Europe promises to be interesting.

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## Pharmaceutical Cost-Control

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# Pharmaceutical Cost-Control

## Abstract

In recent decades, European spending on health care has increased at a faster rate than economic growth and the great majority of this expenditure is found from public sources. Value for money is an increasing concern, and new pharmaceutical pricing mechanisms – such as Value Based Pricing – are under discussion to try to generate more health and social gain within existing budgets. It is a reasonable prediction that there will be continuing concern in Europe with the pricing of pharmaceuticals paid for out of the public budget.

In 1948 the UK introduced the NHS. For the first time there was a universal health service in the UK. Before the NHS coverage was chaotic and very patchy. Working class women, in particular, had suffered from lack of access to health services and so one of the first jobs of the NHS would be to address the deficit in women's health. It would also put further effort into preventative medicine. Although these tasks would initially be expensive eventually they would pay off, so it was thought. Health need would fall, members of the government assured voters, and spending fall with it.

In 1950/51 – described as 'the first year of stability' – 4.1% of GDP was spent on the NHS. Predictions of a fall at first proved correct, and in the mid-1950s spending was down to 3.5%. But from then on spending rose. In 1963/4 the level was back up to 4.1% (Webster 2002, 34) and the trend of upward drift continued. By 1998 total spending on health in the UK was now around 6.5% of GDP, comprised of around 6% of GDP on the NHS and the remaining 0.5% on private expenditure. Just ten years later, in 2008, the respective figures were 8.0% of GDP on the NHS and 0.7% on private medicine (OECD 2010b).

Although different countries have undergone growth spurts at different times, the proportion of national income spent on health in virtually all developed countries has risen and risen. The OECD produced the following figures for 2008 as the total spending on health as a proportion of GDP among European countries: France 11.2%; Germany 10.5%; Greece 9.7%; Italy 9.1%; Norway 8.5%; and Finland 8.4%. These are all above the OECD average of 8.3%, with the lowest figure of 5.5% from Romania (OECD 2010b, 107). The OECD comments, 'While the rate of increase in health spending has slowed in the period 2003-08, health expenditure growth has still exceeded economic growth in almost all OECD countries in the past 15 years' (OECD 2010a, 14). Hungary is the only country in the OECD where growth in spending on healthcare is behind economic growth, and even here the difference is negligible. Within the OECD, health expenditure as a proportion of GDP rose from 5.2% to 9% between 1970 and 2008 (OECD 2010a, 16). It is often said that for every 1% of growth in GDP health spending grows by 1.1%.

While increased spending on health care in the UK over the last decade was a deliberate policy there has, at all times, been a concern whether value for money is being obtained. The most prominent focus for such concern is the funding of new pharmaceuticals within the NHS. In 1999 the government set up what is now the National Institute for Health and Clinical Excellence (NICE), which, among other things, makes rulings on whether new treatments are cost-effective, engaging in what is known as Health Technology Assessment (HTA) of which assessment of medicine is the most important sub branch (known as Pharmacoeconomic Assessment (PEA)). This is, without doubt, the most politicised area of attention within the Health Service. NICE's decisions, as well as its general procedure, have been the target of numerous media campaigns, legal actions, and criticisms from politicians. Turning down a drug that people believe could make all the difference to their lives is obviously a highly charged matter. And no wonder it attracts criticism.



Yet there is something very peculiar about the attention given to NICE and its decisions. To take figures for 2007, the UK spent around £95 billion pounds on the NHS, of which £11 billion was spent on drugs. Of this £3 billion was spent on generics and £8 billion on patented drugs (OFT 2007). However, within the NHS a good portion of spending on branded drugs is for drugs that were approved for use before NICE started its work. The budget for new drugs is a tiny corner of NHS expenditure: “new innovative drugs approved by NICE between 1999 and 2004 added £800m a year to the UK drugs bill.” (Moon et al 2010, 30). Other estimates put the figure at close to double this (OECD 2010). But if these figures represent top and bottom estimates NICE is responsible for somewhere between 1% and 2% of the NHS budget. This is comparable to the spend on the new IT system Connecting for Health. Yet with the possible exception of the employment of managers and financial consultants, it is by far the most controversial area of the NHS budget. Making better use of the pharmaceutical purchasing budget has been emblematic of the idea of cost-containment within the NHS, even if there may be much better scope for savings elsewhere. This is also true, to a greater or lesser extent, in other European countries, and similar discussions are taking place probably in all European countries (OECD 2010).

Given the political importance of NICE and its decisions, it is worth looking at how drugs are priced in the UK. At the moment, in its main function NICE has little directly to do with the pricing of drugs, although recently it has been given the role of contributing to pricing policy in some special cases. But more generally it assesses whether drugs offer value for money at the announced price, and if so for which medical conditions. For this reason it is often assumed that drug companies can charge whatever they want, or at least can get away with doing so, and hence can and do make excessive profits. Yet this perception is not entirely accurate.

From the point of economic theory the pricing of branded drugs in any national health system is a very interesting issue. On the one hand, drugs are patented, and so there is a monopoly on the particular drug, although, of course, it is sometimes the case that another patented drug has a similar function. But in cases where there is no substitute or replacement, the patent holder has an effective monopoly, and economic theory predicts that they will charge a profit-maximising price, which is likely to be much above what would have been a competitive market price. However, this is too simple, for a national health system is close to a monopsonist – a sole purchaser of a product – normally being by far the largest purchaser of drugs in the country. Hence the health system has market power to match the supplier. Economic theory suggests that in this case there is nothing left but bargaining to determine a price.

But bargaining over every price would be time-consuming and inefficient, and in any case it is an unequal contest as the purchaser has the power of law and regulation on its side. Different countries have developed different ways of trying to solve the problem. The matter is further complicated by the fact that while countries want a low price for drugs they also want to do business with drug companies in the future, and so need a scheme that gives both sides good value and a reason to stay in the market.

In the UK we currently run a little known but very important arrangement known as the Pharmaceutical Price Regulation Scheme (PPRS), which is a voluntary scheme that has been running since 1957 and is renegotiated every five years. It limits the amount of profit drug companies are allowed to make by selling drugs to the NHS. Each year

pharmaceutical companies have to open their books to the NHS accountants and if the profits they make are above a certain level then there is a ‘clawback’. Furthermore, the agreements have to be renewed every few years and each time price cuts are negotiated as part of the contract (OFT 2007). Hence although it appears that drug companies can charge what they want, in practice there are both price controls and profit controls, enforced by the government. Similar schemes to contain prices can be found throughout Europe, sometimes by use of ‘reference pricing’ where the price a country is prepared to pay for a drug is influenced – sometimes even determined by – some sort of weighted average of a basket of international prices. The UK, for example, is said to be used as a reference price in about 25% of the world market (OFT 2007).

In 2007 the Office of Fair Trading produced a report finding fault with the current scheme, making two main criticisms. First, the report noted that GPs very often continue to prescribe well-known branded drugs even when much cheaper generics, which have the same therapeutic benefit, become available. It has recently been claimed that more than £1 billion could be saved a year in this simple way (Moon et al 2010, 30), although this figure has been challenged (for example if a doctor has finally managed to get a patient’s chronic condition such as epilepsy under control, the doctor and patient might reasonably be reluctant to experiment with generics even if the chemical formula is the same). Second, it was alleged that drug companies put a great deal of research effort into drugs for chronic, non-fatal conditions that are only a slight variation on existing drugs, and thus give only small additional therapeutic benefit. Although the OFT deliberately refrained from using the language, this is a reprise of an oft-made allegation that there are currently commercial incentives to generate ‘me too’ drugs, as they can capture a significant part of an existing market for a relatively modest research investment.

To replace the current scheme, the OFT proposed the idea of Value-Based Pricing (VBP), in which the price of a pharmaceutical would somehow reflect its therapeutic value. If a drug was only a small improvement over existing therapies, its price would be lower than had it been a significant improvement. There are, obviously, many different ways in which the general idea could be implemented (for a thorough discussion see Claxton et al 2011). To say that the price should ‘reflect’ value could mean that prices should be fully determined by value, or something much weaker: that value would be one factor taken into account alongside others. But the basic idea is reasonably clear and on the face of it appealing. Incoming Health Minister Andrew Lansley seems to have been taken by this idea, and the UK has announced an intention to introduce the scheme in 2014 and is consulting on the details (the consultation on VBP has just closed (DH, 2010)). Sweden is often said to have operated a similar system for some time.

It was odd, however, that the OFT thought that value-based pricing would be a way of encouraging GPs to prescribe generic drugs rather than branded drugs. The two issues seem to have no connection, and in the recent consultation document concerning value based pricing this issue is no longer mentioned. However the ‘me too’ drug issue remains prominent. On the face of it, of course, this is a reasonable concern. Drug companies can ‘reverse engineer’ a popular drug to understand how it works, and then, so it is said, work out a way of doing something similar, or perhaps slightly better, without violating existing patents. However, drug company executives sometimes claim that the accusation shows a lack of understanding of the drug discovery process.

One common route to drug discovery is that basic researchers uncover a physiological pathway that appears to be implicated in a medical condition. Drug companies then seek to find a compound that would act on that pathway, perhaps by blocking or enhancing a process. Generally, however, there is insufficient understanding of the physiology to design a particular compound from a purely theoretical starting point, and so if the potential market is large enough, drug companies will test a very large number of existing compounds to see whether any has an interesting effect.

Different drug companies will do this in parallel and each has a different library of compounds. Several may find that they have a promising compound. The companies will compete to get a drug through the various testing stages and to be first to market. This process can take fifteen years from start to finish. Once a drug is available, all the competing companies, naturally, have lost the race to be first to market. However, several are likely to have drugs in development, and it may be that some of these will be superior in some ways to the one that arrived first. The second and third drugs to market may then be denigrated as ‘me too’ products, but, so the drug companies claim, this was never the intention, for the hope was to be first to market. If they cannot get their drug to market because the entire market has been captured by another product they will have written off perhaps hundreds of millions of pounds of development costs. At least some ‘me too’ drugs, then, are an inevitable consequence of the competitive drug market, and indeed have the further benefit of exerting price competition. Hence some of the criticism of them seems misguided. One person’s ‘me too’ is another person’s ‘healthy competition’. Nevertheless, it is an empirical question of how many ‘me too’ drugs are created in this way, and how many by mimicking the action of an already patented therapy.

In any case, there is a separate question of how such drugs are to be priced, and value based pricing will presumably lead to a lower price for second and third to market drugs than are experienced now. Or at least if it doesn’t then it is hard to see its advantages. But if it does have this effect, then this should be enough, on its own, to squeeze more value out of the NHS drug budget, provided that there are not larger negative consequences elsewhere.

Value-based pricing, however, has greater ambitions than this. It is argued that it will change the incentives in the drug discovery market away from areas that are already well-served for therapies towards those where there are relatively severe conditions that currently go untreated, for there the ‘health value’ gains are likely to be the largest and so the greatest profits are to be made. Indeed, in the current consultation exercise there is a clear proposal that there will be special consideration given to high ‘burden of illness’ where there is great ‘unmet need’ or diseases are ‘particularly severe’ (Department of Health, 2010, 13).

In theory this sounds like a reasonable hope, but in practice there is a concern that it shows a weak understanding of the international pharmaceutical industry. First of all, as noted, the drug discovery period is about fifteen years and a drug company would be foolish to design its R&D around a pricing system that may well have changed again by the time the drug reaches the market. Second, drug companies already have incentives to address themselves to areas where the value gains are highest. Of course they also have incentives to research in areas of relatively trivial conditions where consumer demand is high – hair loss and acne are examples often given – but drug companies pursue many

lines of research, and the perceived lack of major new products in recent years is not for want of trying. Possibly it is because the ‘quick wins’ have already been achieved.

Third, even putting aside the first two worries – that the drug discovery process is slow and companies are already targeting ‘high health value’ areas – there is another issue, which is that the UK market is only 3% of the global pharmaceutical market, and so it is hardly reasonable to expect the multi-national industry to change its practices to address the pricing policies of such a small part of the market. In response it is said that the UK market is very influential, and, as already noted, around 25% of the world market uses UK prices for ‘reference pricing’. That may well be true, but whether reference pricing would still be used on such a scale if value based pricing is introduced remains questionable (of course it may be that it became even more influential).

Value-based pricing faces many challenges. For example therapies for drug-resistant tuberculosis, or for HIV/AIDS, are used in combination in order to avoid the development of drug resistance. How is the ‘health value’ to be distributed among the three or more drugs that are used together? Furthermore, the same drug can be used to treat different conditions, or in different populations, giving different degrees of health gain. Should it be priced as if it is more than one drug? And in any case, can health gain, or indeed other values such as innovation, be measured in a sufficiently precise way to translate into prices? And in addition, value based pricing could reveal that some drugs are under-priced relative to their therapeutic value: indeed any drug currently assessed by NICE as costing less than the £20,000 to £30,000 threshold could be understood as providing the NHS with a ‘windfall’ gain, and hence under value based pricing could become more expensive. The net consequences of VBP remain to be assessed, and probably for this reason it will be used as providing a cap on prices rather than a self-sufficient mechanism (Department of Health 2010, 12). But as the government has learnt with university fees, a cap can easily become a target.

Whether, and in what form, VBP will be introduced in the UK is unknown at the present time, but the fact that it is under such careful consideration reflects several basic concerns that have echoes throughout Europe. The first is simply the concern to squeeze as much value from the drug purchasing budget as possible. The second is to try to incentivise the lines of research that are likely to have the greatest long-term benefits. And the third, outside the scope of this particular piece, is to reconsider whether other social values should also play a part in the pricing of pharmaceuticals. In Sweden, for example, the pricing body, known as The Pharmaceutical Benefits Board (LFN) appeals to several principles including the ‘need and solidarity principle’ which it implements by, for example, being prepared to pay a higher price per QALY for drugs that treat severe conditions than those that treat mild conditions (OECD 2010, 93). These issues – value for money, innovation, unmet need, and what the Department of Health calls ‘wider social benefits’ (Department of Health 2010, 13) – will frame the discussion of the pricing of pharmaceuticals for the foreseeable future.

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## Summary report: Future of Healthcare in Europe conference

### Introduction

The Future of Healthcare in Europe conference, held in May 2011, dealt with the growing number of major and highly complex challenges that European governments face, which are putting unprecedented pressures on public health systems and are likely to test the distributive ethic of European healthcare.

The following is a short summary of the discussion.

## The health challenge

*Session 1* featured presentations and discussion from **Marina Erhola** (Finnish National Institute for Health and Welfare), **Harry Hemingway** (UCL), **Anne Johnson** (UCL), **Peter Littlejohns** (NICE), **Stanley Okolo**, (North Middlesex Hospital), and **Rosalind Raine** (UCL).

There is a need for European universities to commit to research that is collaborative and cross-sectoral in nature in order to address fully complex healthcare challenges. It is also important to motivate policy-makers to tackle problems. In the UK context, a number of paradoxes in public health continue, including the persistence of health inequalities despite improvements in life expectancy. Addressing the needs of vulnerable sub-groups remains an urgent priority.

The multitude and diversity of populations in Europe requiring healthcare heightens the challenge. Free movement within European Union countries means that individuals' expectations regarding health care and the treatment that they are offered may not match. Understanding the impact that hospitals have on the outcomes of the patients they treat can help pinpoint unacceptable and unnecessary variations in health outcomes within the UK and internationally.

Whilst decisions on healthcare priorities increasingly take account of 'value for money', they will always necessarily involve social value judgements. Furthermore, the various possible responses to the healthcare challenge are tied to existing political commitments.

In his keynote presentation, Michael Marmot asserted that 'inequalities are unfair if we can reasonably do something about them.' The conceptual framework developed by the WHO Commission on the Social Determinants of Health shows a wide variation in life expectancy at birth between different socioeconomic groups on a global scale.

Professor Marmot argued that there is a social duty to ensure dignity in healthcare and provide everyone with the minimum income necessary for healthy living.

## Technology drivers: problems and solutions

*Session 2* featured presentations and discussion from **Peter Coffey** (UCL), **Tom Kibasi** (McKinsey), **Elizabeth Murray** (UCL), **Madis Tiik** (Estonian E-Health Foundation) and **John Tooke** (UCL).

Although new technologies are increasingly seen as forming part of the solution to the health challenge such advancement does not come without a price. It is therefore important to balance potential cost-drivers by deriving greater cost-efficiency and economic productivity from technology. Technology can provide a real solution to growing healthcare costs in reprogramming the developmental origins of adult disease and personalised treatment. Although the role of regenerative medicine is a somewhat uncharted territory in healthcare, it can be a cost-effective solution for degenerative conditions such as age-related macular degeneration.

The electronic Health Record System in Estonia has been in operation for two years and has been used by over 95 per cent of Estonian doctors at a cost of €7.50 per citizen. Initial assessment suggests that 65 per cent of the cost is footed by the providers and 88 per cent of the benefit received by society, although more thorough investigation and assessment is needed.

It was also noted that innovative use of simple technologies which are used outside of Europe, such as telephone diagnosis and consultation, can contribute to the solution of healthcare challenges within Europe. E-Health offers opportunities for personalised, tailored healthcare and the scalability of large public health intervention, although inequality in access, efficacy, and implementation as scale remain problematic. Effective clinical communication with patients and their engagement in decision-making will be important in the use of new technologies in healthcare and to increase the uptake of new evidence-based practice.

**Michael Hübel** (of the European Commission's Health Determinants Unit), discussed the **role of the European Union with regards to health** in complementing the policies of member states shows great promise. Whilst the EU had started out as an economic alliance, the importance of health for the economic and social welfare of the union is increasingly recognised.

The EU has taken a comprehensive approach of promoting the inclusion of health in all policies and in organising and coordinating cooperation on a pan-European level. Common action can be taken to tackle many of the common challenges that impact populations across borders. However, there is more to be done within the EU in breaking down barriers between different sectors of society that impact upon the determinants of health.

## Economic models

*Session 3* featured presentations and discussion from **Iñaki Ereño** (CEO, Sanitas), **Steve Morris** (UCL), and **Andrzej Rynkiewicz** (University of Gdansk).

Sanitas, the Spanish private healthcare firm, owns three large hospitals and 47 smaller healthcare centres in Spain. Using the PPP model, Sanitas has built and managed hospitals and primary care settings in a 15 year contract whereby it is paid a capitation to manage and provide healthcare. Iñaki Ereño (CEO of Sanitas) stated that the capitation was 25 per cent less expensive than that paid to a public hospital in a similar situation and has generated a profit of 7.5 per cent, whilst satisfaction with the end-result was high in terms of simple surgical procedures. Given the complexities measuring the effectiveness of healthcare provision, more information on the provision of the most costly services, such as end-of-life care and critical care, would be useful.

Economics has a significant role with regard to healthcare, including in the meaning, measurement and valuation of health, assessment of the influences on health, evaluation of healthcare demand; examining the supply of healthcare; the market equilibrium of a healthcare system; economic evaluation by regulatory bodies; the planning, budgeting, monitoring and regulation of healthcare; and the evaluation of healthcare at the whole system level, especially in measuring inequality.

Private involvement has contributed to Poland's recent upsurge in Primary Percutaneous Coronary Intervention (using a balloon to reopen a blocked artery supplying the heart muscle) following an acute myocardial infarction (heart attack). Whilst such widespread delivery of this treatment is a step forward, it may not always be the preferred option. Although PPCI is a relatively cost-effective procedure and therefore attractive to private healthcare firms, this may not be the case in other medical procedures so a debate remains over the involvement of the private sector in.

## Responding to the challenge

*Session 4 featured presentations and discussion from **John Bowis** (Health First Europe), **Jennifer Dixon** (The Nuffield Trust), **John Martin** (UCL), **Lars Ryden** (Karolinska Institute, Stockholm), and **Steen Stender** (University of Copenhagen).*

The long-term rise in healthcare spending correlates with the rise in gross domestic product (GDP) rather than with any rise in healthcare need. The UK however is experiencing the most notable decrease in healthcare expenditure ever witnessed in the modern era (2.3 per cent in average spending on healthcare in recent years).

The European Society of Cardiology has taken an active stance in promoting a European-wide approach to cardiovascular prevention policy, focusing in particularly on institutions of the European Union, particularly attempting to impact through presidencies of the union and soft-law instruments of the Commission.

The gap between spending and needs can be seen in other countries as well. Responses in the form of payment reform have seen a move towards more capitation-based payment where a network of providers bears the risk, resembling the accountable care organisation model, of which Medicare is the prime example. Governments must also beware a paradox of efficiency begetting inefficiency (such as the rise of emergency admissions in the UK as a result of increased efficiency delivering greater availability of beds and more admissions).

'Healthcare policy should involve patients to reflect the role and perspective of the individual patient;' before 'patients are less able to accept decisions when they do not feel part of the process and reduced patient involvement leads to an increased disease burden in later life. Healthcare systems should build the bonds between the professional and the patient through education and the sharing of expertise, remembering that only patients can truly shed light on their own disease burden.

The measurement of outcomes in a rigorous, evidence-based fashion is also important. Effective health policy-making and pan-European action can have significant benefits for healthcare.

The positive impact of regulation on health can be seen in some European governments' reaction to the finding that **trans fatty acids** (TFAs) in food have an extremely harmful effect on health. After Denmark banned the use of industrially produced TFAs in food, a number of European countries followed suit, and part of the food industry has taken action to reduce the amount of TFAs in food. Whilst many Europeans are still likely to consume a high amount of TFAs, increasing the risk of ischemic heart disease significantly, the Danish have largely no intake of TFAs – due to effective regulation.

## Final reflections

**Albert Weale** argued that there is a wide consensus on what a good health care system is: it should provide high quality and comprehensive care without financial barriers to access. The problem and challenge is how to achieve this; costs need to be controlled yet treatment must be provided that is worth its price tag.

The growth of health care expenditure is a particular challenge because within most European systems, the costs of healthcare fall on the public as a collective. The real question is then not in the rising costs of health care but in the underlying social contract that is coming under strain.

86 per cent of deaths in Europe – according to the World Health Organization (WHO) – are due to chronic non-communicable diseases, and the main determinants of these diseases are tobacco, alcohol, diet, and physical activity. The new **European Chronic Disease Alliance** was put together to bring chronic non-communicable diseases into the attention of politicians. One of the challenges the ECDA faces is to convince politicians and policymakers of the importance of prevention and the lifestyle-related determinants of ill health. The preservation of health requires political support, persistence, collaboration, and, most importantly, a long-term view that looks beyond short-term costs into future benefits.

## Conclusion

New technology and economic models are likely to solutions to the healthcare challenges faced by European governments now and in the future, yet at the heart of the challenge is the need for political will to respond the challenge.

The conference discussed several means for maintaining the social contract and delivering cost-effective healthcare:

- Reducing the demands on the health care system, in particular by addressing the social determinants of health (this requires a strong and broad political will, which might be hard to achieve);
- Increasing productivity in the system by utilizing risk-stratification technologies, regenerative medicine, and ICT;
- Restricting support for high cost therapies through rationing: inclusion and consultation will be vital
- Persuading the public to pay more for their health care (but risking problems of access to healthcare if the public system is not maintained as most countries do not have a functioning system of cost sharing)
- Reducing provider incomes through allowing competition, although there is controversy as to how best to achieve this.



# Future of Healthcare in Europe

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