



Sector Futures

The future of health and social services in Europe

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Despite differences in political approaches and institutional frameworks, health and social services in all Member States face similar challenges in adjusting to demographic ageing, changing employment and family patterns, evolving technological opportunities and funding issues. This article, the first of three features on health and social services in Europe, provides a snapshot of the sector and looks at the major trends and driving forces shaping its future.

Introduction

The importance of health and social services is set to increase as European society grows older. This growing demand for services, provided by the public sector in many Member States, is creating unprecedented pressures on health and social care systems. Indeed, these systems seem to be in a perpetual state of reform and upheaval, creating a sense of uncertainty and even crisis. At the heart of the issue is the increasing cost of maintaining such health and social care systems.

Before looking at some of the trends and driving forces that are likely to shape the future of health and social services in Europe in 2015, the following is a brief overview of the sector.

Health and social services in Europe

The healthcare sector refers primarily to those services provided by hospitals, general practitioners and community clinics in the prevention, diagnosis, and treatment of illness. It is a major economic activity in Member States, consuming significant fractions of gross domestic product (GDP) - see figure 1 - and accounting for the employment of tens of millions of people across Europe. It is also a very complex sector, composed not just of healthcare service providers, but also funders (both public and private) and consumers (patients). In addition, important economic sectors are actively associated with the sector, most notably pharmaceuticals and medical equipment suppliers. This article, however, will focus on healthcare service provision and does not address directly any industries that supply the sector with drugs or equipment.

Social services can have multiple meanings and can include, for example, the provision of welfare payments and pensions. Here, the term social services is confined to work rendered by any person or organisation in furtherance of the general welfare of citizens. This includes, but is not limited to, services for:

- children and their families;
- disabled people of all ages;
- elderly people (especially those with mental health problems);
- people who misuse drugs and alcohol; and
- services in relation to HIV/AIDS.

Public authorities and voluntary organisations are typically the providers of social services, though the private sector may also play an important role, for example, in the provision of long-term care facilities.

Traditionally speaking, healthcare and social services sectors have been treated separately. This is partly on account of their origins but also due to the fact that interest groups have sought to maintain these boundaries. This situation is changing throughout the Western world. This is due to many factors including an increasingly elderly population, increased attention to prevention of disease as opposed to cure, and a greater demand from citizens' (customers) for

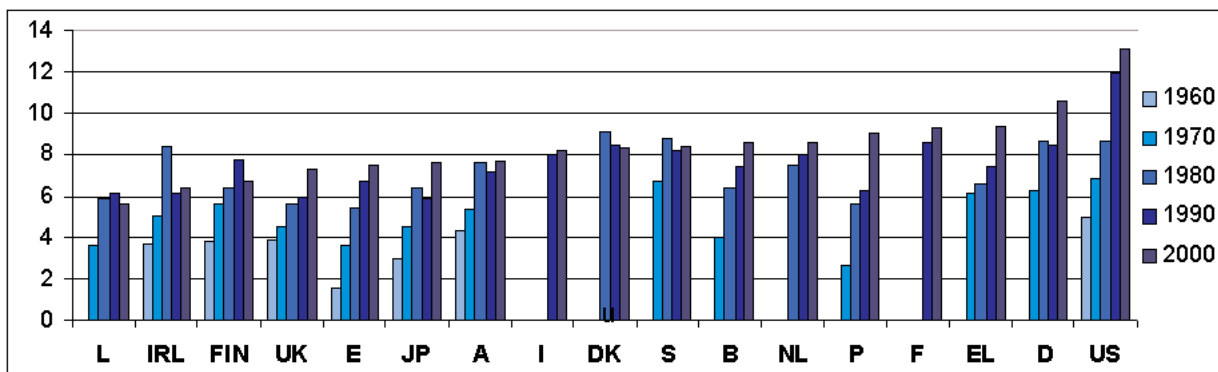
integrated services to meet their particular needs. The result is a growing emphasis on care (including healthcare) in the community, with much greater collaboration between healthcare and social services providers.

There are clear differences between EU Member States in the way healthcare and social services are both funded and delivered. Focusing on healthcare, the **European Commission**¹ has discerned two main models:

- Countries that offer a national health service free at the point of delivery (the Nordic countries, the United Kingdom and Ireland), where expenditure is funded mainly through general taxation,
- Countries in which there is an insurance-based system (the other Member States), where contributions are levied specifically for access to healthcare and where people are reimbursed for the services they purchase (EC, 2002, p. 41).

Though these systems may be different, all are subject to similar pressures, such as rising costs and expectations, and an ageing population. **OECD Health Data**² (see figure 1) shows total expenditure on health across EU Member States as a percentage of GDP. Germany is the biggest spender per capita on healthcare, although the United States spends more. In virtually all countries, healthcare spending is on an upward track. The main exceptions here are Ireland, Finland, and Luxembourg, where a significant increase in GDP over the last decade has meant that GDP has grown faster than healthcare spending.

Figure 1: Total expenditure on health as % GDP



Source: OECD, 2003

In Europe, all Member States have faced increasing pressure on health service budgets over the years. This is caused by an ageing population, growing levels of real income and advances in medical know-how which have expanded the demand for treatment. Whilst technology and automation have the potential to lower costs, those downward pressures are more than offset by the impact of an ageing society, health consumerism, and medical breakthroughs. This has resulted in an overall increase in cost at a rate of around 3% per year as stated in PricewaterhouseCoopers' **HealthCast 2010**³ (1999, p. 4).

¹ http://europa.eu.int/comm/employment_social/news/2002/nov/soc_prot_rep_en.pdf

² http://www.oecd.org/document/16/0,2340,en_2649_34631_2085200_1_1_1_1,00.html

³ <http://healthcare.pwc.com/cgi-local/hcregister.cgi?link=pdf/hc2010.pdf>

Many of the issues affecting healthcare also impact on social services, particularly an ageing society. Yet the work of hospitals and community-based care has evolved separately. Member States are now looking at coordinating both sets of services more effectively, for example, by shifting towards more home-based and community care coupled with appropriate use of costly hospital services. Developments in informatics and related disciplines are expected to provide huge scope for achieving this (OST, 2001, p. 8).

Trends and driving forces

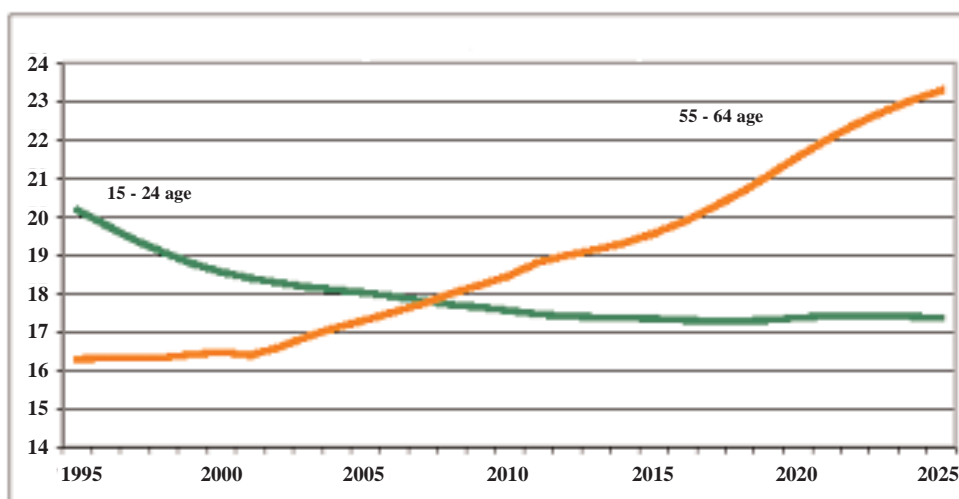
Trends and drivers affecting the health and social services sector are many and diverse. This article looks at those issues considered to be the most significant.

- Demographic and societal change
- Rising expectations and consumerism
- Health informatics and telemedicine
- New medical technologies
- Increasing costs of health and social services provision

Demographic and societal change

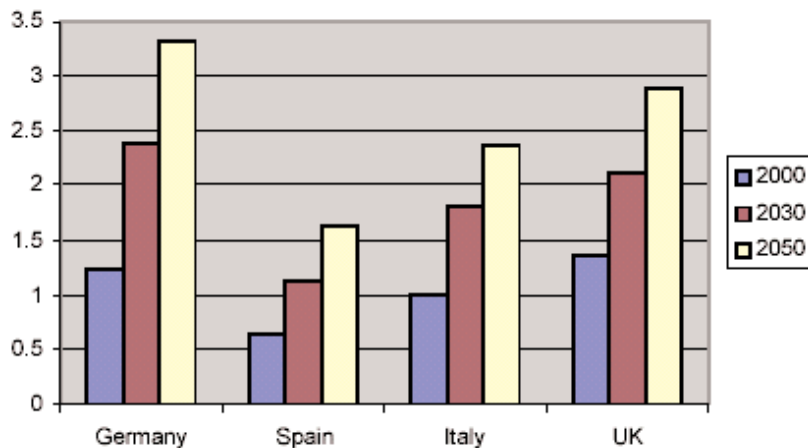
We live in ageing societies (see figure 2). But this is not just a matter of an ageing population - it also concerns the ageing of the workforce and 'elder ageing', i.e. the rapid increase in the number of people aged 80 and over. This phenomenon is described as 'triple ageing'. The implications of triple ageing for health and social services are profound. For example, it is estimated that healthcare costs for 65-75 year olds are 2.5 times greater than those for people under 65, whilst the costs for those over 75 are estimated to be 4.5 times greater (Coomans, 1999, p.14). Meanwhile, long-term care expenditure as a proportion of GDP is projected to almost triple over the coming fifty years (see figure 3).

Figure 2: Age groups 15-24 and 55-64 as % of age group 15-64 - EU15 - 1995-2025



Source: Coomans, 1999

Figure 3: Projected long-term care expenditure as a proportion of GDP in Germany, Spain, Italy and the United Kingdom



Source: Comas-Herrera et al, 2003, p. 9

The doomsayers predict fiscal catastrophe, with too few people in the workforce to cover the costs of pensions, healthcare, and long-term care for the elderly - known as the demographic dependency ratio. In this scenario, even intergenerational solidarity is under threat. Optimists, on the other hand, argue that technological advances will result in healthier elderly populations, the possibility of more home-based caring (a less expensive alternative to institutionalised care), and an overall increase in the productivity of the economy.

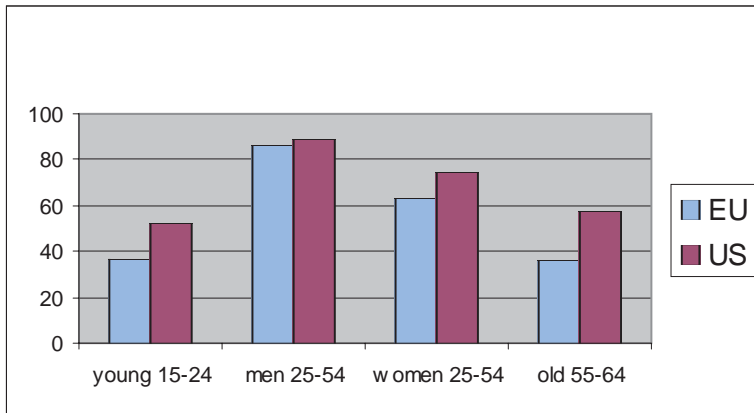
An ageing society also has implications for recruitment to health and social services jobs. These sectors must compete with others for a shrinking pool of talent and young recruits. Many Member States are already experiencing acute shortages of doctors, nurses, and social workers. This situation has intensified the recruitment of migrant workers within the healthcare sector in Europe. Nevertheless, it is certain that Europe will witness an increase in the age-profile of the professional workforce in the health and social service sector over the next decades.

Governments have also woken up to the demographic 'time bomb' and have been looking at ways of activating the considerable latent work force that exists in Europe. For instance, if pensioners could be convinced to work longer (especially early retirees) and if more women could be drawn into the workplace, then economic dependency ratios could be markedly reduced. Compared to the United States, the EU has significantly lower employment rates across all age bands (see figure 4). This is due largely to the tendency of women to work in the home in many European countries (especially in the South). It can also be accounted for by early retirement policies that have been popular in many Member States over the last decade. According to a recent **European Commission report**⁴ on the future of pensions:

There are nearly as many working-age people who are not in work as people who are. Within the group of non-working adults nearly six out of 10 are below the age of 65, many of who are in receipt of benefits of various kinds (see figure 5). By reducing the number of inactive among the working-age population, it will be possible to alleviate the financial burden of ageing that will have to be supported by the employed. Thus a crucial question is: to what extent will it be possible to counteract the impact of ageing on economic dependency rates by raising the overall employment rates? (EC, 2000b)

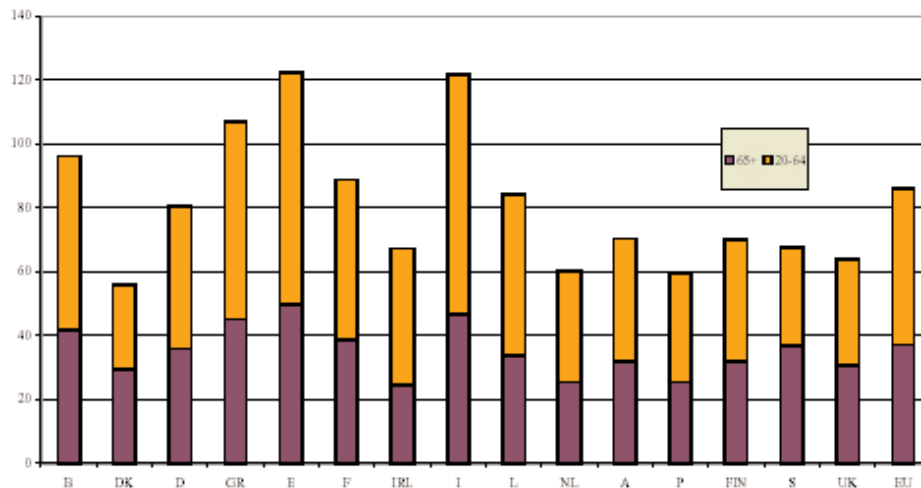
⁴ http://europa.eu.int/comm/employment_social/soc-prot/schemes/news/pension_en.pdf

Figure 4: Employment rates EU - US



Source: Eurostat, 1999 (quoted in EC, 2000a)

Figure 5: European economic dependency ratios



Source: EC, 2000b

Besides these demographic shifts, family patterns across the EU are also undergoing radical change. The **European Study of Long-Term Care Expenditure**⁵ says:

There is evidence of downward trends in co-residence of older people with their children, upward trends in older people living alone, a declining female care-giving potential and rising female employment rates. A reduction in informal care would have a major impact on demand for formal care. Informal care is therefore likely to be an important determinant of future expenditure on long-term care. (Comas-Herrera et al, 2003)

Thus, an ageing population and changing family patterns are set to have a profound impact on the health and social services required by European society and its ability to ensure payment and delivery.

⁵ <http://www.pssru.ac.uk/pdf/B14/B14Comas-Herrera1.pdf>

Rising expectations and consumerism

The term 'consumer patient' reflects the notion that people are increasingly expecting to receive the health services they require at an affordable price. Linked to developments in information and communication technologies (ICT), patients are increasingly informed about healthcare services. This reduces their dependence on professional 'gatekeepers'. In other words, patients are now better informed about their conditions and are less deferential to healthcare professionals.

The number and influence of vocal patient groups is likely to increase and the trend towards internationalising health interest groups is set to grow. For example, in 1998, the **International Alliance of Patient Organizations**⁶ was formed, bringing together 40 patient groups from across the world. The result may be that consumer organisations will finally be able to confront the interests of the health and pharmaceutical industries at national and international levels (PricewaterhouseCoopers, 1999, p. 8). Patient organisations, for example, could strike deals with companies for services or equity in exchange for providing tissue samples or clinical information (OST, 2001, p. 15).

Health informatics and telemedicine

It is clear that such technologies are changing the face of healthcare. For example, the Internet already offers society the opportunity to become better informed on health issues. This could eventually result in major changes in the relationship between doctor and patient. The **UK Foresight Programme**⁷ provides one vision of this future:

By 2020 [...] the first point of contact with health care will be through a 'virtual' cyber-physician (CP). Accessed through a TV screen, the CP system will replace other forms of triage such as the telephone and give access to information about professionals, hospitals and other aspects of health care. (OST, 2001, p. 18)

Changing patterns of information sharing and patient/doctor relationships will bring some fundamental changes to health organisations and the working relationships of health personnel. For instance, ICT systems are set to revolutionise information sharing between health professionals, e.g. through the development of seamless electronic patient records. It is widely anticipated that clinicians will have access to information and decision support at the point of care. This could occur by using a computer screen in offices and surgeries, or through a personal digital assistant (PDA) or mobile phone on wards and in other circumstances, including emergencies. Of course, changes in information-sharing patterns will bring different security concerns onto the health agenda. The security of health information is likely to be provided by a range of procedures and technologies, such as smart cards or biological identifiers.

Telematics is the use of ICT to solve any type of problem remotely. Telemedicine is the application of telematics to facilitate healthcare delivery, and is defined by the EU **Telemedicine Project**⁸ as 'the investigation, monitoring and management of patients, using systems which allow ready access to expert advice and to patient information, no matter where the patient or relevant information is located'. The major benefits of telemedicine applications are the improvements in the speed and cost of health services as well as an expected increase in the quality of patient care. Despite the high initial costs of investing in hardware and software, this should ensure considerable savings in the long term.

⁶ <http://www.patientsorganizations.org/>

⁷ <http://www.foresight.gov.uk/servlet/Controller/ver=1553/userid=2/>

⁸ <http://www.cee.hw.ac.uk/Databases/telemed.html>

Besides the obvious applications of telemedicine, there are also some interesting developments on the horizon. One of these is 'telesurgery', defined as remote surgery via telepresence and haptic (touch) feedback. In the near future, doctors will be able to perform and complete medical operations remotely from anywhere in the world with the help of high-speed data lines and advanced robotics. The basic infrastructure for this type of operation consists of multimedia systems, web-based video, audio systems and parts, network equipment, a network provider, remote monitoring devices, software components, and of course robots. The first major trans-Atlantic telesurgical operation has already been carried out. Doctors in the United States removed a gall bladder from a 68-year-old female patient in eastern France by remotely operating a surgical robot arm. With more than 14,000 kilometres (8,700 miles) between doctor and patient, the time delay between the surgeon's movements and the return video image displayed on screen was less than 200 milliseconds, thanks to high-speed fibre-optic technology.

Using ICT extensively means having busy information and data flow traffic. The management of all this data and information traffic requires the introduction of new actors into health organisations, such as health informatics specialists. These medical and/or non-medical personnel will possess particular skills in knowledge management. At the same time, research bodies and industry will need to prioritise the development of intelligent, active systems that will support decision making in a range of circumstances.

New medical technologies

The desire to cut health costs, extend life and increase quality of life is often cited as drivers for technology developments in health. In recent years and for the foreseeable future, genomics and the new biotechnologies have become important focus areas for health innovation, followed closely by nanotechnologies and robotics. Many believe that these new technologies could totally revolutionise healthcare, despite concerns about spiralling costs.

Genomics involves the identification of an organism's genes, understanding how the genes work, and devising ways to manipulate the genetic process for various purposes, including treating illness. As such, genomics is expected to open markets for diagnostic testing, preventive medicines, follow-up treatments and even support services such as lifestyle counselling.

However, many of the more exciting developments in the area are not expected to be routine until after 2015. There is perhaps more optimism about the immediate potential of pharmacogenetics. It is believed by most who work in this field that the earliest gains will come from the use of genetic information to predict the effectiveness and side effects of drug therapies. Hence developments in pharmacogenetics may be the first to deliver real therapeutic benefit. More generally, the potential for classifying disease by genotype rather than phenotype could lead to genetic diagnostics being widely used throughout clinical practice.

Taking a more pessimistic view, it is possible that the costs for such treatments, required to allow pharmaceutical companies to recoup research and development costs, would affect their use in some health care systems. However, this can be countered with the view that while costs may initially be higher, the treatments would be more effective and there would be less wastage, thereby leading to overall cost reductions.

As well as genomics, there is a wide body of research in the biotechnology area that could lead to profound changes in healthcare. Some of the technologies being developed include biomaterials and tissue generation, biosensors and bioinformatics. Biomaterials and tissue generation are potentially very significant. It is anticipated that those with heart disease may have the option of cardiac vessel regenerative tissue implants, thereby replacing clogged arteries without bypass surgery or angioplasty. But as PricewaterhouseCoopers warn, 'the coming biotech advances could be a well of blessings or a drain of future medical costs' (1999, p. 38). Effective preventive strategies could reduce demand but technological and other changes may result in the increased use of services. For example, the uncoupling of mortality

and morbidity seen in coronary heart disease and stroke is likely to result in multiple episodes of intense usage of healthcare services (OST, 2001, p. 10).

‘Nanomedicine’ is a further exciting new field that has the potential to revolutionise healthcare. It involves the monitoring, repair, construction and control of human biological systems at the molecular level, using engineered ‘nanodevices’ - almost like mini-submarines, with each ‘species’ of medical ‘nanorobot’ designed to accomplish a specific task (PricewaterhouseCoopers, 1999, p. 22).

All of these developments offer medicine real opportunities to improve clinical outcomes. But the essential question remains: can we really afford them?

Managing the spiralling costs of health and social services

When the UK National Health Service was founded in the 1940s, politicians and the medical profession believed that this service would become progressively cheaper to run as the national population became healthier. In fact, the reverse occurred. The growth in demand, which is projected to accelerate over the coming 10-20 years, has focused attention in all countries on ways of limiting expenditure without reducing the quality of services or their accessibility. Reform programmes have been introduced, aimed at increasing the efficiency of resource use and the cost-effectiveness of the care provided. These include:

- Improving the information available on the cost of treatment of different ailments to ensure that the cost factor is included in determining and rationalising healthcare services. One example is a new database recently established by the Ministry of Social Affairs in Belgium: this database contains medical and financial information on the use of services of various kinds across the country (the consumption and cost of drugs, the number and duration of hospital stays, etc.). This will enable comparative data to be grouped by 600 different types of pathology, encouraging hospitals and practitioners to examine their own costs in relation to others and to look for ways of reducing them (CEC, 2002, p. 42). Similar initiatives have been implemented in most Member States.
- Introducing market mechanisms as a means of increasing efficiency. Such measures include the clearer demarcation between supply and demand and the contractualisation of services.
- Taking direct action to reduce expenditure on pharmaceuticals, both by encouraging the use of generic drugs and by restricting or prohibiting the use of expensive branded pharmaceuticals (ibid, p. 43).
- Devolving responsibility to the regional and local levels and, in some cases, to individual hospitals or general practitioners. This shift to primary care focus is underpinned by a belief that health and social services need to be more responsive to local needs and that better coordination can be achieved between needs and resources at this micro-level.
- Increasing the development of home-based services to support older people in their own homes rather than through - often more expensive - institutionalised care (Comas-Herrera et al, 2003).

Some believe that these reforms alone are unlikely to solve the problems facing healthcare and social services. More radical solutions are needed, solutions that potentially threaten Member States’ commitment to ensuring the universal availability of a high level of health and social welfare. As PricewaterhouseCoopers state:

Many national healthcare systems are trying to define the core elements that will be covered by tax or social insurance funding. The struggle is making a distinction between basic healthcare needs that are collective and those needs that are an individual’s responsibility. (1999, p. 39)

If national healthcare systems or health insurance companies are unwilling to fund certain therapies, individuals will have to pay for these themselves. Clearly, not everyone will be able to meet these co-payment costs, so socio-economic inequalities could translate into health divides between the haves and have-nots. In fact, such polarisation is widely anticipated. For instance, the vast majority of experts answering the German Delphi study in 1998 think that a market-based system of healthcare will emerge. Nevertheless, they consider such a step to be tantamount to the introduction of a two-tiered system of medical care and thus to be socially regressive (Cuhls et al, 2002, p. 101). Such pressures lead PricewaterhouseCoopers to declare that 'a type of "passive privatisation" is oozing into countries that have prided themselves with the policy of universal health access' (1999, p. 26). Needless to say, any attempt to limit access to services is likely to prove very controversial. Yet it seems increasingly likely that the principle of universal access, which has traditionally underpinned the provision of health and social services in Europe, will be further undermined as time goes by.

And finally...

These trends and drivers will be further investigated in our next health and social services feature, where we will present a set of sectoral scenarios. Watch this space!

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