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Making the economic case for mental health in Europe

France: Health promotion for migrants

Intergovernmental relations in Italian health care

Health inequalities in the decentralised Spanish health care system

Migration of Flemish doctors to the Netherlands • Romania: Pharmaceutical pricing and reimbursement
Austria: Electronic health record development • Institutional and community care for older people in Turkey

COMMENT

A timely opportunity for Europe

The European Commission has just published its new Health Strategy '*Together for Health: A Strategic Approach for the EU 2008–2013*'. Building on current work, this Strategy aims to provide, for the first time, an overarching strategic framework spanning core issues in health, as well as in 'health in all policies' and global health issues.

The explicit inclusion of the promotion of mental, as well as physical, health is a timely reminder of the importance of looking at health holistically. Poor mental health affects more than 130 million Europeans at a cost to every European household of more than €2,000 per annum. Despite the high personal, social and economic costs too often mental health has been marginalised within public health policy.

In this issue of *Eurohealth* we report on the work of the Mental Health Economics European Network (MHEEN). With a wide ranging remit, MHEEN has been collating evidence to support the case for investment in the promotion of mental well-being and prevention of mental health problems. Findings suggest that investment in effective interventions in different setting and across different stages of the life course can be highly cost effective; it is also consistent with EU goals of increasing economic productivity and enhancing social inclusion.

Tackling health inequalities remains a key objective of EC policy and we feature several articles concerned with this theme. Marc Wluczka describes new mechanisms put in place in France to help promote the health of new migrants, while Cristina Hernández Quevedo looks at decentralisation in Spain and its implication for health inequalities. The financial and organisational relationships between central and regional government form the background to analysis by George France of attempts in Italy to eliminate marked variations in the financial solvency of health services across the country. The EU Health Strategy also highlights demographic change and ageing as an important concern; an example of the challenges now being confronted in Turkey is also featured.

The publication of the Health Strategy, with its myriad of goals to be achieved in partnership with Member States is welcome; monitoring mechanisms and hard targets are still needed to judge progress in implementation.

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Mental health and economics in Europe:
Findings from the MHEEN group

David McDaid, Martin Knapp, Helena Medeiros and the MHEEN group

Summary: Mental health has become an increasingly important issue both at national and European levels. Working across thirty two countries, the Mental Health Economics European Network has been undertaking comparative analysis grouped around a number of themes including organisational structures and service provision, employment and the health/social care interface. In this article we highlight some of the findings in respect of funding, look at how economic incentives can influence the balance between institutional and community based care, and consider the merits of the economic case for promoting mental health and wellbeing.

Keywords: Mental Health; Economics; Financing; Prevention; Balance of Care

Mental health and economics in Europe

Mental health has moved up the political agenda in many European countries in recent years, whether in terms of promoting the general mental well being of the population, or addressing the needs of people who have a mental illness. The European Commission has added its weight to this trend with publication of its widely discussed Green Paper in 2005,[1] while the World Health Organization brought together all 52 of Europe's health ministries earlier that same year to endorse an ambitious plan for the region.[2]

Common concerns

There are many common concerns across Europe. Among the most prevalent are: human rights abuses; the continued reliance in many countries on the old and discredited asylums; the difficulties of developing good community-based care to replace them; the perennial and controversial issue of compulsory treatment; the challenge of coordinating activity across health, social care, housing, criminal justice, employment and other systems; the search for effective treatments and support services; the question of how to prevent mental health problems arising in the first place; and the huge problems of stigma and discrimination.

None of these concerns is 'economic', but any actions taken to address them will have economic implications. Increasingly, therefore, politicians, managers and care professionals across Europe have been seeking economic evidence and insights to inform and support their decisions.

Demands for economics

What are they looking for? What are the 'demands' or needs for economics in the mental health field? Some needs relate to the costs – often following recognition that many mental health problems generate substantial and wide-ranging costs that fall on many agency budgets and also hit the pockets of individuals and families. Decision makers want to know if expenditure on treatment strategies might later be compensated by reductions in the future costs of inaction. New drugs invariably look more expensive than old drugs, and delivering psychological therapy to more people requires appointment of more staff, so questions are inevitably asked about whether such expenditure is 'worth it'. Decision makers also want to know whether spending more money in the mental health area represents a better investment in health improvement and quality of life enhancement than, say, spending the same amount on cancer services. In other words, they are interested in cost-effectiveness.

There are other demands for economic information – for example, on how best to pay for mental health services to ensure fair access, which is an especially challenging topic given that long-term mental illness can impoverish someone, leaving them unable to afford to pay for their own treatment. There is the related question of equity, and how to design resource allocation arrangements to support the most vulnerable people in society. Economic

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Box 1: Questions addressed in MHEEN Phase II

How are mental health systems **financed**, and how much **public expenditure** is committed to the area?

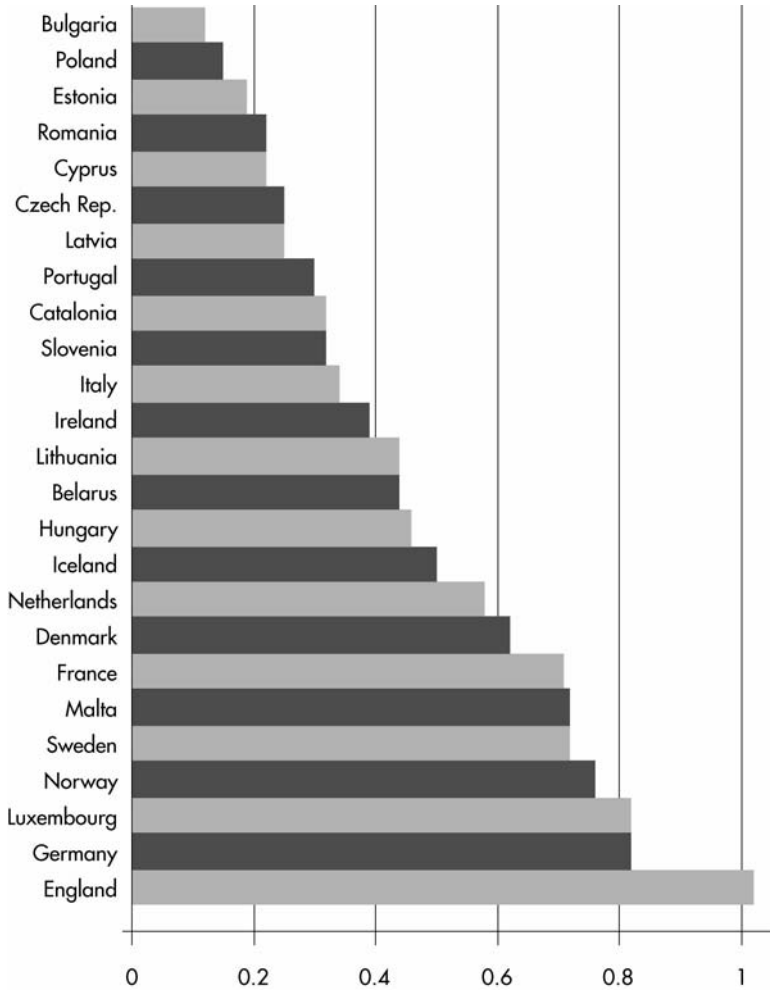
What are the barriers and incentives to improve mental health care, with particular focus on the **balance of care** (and especially the reliance on institutional models of care) and **employment**?

What mechanisms and strategies are in place for **mental health promotion** and to prevent the onset of mental health-related problems, and particularly what is known about the cost-effectiveness of such strategies?

Can the **European Service Mapping Schedule** be refined so as to assess mental health service utilisation and costs within small catchment areas?

Finally, is there a commitment to **build capacity** across Europe in mental health economics?

Figure 1: Mental health expenditure as a percentage of GDP (latest available year)



data can help to smooth the often-difficult process of agreeing joint action between different government departments or other bodies, given that mental health problems can have such wide-ranging impacts. Nowadays, there is better awareness of the interconnections between mental health problems, employment and social exclusion, and hence growing mutual interest among government ministries responsible for employment, social security and finance. Finally, there is the question of economic incentives and whether they can influence the behaviour of key individuals and organisations so as to encourage them to pay more attention to mental health needs.

Supplying the answers

These are just some of the questions posed by decision makers that have an economic flavour, but not many answers have been forthcoming. It was against this background that the Mental Health Economics European Network (MHEEN), established in 2002 with the support of the European Commission, has been collating information, initially across seventeen, but now thirty-two European countries. Jointly coordinated by the Personal Social Services Research Unit (www.pssru.ac.uk) at the London School of Economics and the Brussels-based non-governmental organisation, Mental Health Europe, the aim has been to develop a network of representatives, at least one from each country, with expertise and/or experience of health economics and with personal work or commitment to the economics of mental health (see www.mheen.org for MHEEN partners).

Activities in the first phase of work were grouped around a number of themes: financing; expenditure and costs; provision, services and workforce; employment; and the capacity for economic evaluation. In the second phase (2005–2007), and following expansion to a larger group of countries, the overarching aim remained the same, but the specific topics changed slightly (See Box 1). In this article we highlight some of the findings in respect of funding for mental health, look at how economic incentives can influence the balance between institutional and community based care and consider the merits of the economic case for promoting mental health and wellbeing (A series of policy briefs prepared by MHEEN dealing with these and other aspects of MHEEN work are available at www.mheen.org).

I. What public expenditure commitment is made to mental health?

Do services and initiatives that aim to meet mental health needs get their fair share of available health system funding? When we look across the countries of the Network, mental health care generally looks to be considerably under-funded. Despite the high prevalence, substantial contribution to the global burden of disability, strong association between deprivation and mental illness, and the growing body of cost-effectiveness evidence, the proportion of total public expenditure allocated to

mental health care is often modest. Only four countries have committed as much as 0.75 of 1% of Gross Domestic Product (See Figure 1), yet poor mental health may cost national economies four times this amount. We do, however, need to be a little cautious about these figures because it is difficult to make robust comparisons between countries when accounting procedures differ, and particularly when the boundaries around what is a 'health service' can be drawn in different ways.

This last point has added significance because it has been quite common across Europe for the boundaries between health, social care and other service systems to be fluid.[3] This has been partly a response to the shifting balance of care away from institutions and towards systems that are more community-focused. Moving the locus of care to the community creates many new and welcome opportunities, but also raises challenges, including the difficulties of coordinating services across organisational and budgetary boundaries, and different eligibility criteria for support and for exemptions from payment.

How are mental health services funded?

The routes for funding mental health care, at first glance, do not appear to differ very much between countries. Funding relies largely on taxation or social insurance, respecting long-held principles of solidarity and universality. But this does not necessarily mean that such systems operate equitably. Systems where there is high reliance on out-of-pocket payments at the point of need (such as in Portugal) are likely to be inequitable. Out-of-pocket payments may be particularly inappropriate for people with mental health problems, who may already be unwilling to come into contact with services because of fears of being stigmatised, and who are already disadvantaged economically by the consequences of chronic illness.

Supplemental voluntary insurance (often called private insurance) continues to play a minimal role in providing coverage for mental health services in most western European countries, but its role is more significant in eastern Europe. Evidence from the US, where the private health insurance market is most well developed, illustrates the difficulty that mental health can have in achieving parity with physical health, leading to unequal access to insurance coverage for mental health treatment. Of course, as responsibilities shift out of the health system and into the social care system, for example, financing difficulties might arise because there might not be the same commitment to the principles of universality and solidarity; means testing is more common, for instance.

Resource allocation

With few exceptions, across MHEEN countries that employ tax-based financing systems annual budgets tend to be determined through some combination of historical precedent and political preference. Few report having an allocation mechanism objectively based on measures of population health need. One consequence is that resources are unlikely to be well targeted to areas where they have the greatest chance of being effective or where they can tackle inequities. Even when budgets are supposedly earmarked for mental health services, there are few safeguards in some countries to ensure that resources are not actually spent on non-mental health services.

One possible way to improve the allocation of resources is through the use of tariffs linked to specific procedures or needs, such as diagnosis-related groups (DRGs). These tariffs reimburse providers of mental health services – in both social insurance and tax-dominated countries – on the basis of some pre-set amount. But using DRGs has generated some difficulties: DRG tariffs have not always taken full account of the costs associated with chronic mental health problems and their use remains limited.

II. Shifting the balance of care from hospitals to the community

One of the greatest barriers to achieving social inclusion of people with mental health problems and improving the quality of care in a number of countries is the continued use of institutional care, as exemplified by the old psychiatric asylums, dispensaries and 'social care homes' of many countries in central and Eastern Europe.

It is important to distinguish between the large, long-stay, social care homes in some of these countries, where provision is of a low standard, and human rights are often overlooked, and the social care facilities that accommodate many thousands of people in countries such as the UK, where standards are much higher. There are well-documented accounts of individuals admitted to institutions being kept in 'caged beds' or solitary confinement, experiencing physical or sexual abuse, or electro-convulsive therapy without anaesthesia or muscle relaxants. While these are undoubtedly exceptions, such practices are common enough to warrant urgent action.

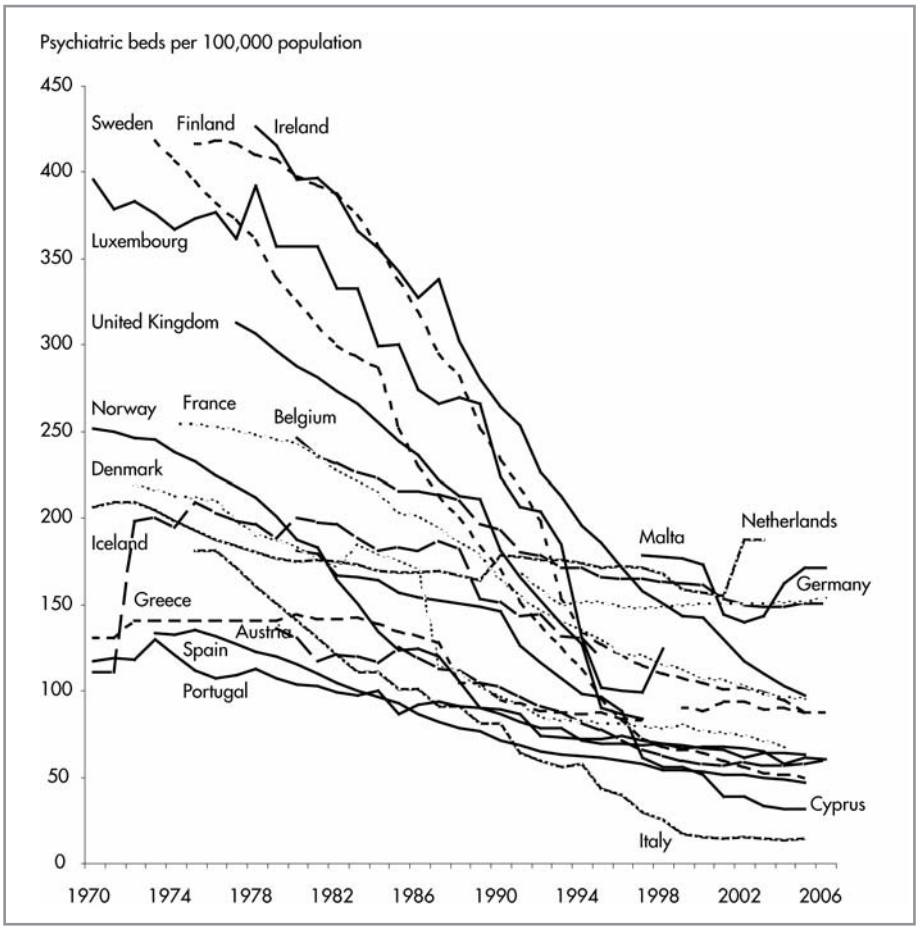
Charting the exact balance of mental health care across thirty two countries was obviously beyond the resources of MHEEN, but we were able to look at a number of important features. First, we asked Network partners to describe the general direction of movement, if indeed there had been any, in the provision of institution-based services. For example, we asked about increases in provision or admission rates. Second, we were interested in the economic barriers to changes in the balance of care, and in the economic incentives that had been found to support movement away from reliance on institutional services.

What is clear are that shifts in the balance of care away from institutions towards community based support (where appropriate), vary markedly across Europe according to resources, financial incentives and national traditions. In western Europe, over a thirty-five year period, bed numbers have fallen sharply (Figure 2). Individuals have been transferred to other settings such as general hospitals or various forms of community-based supported living establishment. In central and eastern Europe the picture is more opaque – there appears to be significant progress in the Baltic States in particular; but little change in countries such as Romania, Slovakia and Slovenia (see Figure 3). These data may present a better picture than the situation merits as they do not take into account the number of people transferred to the large, isolated and poor quality social care homes operated outside the health system.

The MHEEN group identified a number of barriers to change. Funding may be locked in long stay institutions, so service providers may actually have incentives to maintain a high rate of occupancy in order to ensure that their budgets are not ratcheted down. Moreover, isolated large institutions may often be a major source of jobs in a locality, meaning that resistance to any reform may be substantial. The legal guardians of people with mental health problems may also have perverse incentives to place their relatives in a long stay institutions, as they many be able to retain the disability pensions of these individuals.

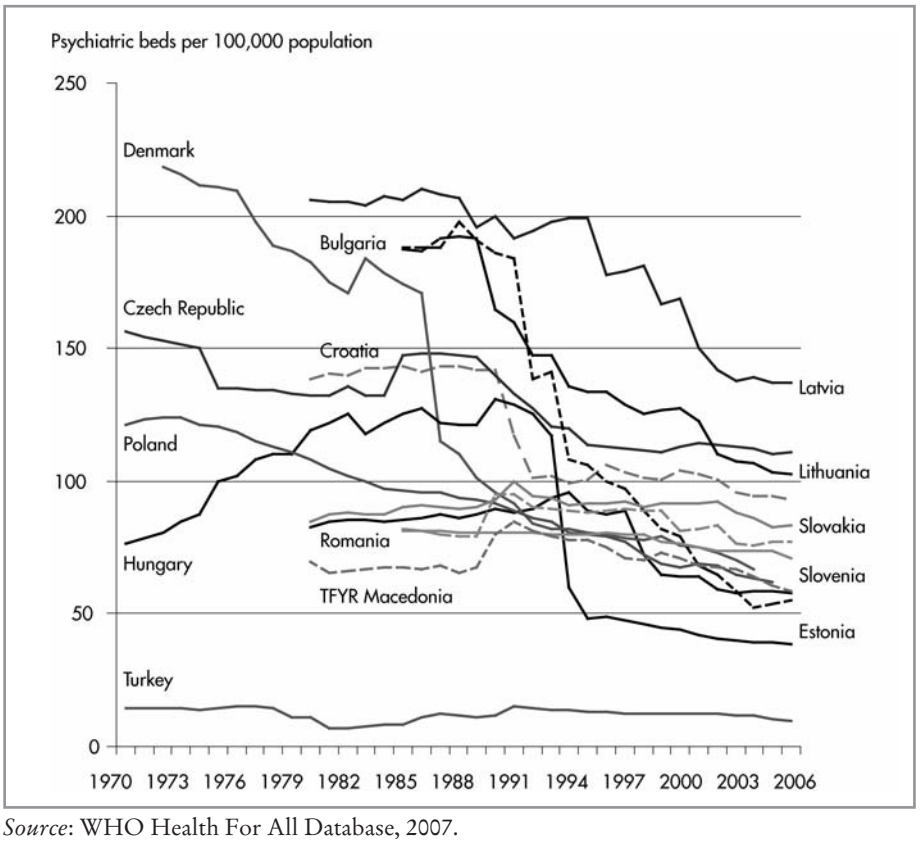
There also remains a shortfall in the provision of community services in many countries, particularly in southern (where

Figure 2: Trends in availability of psychiatric beds in western Europe



Source: WHO Health For All Database, 2007.

Figure 3: Trends in availability of psychiatric beds in eastern Europe



Source: WHO Health For All Database, 2007.

family support is significant), central and eastern Europe. As countries continue to rebalance care they must be aware of the risks of closing beds before adequate community care is developed and funded. For a period of time there needs to be parallel funding of community and institution based services; in situations where resources are scarce this additional investment may be difficult to make. Thus there is a constant concern that bed reductions always precede the development of comprehensive and well-developed community-based services, leaving both hospitals and community services under-resourced. This can reduce public confidence in the appropriateness of community based care.

Flexible funding arrangements are one way of overcoming some of these barriers. For instance, joint budgeting arrangements, for example, between health, social care and employment departments in Sweden have been used to tackle the problem of fragmented funding, while in Flanders money notionally intended for the provision of beds can actually be used to foster independent living. Mergers between institutions and ambulatory services in the Netherlands were an important first step in rebalancing care.[4] Effective planning for the alternative use of buildings, as well as retraining and economic regeneration of local communities dependent on institutions for jobs, can also help promote change. Another important development historically was increased access to social welfare benefits, giving individuals a safety net for supporting themselves in the community. More recently a growing number of countries in western Europe have begun introducing individual budgets, whereby people with mental health problems receive a budget which they can freely spend on services that best meet their needs.

III. The economic case for promotion and prevention

MHEEN has not just focused on those with mental health problems, but has examined many issues from a public health perspective. There are many reasons for promoting positive mental health and for seeking to prevent the emergence of problems in the first place. At the core of all of this is a desire to improve the quality of life of a population. But decision makers are also very aware of the costs of not acting appropriately or early enough.

For example, the total cost of depression

in Sweden in 2005 was estimated at €3.5 billion[5] while the cost of schizophrenia in England in the same year was estimated at €10.4 billion.[6] These cost estimates are indicative of a familiar pattern across Europe: the contribution of many different budgets. For instance, the total economic impact of depression in Sweden is absolutely dwarfed by the cost of lost productivity because so many people with depression experience absences from work or long-term unemployment. Similarly, the costs of schizophrenia in England fall to a host of budgets, and not just to the health care system. There have also been studies which have pointed to the average cost of a completed suicide: €2.04 million in Ireland and €1.88 million in Scotland.[7] Each of these, and many other examples could be given, is a substantial amount. Again the costs of a completed suicide are not just for health or police or other agencies, but include lost productivity and the various intangible costs, including the pain and grief experienced by relatives and the lost opportunity for individuals who complete suicide to have future opportunities for life experiences.

While even the most optimistic of advocates would never imagine that all instances of depression could be prevented, or all psychoses avoided, or all suicides averted, it is surely possible for European societies to prevent some of these distressing and often devastating events occurring? Potentially this might be a highly cost effective use of resources. MHEEN partners have thus been trawling through electronic databases and the 'grey' literature of policy and advocacy bodies, as well as corporate documents, to find out just what is known about the cost-effectiveness of such initiatives. This has complemented a systematic literature review undertaken by MHEEN ranging over many areas, including schools, workplaces, primary health care settings and the community.[8]

What do we know?

It remains the case that economic analysis is rare, but its use is increasing and some examples are given here. Perhaps most strikingly, most of this evidence focuses on preventive actions rather than on measures to improve mental well-being. This reflects current challenges being grappled with in Europe on how to accurately measure well-being.

The area where most work is available relates to children. This builds on the accumulation of evidence that behavioural and emotional problems in childhood, if not adequately addressed by mental health, education and social work services, can have enormous adverse consequences in adulthood. For instance, analyses of group based parenting interventions suggest that, even if only very modest quality of life benefits can be gained, these interventions have the potential to be highly cost effective.[9] The majority of this work is though from the US, where a range of very long-term economic benefits from a variety of intervention programmes for children and young people have been identified.[10] The extent to which these interventions can be adapted to differing contexts in Europe still needs careful consideration.

"suicide prevention strategies potentially are highly cost effective"

Remarkably, despite considerable attention given to suicide in policy discussions across Europe, evidence on the cost effectiveness of suicide prevention strategies is sparse. Yet potentially this may be highly cost effective: work in Scotland suggests that if just 1% of suicides could be avoided then the national programme would actually be cost saving.[7] Looking at training interventions, economic analysis of STORM (Skills-based Training on Risk Management) in England indicated that a 2.5% decrease in the suicide rate would generate a cost per life year saved of just €5,500, a value considered to be highly cost effective.[11] The use of taxation instruments to influence behaviours, for example, to reduce the over-consumption of alcohol, and subsequent alcohol related addictive behaviours, can also be much more cost effective than other alcohol control policies.

IV. Employment

Employment is a fundamental component of, or contributor to quality of life, the main source of income for most people, commonly a major influence on someone's social network, and also a defining feature of social status. The interconnections between mental health problems and employment are many and various. As well as the link with individual well-being, employment is a major contributor to national and European productivity and competitiveness, and obviously also has implications for the sustainability of social welfare systems. Total disability benefit payments in England, Scotland and Wales alone in 2007 amounted to €3.9 billion, with the largest contribution (40%) attributed to 'mental and behavioural disorders'.

Many national governments have now turned their attention to the employment difficulties experienced by people with common mental health problems, including stress and depression, and also encouraging greater awareness among employers as to their workplace responsibilities for promoting better mental well-being and reducing worker stress. Evidence on the effectiveness of various workplace based programmes, mental health problems is growing. There may well be substantial scope for economic benefits, such as increased productivity and a reduced need to pay disability benefits, through investment in the workplace. But there are major caveats on what we know: most evidence again comes from the US and is often generated by companies, and not subject to rigorous peer-review. Nevertheless, there are some tantalisingly interesting insights.

For example, evaluation of London Underground's stress reduction programme suggests that in its first two years there was a reduction in absenteeism costs of €705,000. This is eight times greater than the cost of the scheme. In addition, improved productivity and some positive healthy lifestyle changes were observed.[12] One stress management programme in a Belgian pharmaceutical company achieved a reduction in absenteeism of just 1%, but still avoided costs of €600,000 because the economic impact of stress-related absenteeism was so substantial.[13]

Mental health promoting interventions can also be cost effective in helping those who are out of work and thus at greater risk of developing mental health problems. One US programme, designed to help individuals take more control when seeking employment and cope with difficulties and disappointments, both increased reemployment and generated a positive return on investment.[14] It has subsequently been implemented, with some success, elsewhere including Finland, the Netherlands and Ireland.

While the economic case is encouraging, there are a number of key challenges to

meet in strengthening the evidence base on workplace health promotion. Evaluation in the workplace is clearly a sensitive issue; both employers and employees may be reluctant to participate. Caution must also be exercised over the results of evaluations: interventions reported to have significant net benefits may be produced by organisations that stand to gain commercially from their use.

"the highest levels of workplace stress may well appear in public sector organisations"

Recognition of the economic impact of poor workplace mental health at national and EU levels does however provide an opportunity for action. Policy makers may wish to carefully consider providing financial support for the evaluation of workplace based mental health interventions. Already there are some positive signs: a number of ongoing and planned economic evaluations have already been identified by MHEEN. One pragmatic approach may be to retrospectively add an economic dimension to existing studies of the effectiveness of interventions. More partnership work between employers in the private and public sectors is also well merited; indeed the highest levels of workplace stress may well appear in public sector organisations.

Much of the work to date in this area has focused on large, often multi-national corporations. Demonstrating the economic case may also help persuade policy makers of the case for providing financial incentives to encourage small and medium sized enterprises, which otherwise might not have the resource, to invest in effective workplace mental health promoting interventions.

MHEEN: the way ahead

The personal, social and economic consequences of poor mental health can be profound: examples of the fundamental abuse of human rights in poor quality long stay institutions with EU Member States can still be found with regularity. All Member States of the WHO European Region, as well as the European Commission, in 2005 endorsed an action plan setting out a number of steps to be taken to meet these challenges. Transforming good intentions into actions on the ground is far from easy; activities like those undertaken by MHEEN can help strengthen the economic case for action and identify economic levers and incentives to promote change.

MHEEN members have also been active in raising awareness of the relevance of economics within mental health discourse in national, international and supra-national contexts and have helped to develop local capacity and interest in economics and mental health. Because mental health has impacts on many different non-health sectors, a continuing challenge for MHEEN and others will be to engage with these sectors and provide economic evidence that encompasses both inputs from and impacts on the social care, housing, education employment and criminal justice systems.

In particular, a major gap in knowledge that MHEEN has addressed is the economic case for investment in promotion and prevention activities; this is vital to the better incorporation of mental health within public health policy. While the work of MHEEN indicates that this evidence is still modest, where evaluations have taken place the economic case often is very strong. To increase this knowledge one priority should be to incorporate economics into more prospective evaluations, but another complementary approach, which MHEEN members are taking forward, will be to retrospectively look at the economic implications of interventions already demonstrated to be effective.

References

1. Commission of the European Communities. *Improving the mental health of the population: Towards a strategy on mental health for the European Union*. Green Paper. Brussels: Health and Consumer Protection Directorate, European Commission, 2005.

2. World Health Organization. Mental Health Action Plan for Europe. Facing the Challenges, Building Solutions. Copenhagen: World Health Organization, 2005.

3. McDaid D, Oliveira M, Jurczak K, Knapp M and the MHEEN Group. Moving beyond the mental health care system: an exploration of the interfaces between health and non-health sectors *Journal of Mental Health* 200716(2);181–94.

4. Ravelli DP. Deinstitutionalisation of mental health care in the Netherlands: towards an integrative approach. *International Journal of Integrated Care* 2006;6:1–11.

5. Sobocki P, Lekander I, Borgström F, Ström O, Runeson B. The economic burden of depression in Sweden from 1997 to 2005. *European Psychiatry* 2007;22(3):146–52.

6. Mangalore R, Knapp M. Cost of schizophrenia in England. *Journal of Mental Health Policy and Economics* 2007;10(1):23–41.

7. McDaid D, Halliday E, Mackenzie M, et al. Issues in the economic evaluation of suicide prevention strategies: practical and methodological challenges. London: Personal Social Services Research Unit, London School of Economics, Discussion Paper 2407, 2007.

8. Zechmeister I, Kilian R, McDaid D. Is it worth investing in mental health promotion and prevention of mental illness? A systematic review of the evidence from economic evaluations. *BMC Public Health* 2007 (forthcoming).

9. Dretzke J, Frew E, Davenport C, et al. The effectiveness and cost-effectiveness of parent training/education programmes for the treatment of conduct disorder, including oppositional defiant disorder, in children. *Health Technology Assessment* 2005;9:50.

10. Aos S, Lieb R, Mayfield J, Miller M, Pennucci A. *Benefits and Costs of Early Prevention Programmes for Youth*. Olympia: Washington State Institute for Public Policy, 2004.

11. Appleby L, Morriss R, Gask L, et al. An educational intervention for front-line health professionals in the assessment and management of suicidal patients (The STORM Project). *Psychological Medicine* 2000;30(4):805–12.

12. Business in the Community. London Underground. Stress Reduction Programme. London: BITC, 2005. Retrieved September 26, 2007 from http://www.bitc.org.uk/resources/case_studies/afe_hw_05_londonu.html

13. Poelmans S, Compernolle T, De Neve H, Buelens M, Rombouts J. Belgium: A pharmaceutical company. In: M Kompier and CL Cooper (eds). *Preventing Stress, Improving Productivity: European Case Studies in the Workplace*, London: Routledge, 1999, pp.121–48.

14. Vinokur A D, van Ryn M, Gramlich E, Price RH. Long-term follow-up and benefit-cost analysis of the JOBS program: a preventive intervention for the unemployed. *Journal of Applied Psychology* 1991;76(2):213–19.

From disease control to health promotion for migrants in France

Marc Wluczka

Summary: Every year the Public Health Department of the French National Agency for the Reception of Foreigners and Migration (Agence Nationale de l'accueil des Etrangers et des Migrations – ANAEM) conducts a survey of medical examinations given to new immigrants. Obesity, type II diabetes, cardiovascular disease, visual impairments and tuberculosis continue to be highly prevalent. Excess poor health in women is found in migrants from every continent except the Americas. Individuals in poor health, as well as those in high risk groups, have been appropriately referred on to health care services. While some conditions are difficult to identify, for example, mental health problems, nonetheless, these medical examinations have proved to be valuable both as a public health tool and as an aid to integration for first time migrants to France.

Keywords: Public health, Non-EU immigrants, France, Health Screening, Integration Policy

The organisation of medical examinations or checkups for first time non-EU immigrants is one of the key tasks of the Agence Nationale de l'accueil des étrangers et des Migrations (ANAEM). Originally, this examination had two purposes: the first was to carry out an evaluation of a migrant's capacity and ability to work, while the second focused on the prevention of global and personal health risks. There is now a third overarching concept: a decree on 11 January 2006 placed this medical examination within a public health context where promoting the health of migrants is the key aim. This evolution came about as a result of the establishment of ANAEM as a public service in 2005, bringing together the functions of the Office of International Migration and the Social Services Assistance for Emigrants association.

A comprehensive overview of migrants' health concerns

There are approximately 200,000 new immigrants to France every year. They can be broken down into four principle categories: workers, families, students and refugees. Since 2001, an epidemiological survey has been conducted to assess their health status.* This takes the form of a cross-sectional survey, with data collected from a random sample of clients who attended a medical checkup service on two different weeks of the year [one in May and one in November].

The survey provides detailed socio-demographic and medical information on approximately 8,000 individuals. This makes it possible to draw up a picture of the health of first time migrants and measure how the prevalence of diseases or risk factors have changed over time.

In 2006, 7,938 records were examined, of which 51% were men.[1] Individuals from the Maghreb (Morocco, Algeria, Tunisia, Libya and Egypt) made up the largest group in the study sample (Table 1).

1,339 medical records indicated the presence of at least one clearly identified disease, equivalent to a morbidity rate of 16.4%. This is the highest rate recorded since 2001 but may, in part, be due to improvements in data collection. 1,555 different diseases were identified (12.2%

Table 1: Gender and geographical distribution of 2006 survey sample

Geographical Origin	Men	%	Women	%
Europe	441	10.9	486	12.6
Asia	746	18.3	912	23.6
Sub-Saharan Africa	764	18.7	749	19.4
Maghreb	1,692	41.5	1,114	28.9
Americas	409	10	527	13.5
Others	24	0.6	44	1.1
Total	**4,076**		**3,832**	

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* Available on the French public health database: www.bdsp.tm.fr

were diagnosed as having two diseases while a further 2.5% had more than two co-morbid conditions). Excess female morbidity was found in migrants from all continents except the Americas.

By far the most frequent disease identified was malaria (498 cases), although this was almost entirely from migrants from sub-Saharan Africa. Thyroid diseases were also surprisingly numerous. The analysis also indicates that non-specific diseases, for example, dermatological, ear-nose-throat or those of the digestive tract, are also frequent and deserve more thorough analysis, in particular parasitic disease and the effects of the stresses of immigration.

Targeted continuous monitoring

The 2006 report justified the practice of monitoring certain targeted conditions such as type II diabetes. In 2003, the high frequency of obesity persuaded the authorities to make the monitoring of type II diabetes compulsory. This is carried out on the basis of age (>45) and Body Mass Index (BMI) (> 29). 551 individuals (6.9%) had a BMI greater than 29 and were considered obese. It is particularly high among women, especially those from sub-Saharan Africa. It is estimated that at the current rate of medical examinations, more than 6,500 cases of diabetes in individuals previously not aware that they had the condition would be identified. It also highlights nearly 60,000 people who are at risk of developing diabetes.[2]

Other diseases are also linked to the same risk factors, for example, arterial hypertension and cardiovascular diseases. As a result, preventive actions are targeted at those identified as being at greatest risk by the survey: sub-Saharan African women between 19 and 40 years of age.

Monitoring the prevalence of visual impairments is more problematic, particularly if individuals are illiterate; it can require much time and the use of specialised hardware. However, by identifying visual impairments, it is often possible to detect congenital visual disabilities which are linked to limited pre-natal care in low income countries.

One limitation remains the lack of adaptable tools or techniques to identify mental health problems. This undoubtedly leads to an underestimation of the prevalence of these problems.

In the future, other conditions that are highly prevalent in sub-Saharan and Caribbean populations, including sickle-cell disease, will be tracked, following an evaluation of specific tools planned for this year.[3]

Table 2: Referrals from 2006 study sample

Referral status	Number	Percentage
No referral	4,374	55.1
Vaccination centre	2,153	27.1
General Practitioner	1,041	13.1
Independent specialist	288	3.6
Public dispensary	57	0.7
Hospital	25	0.3

Screening for tuberculosis also continues to be a major issue. Quite apart from the impact on the individuals affected, the ANAEM medical examination plays a key strategic role in tuberculosis screening owing to its high degree of contact with new migrant populations: it is the mandatory point of transit and dispersal for some 200,000 of these most vulnerable individuals every year.

Chest X-ray is the most effective screening method. It is carried out prior to, or during, the medical examination. Sixty cases were identified leading to an estimated prevalence rate in the study population of 755 per 100,000. The distribution of tuberculosis cases by country of origin is in line with previous studies. Sub-Saharan Africa dominates (though only 19.1% of the study population compared with 28.3% worldwide) along with the Maghreb (35.3% of the study population, 28.3% worldwide). 20% of cases are found in Asian migrants, 10% in those from the Americas, similar to their proportion of the study sample, while Europeans accounted for 6.7% whilst making up 11.7% of the study population. Most cases of tuberculosis are found in the 30–39 age-group (19 cases), followed by the 20–29 age-group (15 cases).

Of the 1,594 women of childbearing age (15–50) 281 (15%) were pregnant, of these 44.8% were from the Maghreb and 23.3% from sub-Saharan Africa. Forty-eight cases of disability were identified, a prevalence rate of 0.6% in the study population. Thirty-three of these forty-eight cases (68.75%) were from the Maghreb and sub-Saharan African countries. In contrast to the situation seen in France, there were high rates of sensory disability (16 cases) and motor disability (18 cases). Despite strong under-reporting, alcoholism was observed in 2.5% of individuals, while 18.5% were smokers.

Referrals following medical examination

Over the past six years, there has been a shift from a concept of 'control' to one of 'prevention'. This has been accompanied by an immense effort to form partnerships with different health sectors, whether in the field of treatment or prevention, delivered by public, private or charitable organisations, or linked to general practice. As part of this, a key objective of these medical examinations is to refer individuals requiring further medical assistance to appropriate health care services. Improvements in the health of migrants as a result of these referrals demonstrate the value of this medical screening process. The medical examinations at ANAEM reception centres also provide a unique opportunity for confidential dialogue, which can reveal social problems and lead to referrals to social services for help and support.

In total 3,564 (45%) of the 2006 study sample were referred for further treatment. (Table 2). It should be borne in mind however, that referrals were not made solely on the grounds of identifiable disease (only 16.4% of sample), but on the basis of identified risk factors (positive diabetes test, obesity or smoking) or the need for observation (pregnancy, newborns). These also included 2,302 referrals for compulsory combined diphtheria/tetanus/poliomyelitis vaccination when vaccination status was unknown.

Most individuals identified as having a disease were referred to general practitioners or independent specialists, while the sixty cases of tuberculosis were sent to public dispensaries, hospitals or medical specialists (chest and tuberculosis specialists). Another finding from this analysis therefore, is that the medical

examination appears to result in appropriate referrals to other services when required.

The work of ANAEM is complemented by that undertaken within accommodation centres for asylum applicants that are run by CADA under ANAEM supervision.[4] Here again, epidemiological investigations are undertaken. Monitoring procedures, like those used for type II diabetes, allow immigrants to assume personal responsibility for their own health when medical conditions are at a less advanced stage. Results can still be improved and constitute good practice examples for other vulnerable populations.

Obligations and benefits

Since 2005 each accommodation service of ANAEM (23 in France) has also proposed a 'contract of accommodation and integration' (CAI) to migrants coming for family or long-term work reasons, or who are refugees. An evaluation of their needs in terms of social services, knowledge of French, and adhesion to France's republican values is provided at the same time as the medical evaluation. Then they are given the CAI. It places an obligation on them towards the French state, while ensuring access to health and social services, French language lessons, and information about the civic basis of the republic.*

ANAEM's public health activity has undergone a true 'silent revolution' during the last six years. It has become instrumental in relaying, emphasising and implementing public health policies. It has engendered a culture of partnership extending beyond the ANAEM medical departments to administrative and social departments. It has successfully promoted the primary objectives of ANAEM in relation to the integration of migrants in France.

* Knowledge of the 'republican values' (*valeurs républicaines*) has been regarded as part of French national identity and is referred in the most recent laws dedicated to immigration and integration. Non-EU legal migrants are requested to become familiar with them, candidates for French nationality are required to accept them.

References

1. Wluczka M, Debska E. *The Health of First Generation Migrants in 2006*. Paris: Agence nationale de l'accueil des étrangers and des migrations, 2006. Available at http://www.anaem.fr/IMG/pdf/FIRST_GENERATION_MIGRANTS_HEALTH_TEXT.pdf

2. Wluczka M, Haddou H, Farozi A-M. *Contribution to Knowledge of the Oral and Dental Health of First-generation Migrants*. Paris: Agence nationale de l'accueil des étrangers and des migrations, 2005. Available at http://www.anaem.fr/IMG/pdf/Study_about_dental_health.pdf

3. Wluczka M. Sickle cell disease. *Epidemiological Elements Based on a Sample Population*. Paris: Agence nationale de l'accueil des étrangers and des migrations, 2003. Available at http://www.anaem.fr/IMG/pdf/sickle_celle_disease_register_part_1.pdf and http://www.anaem.fr/IMG/pdf/sickle_celle_disease_register_part_2.pdf

4. Debska E, Wluczka M. *Health of Asylum-seekers and Refugees Housed in Accommodation Centres in 2004, 2005 & 2006*. Paris: Agence nationale de l'accueil des étrangers and des migrations, 2006.

Health inequalities in the decentralised Spanish health care system

Cristina Hernández Quevedo

Summary: Despite the optimistic health outcomes that the Spanish population enjoy, there are still disparities in health between different socioeconomic groups in the different Autonomous Communities. Given the process of decentralisation in the Spanish health care system and the lack of a national programme to reduce inequalities in health, initiatives at regional level are particularly relevant. However, not all regions include this target in their health plans, with the exception of the Basque Country. The balance between diversity at regional level and social cohesion remains a challenge in the Spanish health care system.

Keywords: Socioeconomic Inequalities, Health status, Health Plans, Spain, Decentralisation

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As the European Union continues to expand, disparities in the health of the European population, both within and between countries, are increasingly a cause for concern. Several studies quantifying health inequalities at the European level have shown that they are related to socioeconomic factors such as education, income and job status.[1] Spain is no exception. The Spanish health care system is decentralised, with health being the responsibility of the seventeen Autonomous Communities (ACs) that make up the country. However, devolution has not been

homogenous as health care responsibilities were transferred at different rates to all the ACs. This has negatively affected the principal objective to guarantee the system's equity and quality.

Organisation and performance of the Spanish health care system

The Spanish health care system is publicly funded and has a regional organisational structure resulting from a process of devolution. Population coverage under the Spanish National Health System (NHS) is almost universal (99.5%), including low-income populations, immigrant adults and children, hence providing a benefits package to all inhabitants independently of their ability to pay. It is a health system financed mainly by general taxation, which is intended to favour financial sustainability.[2]

The central government is responsible for strengthening coordination and cooperation in the health sector, guaranteeing the quality of all services and equity in access to health care throughout the national territory. In particular, the Spanish Ministry of Health assumes responsibility for general coordination and basic health legislation, foreign health, international relations, undergraduate and postgraduate education, together with research and high-level inspection.

At the regional level, the seventeen ACs have the power to establish their own health plans and to organise their own health services. These competencies were transferred over the past twenty years, although this process did not take place simultaneously. While several regions obtained responsibility for health many years ago (Catalonia in 1981, Andalucía in 1984, Basque Country and Valencia in 1988, Galicia and Navarra in 1991 and the Canaries in 1994), the devolution of health care responsibilities nationwide was only completed in 2002.

To promote the cohesion of the NHS, the Inter-territorial Council of the NHS was created in 1987, consisting of health representatives from central and regional governments. It is defined as an institution facilitating the permanent coordination, cooperation, communication and exchange of information on health care services across the ACs and with the state administration, thus helping to guarantee the rights of citizens across all of Spain.

In terms of the performance of the Spanish health care system, the international ranking varies according to the source considered. The World Health Report 2000, which focused on health systems performance, ranked the Spanish health care system sixth in the world. However, this result has been challenged. Recently, a report by Health Consumer Powerhouse, a private consultancy collecting consumer information on health care at EU level, ranked the Spanish health care system fourteenth among twenty-nine countries studied.[3] Although Spain was three places up compared to its 2006 ranking, waiting lists and the lack of information for patients were still considered weak points in this report.

This classification has already been criticised by the Spanish government which has argued that the focus on consumer information does not permit a fair evaluation of the universality of the Spanish system. Furthermore, the ranking is not in line with others such as the European Union Barometer, where Spain occupies seventh place. Nonetheless, despite the different rankings reported, there is a common consensus that waiting lists and waiting times, despite the efforts to tackle them made to date, remain important policy issues in Spain.

Spanish health outcomes in the European context

As with other high income countries, Spain has experienced a significant improvement in health during the last twenty years. According to recent statistics provided by the Instituto Nacional de Estadística (INE – Spanish National Institute of Statistics), life expectancy at birth increased between 1995 to 2005 by more than two years and now is 80.23 years. Furthermore, mortality data in Spain reflect a decrease both in mortality rates and in the probability of death within each age group.

According to Eurostat, life expectancy at birth in Spain ranks ninth in Europe. Spanish female life expectancy is second only to that in France. However, life expectancy for men from Sweden, Ireland, Holland, Italy and the United Kingdom is higher than that observed in Spain. These generally optimistic figures on life expectancy at birth and mortality rates in Spain are linked to the increase in the number of older people; these now account for approximately 15% of the population. Furthermore, it is projected that by 2010 40% of the Spanish population will be more sixty years of age.

Variability in life expectancy can be found at AC level, with the highest figures found in Navarra (81.51 years), Madrid (81.39), Castilla-León (81.28) and La Rioja (81.18), while the autonomous city of Ceuta (78.62), Andalucía (78.83) and the Canaries (79.16) have the lowest rates.[4] There are also variations in how individuals perceive their health. Citizens from northern ACs, including La Rioja, Aragón, Navarra and Cantabria, are the most satisfied with their health, while those from the south of Spain, including the Canaries and Extremadura report the worst levels of perceived health.

Socioeconomic inequalities in health within Spain

Regional and gender-based health inequalities persist in Spain, as in most other European countries. By age group, inequalities in health increase with age until age 45–54; after 64 years of age they tend to decrease. Furthermore, studies have shown that these inequalities in health are related to socioeconomic factors. The prevalence of chronic illness and disability is greater among those at the bottom of the income distribution. Inequalities in self-assessed health (SAH) status between social classes have been reported, as well as education-related inequalities in SAH and chronic diseases.

These inequalities also apply to other health outcomes such as obesity and smoking. The socioeconomic inequalities in the prevalence of obesity are largely explained by education and demographic characteristics. Education and income characteristics have been found to be strong predictors of smoking. These socioeconomic differences in smoking behaviour in turn influence inequality in lung cancer and total mortality.

According to the 2003 National Health Survey, most Spanish ACs have significant differences in self-assessed health status by social class. In the Canaries and Galicia, 40% of men and 50% of women from the working class have the highest levels of bad health, while in contrast Aragón and La Rioja have very small differences according to social class.[5] Moreover, there is evidence to suggest that those ACs with the highest levels of income-related health inequality are also likely to display low levels in average health status. Using data from the Spanish National Health Survey for 2001, García and López observed that the Basque Country, Navarra and La Rioja had the highest levels of average health

status and present the lowest degree of income-related health inequality.[6] At the other extreme, Murcia's population reports one of the lowest levels of average health status and suffers the greatest degree of income-related health inequality, reinforced by the effects of education. Compared to the Basque Country, other ACs presenting high income-related health inequality include Madrid, the Balearic Islands and Catalonia.

Policies to reduce inequalities in health

The number of countries and international organisations acknowledging the need to reduce inequalities in health is increasing. Most of these countries follow the equity principles and values of the World Health Organization and as such are explicitly concerned with the socioeconomic dimension of health inequalities. However, there is considerable diversity in the public policy goals and targets that aim to address health inequalities across different European countries.

In Spain, there is relatively little evidence of national policies to tackle socioeconomic inequalities in health, but there are a few examples of important regional or local initiatives. The different Spanish ACs specify their health policies in regional health plans, including principles and values, objectives, strategies and interventions to achieve certain goals over a specific time period. Borrell and colleagues undertook a systematic review of the health plans of the different ACs in Spain, excluding Madrid, Asturias and Cantabria.[7] They found that the regional health plans tend to include a description of health areas by socioeconomic status (SES) rather than including specific policies to reduce inequalities in health by SES.

Exceptions include the health plans from the Basque Country and Extremadura, where descriptions of health by socioeconomic characteristics were made and the reduction of inequalities by SES were included in their key plan objectives. However, it was only in the Basque Country that specific policies linked to SES could be found. In particular, the Basque Country health plan adopted specific quantitative targets such as reducing social class differences in mortality from diseases of the circulatory system by 25% from 39% in 2002 to 30% by 2010. It also set a target to reduce social class differences in mortality from cardiovascular diseases by 25% from 45% in 2002 to 34% by 2010.[8] Elsewhere, while Galicia and the Canaries do not include a description of health status by SES, they do include some targets in respect of reducing inequalities in health by SES in their health plans.

In terms of regional inequalities, the central government is focussed on improving equity in access to the health care system. The current Minister of Health recently expressed an interest in guaranteeing geographical equity in access to the health care system, meaning an equivalent level of benefits for all citizens provided independently of the place they live. For this purpose, one of the objectives of the current Minister of Health is to strengthen the role of the Inter-territorial Council of the NHS in order to enhance territorial cohesion.

Some initiatives developed by the central government target particular health care services or segments of the Spanish population with the intention of improving health. For example, as access to dental care varies throughout Spain, one central government objective has been to address this issue head on and assure equity in access to dentists for all children. Recently, it announced that it will become mandatory for all Spanish children between seven and eight years of age to have access to dentists free of charge from 2008. These treatments will be financed equally by the Ministry of Health in Madrid and the ACs. Access will then be expanded over the ensuing five years, with the goal of coverage for all children between seven and fifteen years of age by 2012.

Final comments

Although there has been an increase in the understanding of socioeconomic inequalities in health within Spain in recent decades, this has not impacted sufficiently on the policy agenda. At regional level, little attention is paid to inequalities in health by socioeconomic status in AC health plans. Few ACs take them into account, but even then not all areas are covered. The importance given in the literature to the effect of socioeconomic factors on individual health appears to be in contradiction to the lack of reference to this issue in health plans elaborated at regional level. There is also a lack of a national strategy to tackle health inequalities related to socioeconomic factors such as education, job status or level of income.

Thus there appears to be more to do in reducing regional inequalities in health and improving coordination mechanisms between the central and regional levels, so as to link evidence to policymaking. These equity challenges for the NHS should be addressed within the context of the broader goal of achieving a balance between diversity and social cohesion within the country.

References

1. Hernández-Quevedo C, Jones AM, López-Nicolás Á, Rice N. Socioeconomic inequalities in health: a comparative longitudinal analysis using the European Community Household Panel. *Social Science and Medicine* 2006; 63:1246–61

2. Durán A, Lara JL, van Waveren M. *Spain: Health system review*. Health Systems in Transition 2006;8(4).

3. Health Consumer Powerhouse. *Euro Health Consumer Index 2007 Report*. Brussels: Health Consumer Powerhouse, October 2007.

4. INE. *Mortality Tables 1992 – 2005*. Madrid: Instituto Nacional de Estadística, 2007.

5. García Altés A, Rodríguez-Sanz M, Pérez G, Borrell C. *Desigualdades en salud y en la utilización y el desempeño de los servicios sanitarios en las Comunidades Autónomas*. [Inequalities in health and in the utilisation of health care services in the Autonomous Communities] Cuadernos Económicos de ICE (in press).

6. García-Gómez, P, López-Nicolás Á. Regional Differences in Socioeconomic Health Inequalities in Spain. Bilbao: Fundación BBVA, Working Paper 09, 2007. Available at http://w3.grupobbva.com/TLFB/dat/dt9_07_regional_differences%20.pdf

7. Borrell C, Peiró R, Ramón N, et al. Desigualdades socioeconómicas y planes de salud en las comunidades autónomas del Estado español [Socioeconomic inequalities and the health plans of the Autonomous Communities in Spain] *Gaceta Sanitaria*, 2005;19(4):277–85.

8. Judge K, Platt S, Costongs C, Jurczak K. *Health Inequalities: A Challenge for Europe*. London: UK Presidency of the EU, 2006. Available at http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4121583.pdf

The migration of Flemish doctors to the Netherlands

Jos van den Heuvel, Jan De Maeseneer and Lud van der Velden

Summary: The cross border migration of Flemish general practitioners (GPs) to the Netherlands was examined. In the recent past Belgium experienced a surplus in GPs, while in the Netherlands a shortage was observed. Despite the availability of potential incentives in respect of income and professional practice, surprisingly very few Belgian GPs have moved to practices in the Netherlands. Most probably considerations with regard to social-cultural factors are the most important elements in individual decisions on whether or not to migrate.

Keywords: International Labour Migration, Health Care, General Practitioners, Belgium, Netherlands

In the Netherlands, there was a shortage of general practitioners (GPs) in the recent past.[1,2] By contrast, over the same period a surplus was observed in the neighbouring country of Belgium.[3] As there are no language barriers between the Netherlands and Flanders (the Dutch speaking part of Belgium) and no formal obstacles with regard to the recognition of the professional qualifications, it would not have been surprising if these conditions had resulted in significant inward migration flows of Flemish doctors to the Netherlands.

From the perspective of potential labour migration within the European Union, it is of interest to explore whether these conditions did indeed lead to significant migration. Therefore, a study was set up to examine firstly, how many Flemish doctors settled in general practice in the Netherlands, and secondly, to determine if it was possible to identify plausible explanations for these migration movements.

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Methods

Data on the number of Flemish doctors who have settled in the Netherlands were obtained from the GP database of the Netherlands Institute for Health Services Research (NIVEL). This database provides a complete picture of the work status of all GPs in the Netherlands, from their initial entry into the system until retirement.

This database was thus used to help determine migration patterns of GPs working in the Netherlands. Data from Statistics Netherlands on population and the number of contacts with GPs per inhabitant were also used. Similar data on the number of GPs, population and number of GP contacts were also gathered for Belgium as a whole, and Flanders in particular, from the Belgian Federal Organisation of Public Health Insurance, RIZIV (Rijksinstituut voor Ziekte- en Invaliditeits-Verzekering) and Statistics Belgium. Furthermore, an examination was made of relevant literature, while key informants from both the Netherlands and Belgium were interviewed in order to obtain a more qualitative insight into possible explanations for the migration pattern observed.

Push and pull factors: selected drivers and obstacles

Social and psychological conditions, as well as professional opportunities, can influence an individual's decision to migrate. In the scientific literature these conditions are often called push and pull factors.[4] Not all commonly presented factors have the same relevance within the context of the Flemish/Dutch situation. Several factors were considered most pertinent and thus studied in more depth: professional opportunities; working conditions; income; educational opportunities and culture.

Professional opportunities

In general, professional opportunities depend on the position within the health care system, the workforce situation and job responsibilities. In this regard, a comparison between the two regions yielded a number of findings. Firstly, the most prominent difference between the two countries is illustrated by the 'gate keeper' function the Dutch GPs play in the health care system, which is in contrast to the position of their Flemish colleagues. Referral by a GP to a specialist is required for the coverage of specialist treatment in the Netherlands, whereas in Belgium patients are allowed to visit a specialist without such a referral. Moreover, the health insurance system in the Netherlands requires the registration of patients with a specific GP (patient-list), again something that does not apply in Belgium. As a consequence, Dutch GPs have a significantly stronger position as doctors of first contact for patients.

Table 1: Key figures on GP and specialist care in the Netherlands, Belgium and Flanders

	Netherlands		Belgium		Flanders	
	2005	Source	2004	Source	2004	Source
Number of registered GPs	10,061	a	14,050	c	7,061	c
Number of professionally active GPs	8,850	a	10,359	c	5,718	c
Percentage of professionally active GPs	88%		74%		81%	
Number of full time equivalents (FTE) of GPs	7,129	a	7,655	c	4,528	c
Mean number of FTE per GP	0.81		0.74		0.79	
Number of inhabitants (in thousands)	16,257	b	10,396	d	6,066	d
Mean number of GPs per 1.000 inhabitants	0.54		1		0.94	
Mean number of inhabitants per GP	1,837		1,004		1,061	
Mean number of inhabitants per FTE GP	2,280		1,358		1,340	
Number of professionally active medical specialists (MSs)	14,283	a	17,048	c	8,561	c
Mean number of MSs per 1.000 inhabitants	0.88		1.64		1.41	
Mean number of inhabitants per MS	1,138		610		709	
Mean number of MS per GP	1.61		1.65		1.5	
Mean number of contacts per year with a GP per inhabitant	3.6	b	4.6	d	4.6	d
Mean number of contacts per year per GP	6,613		4,616		4,880	
Mean number of contacts per year with a MS per inhabitant	1.8	b	2.3	d	2.0	d
Mean number of contacts per year per MS	2,049		1,403		1,417	

Sources:
a. NIVEL; b. Statistics Netherlands; c. RIZIV; d. Statistics Belgium.

The Netherlands has 5.4 GPs per 10,000 inhabitants (see Table 1). In Belgium there are 10.0 GPs per 10,000 inhabitants, with a similar supply of 9.4 GPs per 10,000 inhabitants in Flanders. Therefore, there are almost twice as many GPs in both Belgium and Flanders as in the Netherlands. However, for a more appropriate comparison, working time equivalents should be taken into account. Based on a crude comparison, more GPs in Belgium and Flanders seem to work on a part-time basis than is seen in the Netherlands. The average GP in the Netherlands works 0.81 of a Full Time Equivalent (FTE), while the average Belgian GP works only about 0.74 FTE. This leads to an estimated 4.4 FTE GPs and 7.4 FTE GPs per 10,000 inhabitants in the Netherlands and Belgium respectively; which is still a remarkable 1.7 times more in Belgium compared to the Netherlands.

Support from auxiliary health professionals also influences workforce capacity. Working with a practice assistant allows for the delegation of tasks, resulting in a higher number of patients that a doctor can care for. In the Netherlands, each GP has roughly one practice assistant; in Belgium, the use of such professionals is rare. Differences in the number of medical specialists might also shed light on the difference in the number of GPs. The number of medical specialists per 1,000 inhabitants in the Netherlands is low compared with the situation seen in Belgium. As with GPs, Belgium has almost twice as many medical specialists. On the other hand, in the Netherlands about 1,100 specialised 'nursing home physicians' provide care for patients in nursing homes and similar institutions. This type of specialist does not exist in Belgium where GPs must also provide care for nursing home residents.

Regarding these differences, the way in which the workforce is regulated should be considered. In the Netherlands, the number of GPs is regulated in two ways: firstly, through a legally set 'numerus fixus' for undergraduate education; secondly, by a limited number of positions for the postgraduate vocational education scheme. In Flanders, by contrast, the only limitation to the intake of undergraduate students is an admission examination, which has only been in existence since 1997. Moreover, it was only in 2004 that any restrictions were introduced on the number of positions available in the postgraduate vocational education scheme.

In general, no substantial differences between the two countries exist regarding job responsibilities of GPs. Consultation, diagnosis, prevention, treatment, referral to a specialist or allied health professional and prescription of medicines are the

common elements of a position which is crucial in the continuity of health care provision.

Working conditions

In Belgium, most GPs work in single-handed practices, without practice auxiliaries. In contrast, many Dutch GPs are members of group-practices consisting not only of several GPs, but also allied health professionals and practice auxiliaries. The benefits for these doctors of working in a structured collaboration like group-practice are less working hours per week and working days per year.

Workloads are dependent on the number of patients per GP and patient appeal to the GP. The difference in the relative number of GPs per 10,000 inhabitants indicates that one GP in the Netherlands has to deliver care to approximately 1,840 inhabitants. In Belgium this population to GP ratio is 1,004:1 and in Flanders 1,061:1. In addition, individuals in the Netherlands on average visit a GP 3.6 times a year per inhabitant. In Belgium and Flanders the number of GP-contacts per inhabitant is 28% higher at 4.6 times a year. On average, each GP has about 6,600 contacts with a patient per year in the Netherlands, compared with about 4,600 in Belgium and 4,900 in Flanders. So, compared to the average Belgian or Flemish GP, Dutch GPs have to deal with 43% or 36% more contacts per year.

Time per contact also varies.[5] In the Netherlands, the average patient contact in a GP practice lasts about ten minutes while in Flanders, this is about 15 minutes. Moreover in Belgium as a whole, 31% of all contacts are house-calls, compared with less than 10% of contacts in the Netherlands. This again will result in differences in workload.

Income

Recent OECD data[3] indicates that the average income of Dutch GPs was twice the average of Belgian GPs in 2002: €100,000 vs. €50,000. A number of caveats must however be applied. First of all, the definition of 'GP' is not the same in both countries. In the Netherlands, the title of 'huisarts' (Dutch for GP) is legally protected and allowed to be used only by those doctors who have successfully followed the post-graduate vocational training scheme and who have been registered on the formal register for GPs. In Belgium, however, the title of 'general physician' can be used by all doctors who have not finished formal specialist training. In this sense, more than 17,000 Belgium doctors are considered to be 'general physicians'. However, the number of professionally active GPs is less, at about 10,000, or 14,000 if we count those doctors who are accredited GPs and perform at least 1,250 patient contacts according to the RIZIV. As a consequence, when dividing the cost of GP care by 10,000 instead of 17,000, one arrives at a gross average income for Belgian GPs that does not differ much from that of their Dutch counterparts. Secondly, the average income figures for GPs in the OECD data reflect the gross income of doctors. To fully interpret these figures, differences in taxation and post-retirement provisions for doctors have to be taken into account, in order to reach a judgement on actual disposable income.

Continuing professional development

Continuing professional development (CPD) is crucial in terms of quality assurance in health care. Until recently, no formal obligation for CPD existed for Belgian GPs, but CPD contributed to 'accreditation' by health insurance companies, including access to higher rates fee-for-service. In 2006 some quality criteria were introduced in order to retain qualifications. In the Netherlands, the system of a legally protected title is tied to a system of periodical re-licensing. Practicing Dutch GPs can be re-licensed if they can prove that they have been involved in CPD activities above a certain minimum level. Recently, the Belgian Minister of Health approved legislation aiming to develop a future system of mandatory CPD activities for Belgian GPs.[6]

Culture

Flanders and the Netherlands are neighbouring geographical areas where the same language is spoken. In this respect, from a distance it may look as if both societies are very similar. However, this is not really the case. The general feeling in both countries is that there are significant cultural differences which are reflected also in the overall attitudes of doctors. The prevailing attitude of Dutch physicians is aimed at transparency in medical practice and professional accountability: the science of medicine, or in Dutch 'geneeskunde'. This is illustrated in the development of various professional guidelines that are 'evidence based'.

These guidelines play not only an important role in everyday practice, but they are also commonly used as a benchmark for 'professional standards'. Belgian doctors, on the other hand, while naturally taking into account available scientific evidence, tend to include more 'soft' considerations. In Belgium, medicine is still considered more of an art, in French expressed as 'l'art de guérir', or in Dutch as 'geneeskunst'. Potentially, this difference in attitude could be a driver for migration of doctors who feel more attracted to the other approach.

In addition to these professional factors, social differences can also play a very important role. These can include educational opportunities for children, including the quality of secondary education, labour opportunities for partners and, last but not least, family and friends.

Facts on cross border migration of GPs between the two regions[4]

Before 1999, about two Belgian born (and probably Flemish) GPs entered the Dutch GP workforce each year. Compared to the total inflow of GPs with foreign GP training, these Belgian/Flemish GPs only accounted for 7% of the total during this period. Furthermore, compared to the total inflow of some 250 GPs per year with Dutch GP training, the Belgian/Flemish inflow was almost negligible.

From 1999 until 2003, the inflow of Flemish GPs was eleven per year, about one quarter of all foreign trained GPs who entered the Dutch workforce. Compared to the total number of Dutch trained GPs in this period (300 per year), the inflow from Belgium remained marginal.

In 2004, only seven Flemish GPs entered the Dutch GP workforce and in 2005 only five. So, while the inflow was relatively high in 2000, it has been declining in recent years.

Interestingly, most GPs with foreign GP training who entered the Dutch GP workforce are in fact Dutch born GPs who went abroad for their vocational education. This was due to the restrictions on the number of vocational education positions in the Netherlands. Most went to Belgium and returned after a few years to the Netherlands. A few went to England, others to Germany.

The number of Dutch GPs who settle in Belgium, is less than one per year. The total number of GPs who are going to work outside the Netherlands is about 5 per year. They move worldwide, to work in any country. From these data it can be

concluded that very few GPs migrated between Flanders and the Netherlands during the last decade. In general, Belgian GPs do not tend to settle in practice abroad frequently. Over the last decade on average 15 GPs per year migrated to France. The estimated numbers of migrant GPs to Germany or the United Kingdom were even smaller.

Shortage or surplus?

Based on the facts presented on the available workforce and workload in Belgium and the Netherlands, it is very difficult to state objectively that in one situation a shortage existed and in the other a surplus. Waiting lists are often mentioned as a yardstick for a shortage in provision; unemployment for a surplus. It should however be noted, that shortfalls based on need can co-exist with the unemployment of health workers, due to local market conditions.

In this survey, no structural problems with regard to the accessibility of GP care in the Netherlands, nor to the unemployment of Belgian GPs, were observed. Therefore, the question remains unanswered as to whether the workforce mismatch in both countries, as experienced by many individuals, reflected a real misbalance between demand and supply for care. Moreover, it can be stated that, methodologically, there are no gold standards for assessing sufficiency of the workforce in health care.[7]

Discussion and conclusions

The facts in respect of cross-border migration of GPs between Flanders and the Netherlands show that, despite potentially stimulating factors with regard to income and professional practice, surprisingly very few Belgian GPs have settled in the Netherlands. The small number of migrants and the fact that no sound scientific explanatory model for migration flows is available, do not allow for any general conclusions on the reasons for international migration between two neighbouring countries.

Considering the potential drivers and obstacles described in the literature, it can be concluded that significant differences between professional opportunities, working conditions, income, educational opportunities and cultural values, have not stimulated many of the Flemish to go abroad; even though 'abroad' is nearby and no general obstacles, like foreign language or the recognition of professional qualifications played a role. It can also be concluded that individual considerations with regard to social-cultural conditions are the most prominent in the process of deciding whether or not to emigrate in these two western European countries. Consequently, the development of any scientific model that might help to explain objectively the reasons for individual migration does not seem to be realistic; the multitude of potential influences can have quite different values for different individuals (See Box).

In addition to the push and pull factors described above, it might be the case that for disciplines like 'family medicine' with a high contextual 'load', migration is not as easy as that observed for more 'technical' disciplines such as anaesthesiology or surgery.

Box: Case study interviews

Two Flemish general practitioners shared their experiences to illustrate the individual dimensions of international labour migration. One doctor had migrated, the other had not, despite previously planning to do so.

Belgian GP practising in the Netherlands; Dr A

At the end of the 1990s, Dr A was not happy in his GP practice in Flanders. Too little income, too heavy a workload and the humble position of Flemish GPs within the health care system, made him think of moving to the Netherlands. After a period of exploration of the opportunities and disadvantages, including serious deliberations within his family, he became a GP in a deprived area in one of the big cities in the Netherlands in 1999. After the decision to migrate, he and his family had to go through a mountain of administrative procedures, not only with regard to the recognition of his professional qualifications, but also with regard to practical aspects of cross-border migration, like residence permits and insurance. Despite these obstacles, the positive expectations for the future remained unbroken. Positive expectations of a more challenging and more rewarding professional life overrode the insecurities of a professional and family life in an unfamiliar environment.

After seven years practicing in a non-native country, Dr A is able to state that his expectations have been met. He feels really at home in the Dutch health care system, considering the position of the GP and the organisation of GP care. In addition, he is very active in professional debates on the changing scene of health care provision in the Netherlands.

Belgian GP not practising in the Netherlands; Dr B

In 1999 Dr B considered migrating to the Netherlands due to low income resulting from insufficient patient visits to his general practice in Flanders. At that time, meetings were organised in Antwerp, the main city of Flanders, in order to recruit Flemish GPs to work in the Netherlands. Dr B attended one meeting. This was followed by visits to two locations in the Netherlands, where more GPs were needed and which were potentially interesting work environs. One of these places was in the deprived area of a large city, the other in a small town close to the Belgian border. Dr B was very much interested in this nearby town, but, so were some twenty Dutch GPs. He considered his chances and the needs and desires of his family (a son with severe disabilities, social environment, and housebound wife), and he decided to stay in Belgium.

Dr B made the following general remark. The income differential between Belgian and Dutch GPs, found in almost all international comparative studies, does not reflect the real difference in disposable income. In his view disposable income during working life is about the same in both countries due to differences in taxation. However, pension provisions in Belgium are very poor and require additional payments during working life in order to achieve a reasonable income post retirement.

References

1. Van der Velden L, Hingstman L. The supply of general practitioners in the Netherlands. In: Wester FP, Jabaaij L, Schellevis FG (eds). *Morbidity, Performance and Quality in Primary Care – Dutch General Practice on Stage*. Oxford, Radcliffe Medical Publishing, 2006.

2. *Ontwikkeling capaciteit huisartsenzorg [Development of GP Care Capacity], 2000–2004–2012*. Capaciteitsorgaan, 2004.

3. Simoens S, Hurst J. *The Supply of*

Physician Services in OECD Countries. Paris: OECD, Working Paper 21, 2006.

4. Buchan J, Parkin T, Sochalski J. International Nurse Mobility: T*rends and Policy Implications*. Geneva: Royal College of Nursing/World Health Organization/ International Council of Nurses, 2003.

5. Deveugele M, Derese J, van den Brink-Muinen A, Bensing J, De Maeseneer J. Consultation length in general practice: cross sectional study in six European countries. *British Medical Journal* 2002;325:472–77.

6. De Maeseneer J. Manpowerplanning in de huisartsgeneeskunde in België: van 'emotie' naar 'evidence'. [Manpower-planning in family medicine in Belgium: from 'emotion' towards 'evidence'. *Tijdschrift voor Geneeskunde* 2006;62(22).

7. World Health Organization. The world Health Report 2006 – *Working Together for Health*. Geneva: WHO, 2006.

Seeking a better balance:
Developments in intergovernmental relations in Italian health care

George France

Summary: Health care policymaking in Italy takes place at both central government and regional levels. The latter have significant freedom on expenditure, but have relied heavily on central funding. This asymmetry has caused accountability problems manifested in chronic regional deficits. Deficit spending runs counter to the external hard budget constraint – a condition of membership of the European Monetary Union. Over the last seven years, central government has developed a two-pronged strategy: use of central spending power and intergovernmental negotiation and cooperation. Regions are offered financial help provided they respect conditions – some extremely severe – on budgetary management and health service provision. The conditions, negotiated between the State and the regions, are part of a series of accords, bricks for the construction of a framework for intergovernmental co-operation. The strategy appears to be producing results, although it is too early to tell if the structural problems causing the deficits will be amenable to rapid resolution.

Key Words: Italy; Health Care; Finance; Cooperation.

In elections held in Italy in June 2006, the centre-left coalition headed by Romano Prodi was victorious over Silvio Berlusconi's centre-right formation which had governed Italy since 2001. The transfer of power has been marked by some changes in health care policy, but on the whole there has been continuity. This may come as a surprise given the gulf which separates the two political groupings in most policy areas. Continuity in health policy, however, may be due to the persistence of certain structural problems in the Italian health care system.

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Bipolarism in health policymaking

Italy has a constitutionally based system of regionalism. There are twenty regions with elected governors and legislative assemblies. Regional autonomy is most advanced and visible in the health care sector where responsibility is shared between central government and the regions. The State is responsible for setting health policy in broad terms and for promoting and protecting the national interest in health care. This national interest takes concrete form in the tax-financed National Health Service (Servizio Sanitario Nazionale – SSN) and in the national health care entitlement (Livelli Essenziali di Assistenza – LEA), that is services which are guaranteed to all citizens regardless of place of residence. As a result of an amendment to the Constitution in 2001, the State was required to make sure that the LEA is guaranteed to all citizens and to ensure, via equalisation grants, that all regions have the financial means to do this.

The constitutional jurisprudence has for long held that the regions have virtually complete autonomy in the organisation and administration of the regional health services. Until the early 1990s the regions were mainly concerned with the detailed design and implementation of centrally set policies such as market oriented reforms, public management, Diagnosis Related

Grouping (DRG) based hospital financing and provider accreditation. More recently, they have become more active policy *makers* and less policy *takers* and have been innovating across the entire health policy sphere. For example, they have been active in: setting guidelines and standards (for the delivery of specific health services, accreditation of centres for assisted reproductive therapy and transplant units, etc); setting up programmes for immigrant health care, improving the diets of school children and women's health, as well as providing additional services not specified in the LEA.

Groups of regions have agreed on procedures for regulating cross-border flows of patients. Regions have also organised schemes for centralised purchasing of services and equipment and have experimented with complex accounting systems. Finally, some regions are funding medical and health services research. The constitutional amendment of 2001 then formalised this autonomy which the regions had begun to accumulate on an ad hoc basis over the years. Health policymaking in Italy has therefore two distinct loci – the State and the region.

Asymmetry and the problem of regional accountability

In contrast with the thrust of the regions for power, the State in the second half of the 1990s seemed to be gradually withdrawing from proactive health care policy making with the important exception of health care financing and expenditure control.

The SSN has been plagued virtually from its birth by a lack of regional accountability due to asymmetry between spending and revenue raising responsibilities. Taxation had been centralised in Italy in 1971; when the SSN was set up in 1978 it was believed that the national interest in health care required central financing. The regions in consequence lacked any significant own-source revenues. At the same time, constitutional limitations on central intervention in the running of the SSN meant that the State had very limited influence over how the regions used their grants. Inevitably, the regions failed to live within the means provided to them and ran up deficits. The State tried to contain aggregate spending with a policy of deliberate under-financing, in the hope that fiscal stress would induce the regions to economise and rationalise their spending. Instead, this tended to aggravate deficits.

Repeated measures to make the regions responsible for their deficits foundered because of their lack of revenue raising powers. From the mid 1990s, the State granted the regions important taxes, in particular a 'piggy-back' tax on the national personal income tax, a regional business tax and a motor vehicle tax. A few regions have become completely self-sufficient, but most still rely to some degree on central financing, some very heavily so. This in part reflects wide disparities in regional tax bases: Using Gross Domestic Product (GDP) per capita as an appropriate measure of regional tax take, in the northern Lombardia region this was 28% higher than the national average, compared with the southern region of Calabria where it was 35% lower than the national average.

These differences in tax bases, combined in some regions with weak administrative and technical capacity and set in a context of substantial regional autonomy, meant that over time there was a growing divergence in the character of health care available in the individual regions. The fear was that the integrated SSN risked being replaced by a loose-knit federation of heterogeneous regional health systems, placing in serious jeopardy the national interest in health care. Moreover, year after year, the regions continued to report deficits, accumulating over time a mountain of debt, some of this dating back as far as 1994. Something had to be done.

The external budget constraint

The irony is that, contrary to what the chronic deficits in the SSN might suggest, public spending on health care spending in Italy was, and continues to be, relatively low by international standards: 6.4% of GDP in 2004 compared with the OECD-Europe average of 6.6%. Expenditure per head in 2004, at purchasing power parity, was $1,828 compared with an OECD-European average of $1,942.[1] The problem lies elsewhere. Italy has built up a large public debt over time, currently equivalent to 107% of GDP. This has heavily constrained spending options. To illustrate the magnitude of this debt, if this could be halved, €35 billion per annum in interest payments could be avoided.[2]

This opportunity costs of servicing the public debt include foregone expenditure on health care and other public services, reduced investment in infrastructure and limited scope to reduce taxes. It has meant that for public health care Italy cannot afford per capita spending levels similar, for example, to those in Germany, France or the UK, unless it cuts expenditure elsewhere or increases tax levels. In addition, as a condition of membership of the European Monetary Union, Italy had to undertake to maintain an overall balance in the public budget and to substantially reduce its public debt. Living with such a hard budget constraint means rigorous central planning of aggregate public expenditure levels; chronic divergence between planned and actual spending cannot be permitted, especially in a sector as large as health care. Meantime, economic and political considerations rule out the option of increased national taxation.

Changing the balance

The need to impose a hard budget constraint in public health care was all the greater because of the approval by referendum of the constitutional amendment in October 2001. This, among other things, consolidated the autonomy of the regions and placed an obligation on the State to guarantee that the regions had sufficient resources to deliver the LEA. The outcome of the referendum had already been anticipated by the Berlusconi government elected in May of that year. Foreseeing the need for a re-adjustment in the intergovernmental balance of power, they negotiated an accord with the regions barely three months later.[3]

This accord of 8 August 2001 provided for central aid to the regions to help them eliminate their accumulated deficits, but only on condition that they demonstrated concretely how they planned to avoid future deficits, including resorting to increased regional tax rates, patient co-payments, property sales and steps to reduce unnecessary and inappropriate care and labour costs. An important innovation was the imposition of rules on allocating the blame between the State and the regions for deficits and, therefore, responsibility for funding them. For example, a distinction would be drawn between increased expenditure due to a higher wage bill as a results of nationally negotiated labour contracts and new expenditure stemming from regions providing services not included in the LEA.

Seen in retrospect, the 2001 accord was a watershed in intergovernmental relations in health care. Cooperation replaced confrontation. However, the accord on its own proved insufficient to put a stop to regional deficits. Over the period

2002–2005, a total deficit of €20,851 million was accumulated. Using the new rules, almost 84% of this sum was attributable to the regions.[4]

On March 23 2005, another State-region accord was signed under which, in return for help in eliminating the deficits accumulated in the period 2001–2005 and any remaining debt incurred before 2001, the regions accepted considerably tougher conditions.[3] As with the 2001 accord, they had to prepare detailed proposals for balancing their future budgets, plus describing how they intended to cover any deficits that should occur. The regions had also to agree to transmit detailed information to the central authorities on the operation of their health services; this information had to conform with definitions set by the New System for Health Information (NSIS) operated by the Ministry of Health. Additionally, they were required to introduce in all facilities detailed accounting systems based on cost centres. Other conditions included action being taken to rationalise the hospital sector, in particular reducing the bed stock and creating alternatives to inpatient care such as day hospitals, ambulatory surgery, domiciliary health care and extra-hospital residential and semi-residential care.

Heavy emphasis was given to the need to integrate these delivery options to secure seamless care. State financial help in tackling their budget imbalance would be granted only after external appraisal of the regions' actions. 5% of the annual state funding to a region to finance the LEA entitlement would be withheld until the central authorities were satisfied that the conditions contained in the accord had been met.

A survey of regional health policy in 2005-2006 found that the bulk of the regions were trying hard to meet these conditions.[5] In the closing months of the Berlusconi government in 2006, the financial screws were turned ever tighter on those regions still running serious deficits. The bulk of the deficits (64.4%) were run up by just seven regions.[4] Eligibility for state aid to these regions was made dependent on their preparing a *Budgetary Balance Plan* (Piano di Rientro) which would serve as the basis for a bilateral accord between the individual region and the State. This Plan had to provide as precise an estimate as possible of the region's indebtedness, calculated with the help of an *Advisor Bank* nominated by the Ministry of the Economy and Finance. Debt had to be renegotiated with creditors; the State helped to lighten the annual burden to a region of debt repayment by making it a long term loan repayable in thirty annual instalments.

The Plan had to include measures aimed at resolving the problem of structural budgetary imbalance, including further increases in regional tax rates. These measures were to be designed by each region working closely with a team of experts nominated by, and reporting directly to, the Ministry of Economy and Finance. In addition, each region was expected to enter into a 'partnership' with a region in budgetary balance, with a view to facilitating the procurement of know-how and experience. The seven regions were subject to strict data reporting requirements, continuous monitoring, as well as quarterly and annual in-depth appraisals. Regions receiving aid under these terms were in effect under special surveillance.

The Prodi government, which took office in June 2006, continued this policy and set itself the target of regional budgetary balance by 2009. A State-region accord, called *A Pact for Health* and signed in September 2006, laid out the strategy to be followed.[6] The Prodi government increased the resources going to the SSN for fiscal years 2006 (via supplementary funding) and 2007. The proportion of the state grant to be retained until the central authorities are satisfied that the conditions have been met was however reduced to 3% for 2007.

A Transition Fund has been set up to provide additional aid to the regions with serious deficits, provided of course they meet the conditions included in the various accords. Those running a deficit in 2006 equal to or more than 7% of planned spending have been classed as "regions in difficulty". Three such regions accounted for 75% of the total national deficit in 2006 (Lazio, where Rome is located, Campania, including Naples, and Sicily), while another four (Abruzzo, Molise, Liguria, Sardinia) also meet the 7% criterion. The State signed bilateral accords with five of these regions in February 2007 and with the remaining two in July.

Wielding the spending power

Central strategies to rein in regional deficits have heavily conditioned regional options on the financial plane. The seven 'regions in difficulty' are in such dire financial straits that they have been prepared to accept severe limitations on their freedom of action. This exercise of central spending power represents a dramatic break with the period pre-2001 when state financing was granted virtually unconditionally. Central grants had tended to be seen as going to finance expenditure considered to be essentially rigid in the short to medium term. Moreover, these grants were intended to help finance the LEA which the State and regions were constitutionally obliged to guarantee. Finally, there was a tendency in Italy to see regional autonomy as a situation whereby there would be minimal central interference on how funds from the centre were spent. This meant that central government in Italy lacked the instruments to influence regional policy in health care to any significant degree. Italy had differed here from other countries with decentralised systems of government, such as Australia, Canada and the USA, where the federal governments have always made heavy use of the power of the purse – spending power – to condition the health policies of sub-central governments.

Now, under the State-region accords described above, the central government is trying to do just this – use its spending power to condition regional budgetary policies. And it is going further. The Berlusconi government saw a window of opportunity and used the weakened bargaining power of the regions stemming from their precarious finances to impose additional conditions aimed at influencing regional policies on the provision of health services. There seem to have been several motivations for this. First, there was concern that, with the imperative to balance their budgets, the regions might evade their constitutional obligation to provide the LEA. Second, as noted earlier, regional autonomy plus differences in tax bases and administrative capacity risked creating excessive geographical heterogeneity in the SSN and damaging the national interest in health care. Third, the central government may have been trying to re-assert the constitutional power to set the broad direction of health care policy that had been placed in question by the regions' thrust for autonomy during the 1990s.

Thus, the 2005 accord required, as an additional condition for receiving supplementary funding and the 5% retention, that the regions design programmes to implement national plans for prevention, training and revalidating SSN staff and

reducing waiting lists. Additional state funding was available for this, provided the regions also met part of the cost.

The regions have responded positively here. For example, all regions had announced measures to cut waiting lists by March 2007[7] and most had published strategies on prevention by the end of 2006.[5] In addition, as already noted, the 2005 accord contained requirements regarding the rationalisation of the hospital sector and the integration of health care delivery options. The regions continue to have wide discretion in the design and administration of programmes, but it is a measure of the effectiveness of the centre's spending power that they have accepted policy directives from the centre which only a few years ago would have been immediately contested in the Constitutional Court or possibly just ignored. Another likely reason for regional compliance is that the national strategies have been negotiated by the State and regions and included in the accords as annexes.

The Prodi government has continued the strategy of using central spending power to influence health care service provision by the regions. Regions are required to submit to regular appraisals and monitoring by teams attached to the Ministry of Health with the specific purpose of verifying that the regions are meeting their LEA obligations.

Over and above requiring continued regional action in the specific fields targeted by the Berlusconi government, the Prodi government has created an ad hoc fund for the co-financing of projects in other fields, for example women's health, rare diseases and spinal units.

The new government has also continued to encourage intergovernmental cooperation and has taken it further. It called for "a new form of shared government" and urged a "cooperative and consultative approach". One of its first initiatives was the presentation in Parliament in July 2006 of *A New Deal for Health* [Un New Deal della Salute].[5] This strategy went beyond state-regional cooperation (addressed in the Pact for Health) and covered all the stakeholders in the health care system. As part of the *New Deal*, the Ministry of Health is cooperating with other ministries in investment programmes in health care in southern Italy, financed in part with European Union funds, and in initiatives to promote population health. It has also signed agreements for the promotion of population health with voluntary associations, patient groups and consumer organisations. Finally, it has set up a broad swath of ministerial commissions and working parties involving the health care professions, with briefs to make recommendations regarding, for example, AIDS policy, doping in sport, appropriateness of medical prescriptions, pain therapy and palliative care, immigrant health care, stem cell research, women's health and vaccination policy.[8]

Prospects

Continuity in national health care policy since the early 2000s reflects the persistence of imbalance in regional health care budgets, particularly for the 'regions in difficulty'. It also derives from the search for compatibility between the pursuit of the national interest in health care and strong regional autonomy. Finally, continuity is the result of the need for national government to respect the hard external budget constraint accompanying membership of the European Monetary Union.

An important development has been the use of central spending power to influence regional policies, but what may prove to be equally significant is the emergence of a form of 'cooperative regionalism'. The two are corollaries: the bitter pill for the regions of the exercise of central spending power may be made easier to swallow by intergovernmental negotiation and co-operation in policy design and implementation. This would represent a break with a past characterised by State-region conflict and mutual incomprehension regarding the adequacy of central funding.

The strategies developed over the past six years may now be producing results. The majority of the regions appear to have their financial situation under control and the 'regions in difficulty' are under strict surveillance. It remains to be seen if it is possible to modify markedly the structural factors contributing to large deficits, at least within the short time frame set by the Prodi government. It is also an open question as to how long the 'regions in difficulty', particularly those with lower than average tax bases, can sustain the higher than average tax levels which they have had to include in their Budgetary Balance Plans. The other side of the coin is that some of the 'virtuous' regions which have attained budgetary balance are unhappy with the special treatment given to the 'regions in difficulty' via the Transition Fund, complaining that this is tantamount to rewarding improvidence. Further subsidies of this kind could be opposed.

Using spending power to influence the provision of health services may also be problematical. The regions do seem to have responded positively and are setting up programmes to implement national policies for prevention, waiting lists, integrated care processes, etc., but it is one thing to prepare programmes, it is another to implement them actively. It also remains to be seen if these programmes will produce the desired results, including containing costs. In any case, it is inevitable that there will be inter-regional differences here. But at least central policymakers do seem to have learned, albeit belatedly, a basic law governing policy-making in systems of decentralised government. This is, if it is to attain its goals, a central government needs the cooperation of subcentral government just as much as subcentral government need its funding.

References

1. Organisation for Economic Co-operation and Development. *Health Data 2006*. Paris: OECD, 2006.

2. Camera dei Deputati. *Documento di Programmazione Economico-Finanziaria Relativo alla Manovra di Finanza Pubblica per gli Anni 2008–2011*. Rome: Camera dei Deputati, 2007, p 7.

3. Available at ISSiRFA website (section *La Cooperazione Interistituzionale*), www.issirfa.cnr.it

4. Istituto di Studi e Analisi Economica. *Rapporto ISAE: Finanza Pubblica e Istituzioni*. Rome: Istituto di Studi e Analisi Economica, 2007.

5. Camera dei Deputati. *Rapporto 2007 sul la Legislazione tra Stato, Regioni e Unione Europea*. Rome: Camera dei Deputati, Osservatorio sulla Legislazione, 2007, Part II, chapter 5.

6. Available at www.ministerosalute.it

7. Ministero della Salute. *Riepilogo Piani Regionali – Liste d'Attesa al 30 Marzo 2007*. Rome: Ministero della Salute, Dipartimento della Qualità, Ufficio III, 2007.

8. Ministero della Salute. *Diario delle Attività e delle Iniziative del Ministro Livia Turco, Giugno 2006 – Maggio 2007*. Rome: Ministero della Salute, 2007.

Institutional and community care for older people in Turkey

Ömer Saka and Nebibe Varol

Summary: Turkey still has a young population in respect to most other European countries, although the proportion of the population comprising older people is expected to increase in future years. This will necessitate a change in the perception and provision of health and social care services. Current services are already insufficient to meet the needs of the older population. The government and other institutions in Turkey need to be ready to meet these ever increasing needs and enhance the quality of existing services in order to improve the health and living conditions of older people in the country.

Keywords: Institutional Care, Social Care, Older People, Turkey

International awareness of health issues relating to ageing populations has been increasing in recent years as populations age. The rate of increase in population growth in Turkey slowed from 1.41% to 1.26% between 2000 and 2005. During the same period, the percentage of the population aged 65 years old and above increased from 5.4% to 5.9% and is expected to rise further to 7.75% by 2020[1] and to reach 17.6% by 2050.[2] Older people account for a even higher share of the population in rural areas, 9% compared to just 6% in urban settings.[3] 90% of all those over 65 have to live with chronic health problems. This ageing of the population, coupled with a change in family structures away from the extended family to the smaller nuclear family will increase the need for formal services for older people.[4]

Living arrangements for older people

While 65 years of age has traditionally been seen as the beginning of old age in many high income countries, individuals above 60 have been defined as being of old age in Turkey.[5] This is also the cut-off point for admission into residential long term care facilities. In 2003, according to one survey carried out by the State Planning Agency (DPT), 63% of older people lived independently in their own homes, 36% resided with their children and just 1% lived with other relatives or within a residential care facility.[6]

Although traditionally in Turkey, as in many other Mediterranean countries, older people in need have often lived with other family members, the situation is beginning to change. The demand for access to formal care services has expanded due to a myriad of factors. These include migration by children from rural areas to urban areas; the increase in the number of women in employment; changing culture and increasingly divergent values between young and old generations; and social and economic deprivation.[7]

Access to formal support services

The 1985 Law on Agency for Social Services and Child Protection, set out the conditions under which support and care could be provided to various groups of the population including older people, children and people with disabilities.[8] There are two principal types of support: access to financial support and secondly access to support services. Social security benefits are available to clients of the Retirement Fund (Emekli Sandigi), the Social Insurance Association (SSK) and the Social Insurance Association for Tradesmen and Craftsmen (BAG-KUR). Since 1976, some provision has also existed for "a monthly salary for indigent, destitute and homeless Turkish citizens over 65".[3]

The largest single provider of social care services for older people is the General Directorate for Social Services and Child Protection Agency (Sosyal Hizmetler ve Çocuk Esirgeme Kurumu – SHCEK). Operating nationwide, services include residential care homes ('*huzurevleri*'), home-care services, day centres and rehabilitation services.[3] Other service providers include municipalities, voluntary sector organisations ('*vakifs*') and the private sector.

Publicly funded places in residential care homes are primarily for those demonstrated to be destitute through an assessment of means, rather than those with severe health care needs.[3] Indeed, to gain admission an individual must be healthy enough to undertake activities of daily living independently, have no serious disability or illness requiring continuous medical care, no drug or alcohol abuse problems and demonstrate social and/or economic destitution through a social analysis report.

As Table 1 indicates the size of residential care home varies substantially, with more than 20,000 beds available in total. As of October 2007, SHCEK operated 69 homes with 7,504 beds.[9] There are no charges levied on residents, who in addition have all their health care needs, including medications and access to prosthetics covered. A further 25 homes with 4,432 beds are provided elsewhere by the public sector. More than 7,000 beds are also provided in 143 residential homes by other

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Table 1: Residential care home places in Turkey

Residential care home service provider	Number of homes	Number of beds
SHCEK	69	7,504
Other government ministries	6	2,442
Municipalities	19	1,990
Total public sector	**94**	**11,936**
Voluntary sector (including vakifs)	33	2,360
Minority group organisations	7	991
Private sector	103	4,478
Total voluntary and private sectors	**143**	**7,829**
Total	**237**	**19,765**

Table 2: Membership of day (solidarity) centres in Turkey, October 2007[2]

Day Centres	Men	Women	Total
Ankara Emek	31	174	205
Ankara Mamak	2	2	4
Canakkale	23	163	186
Izmir Nebahat Dolman	79	375	454
Eskisehir	57	13	70
Total Members	**192**	**727**	**919**

public and private sector organisations[2] (See Table 1). Legislation on private homes passed in 1997 states that individuals accepted into private homes must be above 55 years of age and require institutional care due to social and/or economic need.

Those in need of nursing and medical care and without mental health problems may be admitted to rehabilitation and care centres. Those with little income, as well as all who have been awarded state military honours (‘*Istiklal Madalyasi*’), are admitted free of charge. Everyone else must pay a charge.[10]

Community day centres

Five community day centres for older people (known locally as ‘solidarity centres’) fall under the remit of legislation enacted in 2001. The centres (including one with just four participants) provide an opportunity for mobile older people to expand their social networks, enjoy entertainments and improve the use of their leisure time; these activities, by reducing social isolation, can help individuals maintain psychological well-being and stave off illness. The centres also provide advice on health, psychological and social needs. Older people also act as volunteers in these centres helping their peers. There is a need to expand both the number of centres available, while also widening their appeal within the male population as the overwhelming majority of members are women. Additionally, SHCEK runs one day care centre for people with Alzheimer’s Disease in order to provide some respite to family carers, reduce the risks of staying at home alone and avoid overcrowding in nursing houses.[11]

In 1994, SHCEK started a project training home-carers. Families whose older relatives are in need of care can accept help from these carers after completion of training. The project, which is carried out by the Provincial Social Service Management (*Sosyal Hizmetler İl Müdürlüğü*) and implemented solely in Ankara, Istanbul and Izmir is anticipated to become widespread.

Challenges

The principal problem that older peoples’ services face today is the lack of institutional capacity, which is far below population need, as Tables 1 and 2 indicate. The Ninth Development Plan aims to support home-care services for older people and improve both the capacity and quality of residential care centres. It has been noted that “inadequate conditions in these facilities and the incompetence of the staff are the two foremost problems encountered”.[7] Professor Zerrin Soylemez from Gaziantep University, who is currently undertaking analysis of the situation in Turkey, also notes that other important issues include the lack of social and cultural programmes to support the social needs of residents of these institutions and the absence of special programmes on geriatrics at departments of nursing; these are only to be found in departments of psychiatry and public health.[7]

A study conducted in Izmir in the west of the country, indicated that older people living in a family environment had higher levels of self-assessed quality of life compared to those living in institutions.[12] The study suggested that it was difficult for health care services to meet the needs of older people by building residential care home or geriatric hospitals as in high income countries. Another study in a semi rural province concluded that living with family members results in higher levels of life satisfaction for older people.[14] Given the deficiencies in these institutions, home care services have an important role to play in resolving this problem. It is important to encourage individuals to remain at home by giving priority to organisations such as ‘Care at Home’ and ‘Daytime Care Homes’.

Another study analysed the situation faced by older people using data on 1106 individuals aged 65 plus from the 1998 Turkey Demographic and Health Survey.[13] Socioeconomic variables relating to individual, household and community-level factors were selected and the study then looked at housing, heating, source of drinking water and the type of toilet facilities, which are important factors impacting on daily life. It reported that 87.5% of older people owned their own homes, while the remaining 12.5% lived in rented accommodation. 82.7% were using stoves for heating, 45.8% lived in houses with a pit or other type of toilet difficult to use, 1% were using rivers/streams as a source of drinking water, while 35.9%

were living in houses with earth or wooden floors. When these figures and the declining sensory and physical abilities of older people are taken into account, it can be safely assumed that the risk of hip fractures due to the physical danger of living in such conditions can be very high. Turkey needs to improve the living conditions and quality of housing to decrease the risk of domestic hazards and improve quality of life.

This study also suggested that 25.2% of older people live in poverty without any regular income. This situation is particularly acute in the rural areas of the country, although it is complex because of cultural factors such as the understatement of the need for regular income, good food and access to health care services. While the government pays a quarterly salary to older people over 65, this is insufficient to meet needs. Despite free access to public transportation, the majority of older people in Turkey do not have access to health and geriatric service; geriatrics services in particular are scarce and unevenly distributed across the country.[14]

Malnourishment and depression are also significant problems. One recent study suggested that up to 5.4% of older people living alone, 2.4% in residential care homes and 0.4% living with families could be regarded as malnourished.[15] In a much older study from 1991, the prevalence of depression, assessed using the Hamilton Rating Scale was 35% (33% for men, 37% for women) for the total population, 41% (40% for men, 42% for women) for those living in an institution and 29% (24% for men, 33% for women) for those living at home.[16]

Reflections

The increasing proportion of older people in the population and their unmet need for care and support is a challenge that Turkey, a developing and changing society, now must face. Living conditions and access to health care are in need of revision and improvement. As the Ninth Development Plan indicated, policies to encourage and support care for older people within their own homes have to be adopted. Solutions need to be adapted to account for differing circumstances in rural and urban areas.

Both the capacity and the quality of the residential care institutions have to be improved. This must include those residences that cater for older people with disabilities and chronic health problems. The number of qualified personnel both for social and health care has to be increased. Preventive care services to maintain physical and mental health and advisory services on health and personal care needs have to be developed. Projects and programs to enable the social, cultural, economic and political involvement of older people should also be supported.[7]

Turkey also needs more research to map and profile the older population, in order to identify their expectations and service needs and appropriate social policies. The EU can also help in this respect. One such research initiative now underway involves the Contemporary Women and Youth Foundation, Gaziantep University and Gaziantep Social Services Directorate. This international project is carried out with partners in four other European countries under the coordination of the Paritatische Akademie in Germany.[17] Entitled C*ompetency Profile of Trainers for Domiciliary Care of Older People*, the project runs for two years until October 2008 within the scope of the EU Leonardo da Vinci programme. Activities include data collection on care; quality management education for older person care and on assessment of the need for education in this area; and the organisation of a National Conference in March 2008 in order to discuss findings with social partners.

References

1. Turkish Statistical Institute. *Population Statistics and Projections*. Turkish Statistical Institute: Ankara, 2007. Available at http://www.turkstat.gov.tr

2. Social Security High Advisory Commission. *Dokuzuncu Kalkinma Plani* [Ninth Development Plan]. Ankara: SSHAC, 2006. Available at http://plan9.dpt.gov.tr/oik11_sosyalguvenlik/sosyalgu.pdf

3. Research and Application Centre of Women Issues (GUKAMER). *Elderly care in Turkey*. Gaziantep: Gaziantep University, 2006. Available at www1.gantep.edu.tr/~gukamer/eng/eldery.htm

4. Yavuz S. *Changing Household and Family Compositions in Turkey: A Demographic Evaluation for 1968–1998 Period*. Hacetteppe University: Ankara, 2004. Available at http://www.sdergi.hacettepe.edu.tr/sutaymakale.htm

5. SHCEK. *Yaşliliğa Genel Bakiş* Ankara: SHCEK, 2006. Available at http://www.shcek.gov.tr/hizmetler/yasli/Yasliliga_Genel_Bakis.asp

6. Atalay B, Kontas YM, Beyazıt S, Madenoglu K. *Turk Aile Yapısı Araştırmas.* An Investigation of Turkish Family Structure. Ankara: State Planning Agency Publications,1992.

7. Soylemez Z. *Elderly Care and Elderly Structures in Turkey*. Wuppertal: First Transnational Conference, 2006. Available at http://www1.gantep.edu.tr/~gukamer/docs/Wup2.ppt#256,1,Elderly Care & Elderly Structures in Turkey

8. Secretariat General for EU Affairs. EU Accession Negotiations. Screening Chapter 23: Judiciary and Fundamental Rights. Ankara: Secretariat General for EU Affairs, 2006.

9. SHECK. *Yaşli bakim hizmetleri dairesi başkanliğinin görev ve yetkileri* [Services for the care of older people] Ankara: SHCEK, 2006. Available at http://www.shcek.gov.tr/hizmetler/yasli/Yasli_Bakim_Hizmetleri.asp

10. SHECK. *Huzurevleri ile Huzurevleri Yasli Bakim ve Rehabilitasyon Merkezleri* [Residential Care Homes and Rehabilitation Service Centres]. Ankara: SHCEK, 2006.

11. SHECK. *Ümitköy huzurevi müdürlüğü Alzheimer hastası yaşlılar gündüzlü bakım merkezi* [Day care centres for older people with Alzheimer's disease] Ankara: SHCEK, 2006. Available at http://www.shcek.gov.tr/hizmetler/yasli/Alzheimer.asp

12. Ozer M. A study on the life satisfaction of elderly individuals living in family environment and nursing homes. *Turkish Journal of Geriatrics* 2004;7(1):33–36.

13. Ayranci U, Ozdag N. Old age and its related problems considered from an elderly perspective in a group of Turkish elderly. *The Internet Journal of Geriatrics and Gerontology* 2005;2(1).

14. Senol Celink S, Celik Y. Ageing in Turkey. *Perspectives* 2001;4. Available at http://aabss.org/journal2001/Celik2001.jmm.html

15. Bekaroğlu M, Uluutku N, Tanrıöver S, Kırpınar I. Depression in an elderly population in Turkey. *Acta Psychiatrica Scandinavica* 1991;84(2):174–78.

16. Şanlıer N, Yabancı N. Mini nutritional assessment in the elderly: living alone, with family and nursing home in Turkey. *Nutrition & Food Science* 2006;36(1):50–58.

17. Research and Application Centre of Women Issues (GUKAMER). Gaziantep: Gaziantep University, 2006. *Basin duyurusu*. Available online at http://www1.gantep.edu.tr/~gukamer/2006.12.07.htm

Electronic Health Record development in Austria

Theresa Philippi

The Electronic Health Record (EHR) or *Elektronische Gesundheitsakte* (ELGA) aims to integrate the various but isolated systems of information technology (IT) based health data management that exist in Austria. The new ELGA, it is anticipated, will help promote the implementation of integrated care, in particular, through enabling better cooperation between the secondary/acute care sectors and the primary/community care (extramural) sectors.[1]

Currently, hospitals are the leaders in information communication technology (ICT) based data management and storage. Some have already implemented local EHR solutions allowing both individual units within and clusters of hospitals to gain access to specific health data. Doctors are, however, more reluctant to use IT in the management of patient data. The aim now is to place all health care providers on the same technological level playing field through ELGA. Data will originate from health care providers, as well as patients, and will be stored at the individual health care provider's facilities or hospital.

The use of ELGA obviously should increase the amount of information available to doctors, patients, nurses and pharmacists. At the same time the electronic health record will have an impact on established forms of cooperation and communication in the health care system. The highest levels of data security and data protection are indispensable preconditions to successful implementation. Access to data will thus be restricted to authorised individuals. Initially these will include health care providers working in hospitals, as well as doctors, laboratory and pharmacists. Nevertheless, being a strongly technology driven process, its introduction might prompt some scepticism, for instance in respect of data confidentiality and privacy issues, as well as concerns about a potential increase in bureaucracy required to operate the new system.

Thus, a broad and in depth process of information and communication with all stakeholders has been an essential prerequisite to implementation. The dossier *Outlook on the first implementation phase of ELGA in Austria* was the subject of a broad consultation process prior to approval by the Federal Health Commission in May 2007. Consequently, representatives of the principal stakeholders, as well as legal and data protection experts, have been integrated into the subsequent creation of the 'masterplan' for IT architecture completed in autumn 2007. Further features of ELGA will be shaped and implemented by six project teams, consisting of the key representatives from the principal players in the health system, i.e. doctors, pharmacists, social care, social security and the federal and regional administrations. Additionally, an analysis of the costs and benefits of the system will be conducted.

IT-Architecture

The ELGA-IT-Architecture will be built on an international framework of health related IT-standards, the so-called 'Integrating the Health Care Enterprise' (IHE) standards. The basic components of this Architecture are set out in Box 1. Core applications of the first implementation phase consist of the electronic discharge summary, e-Report laboratory, e-Report radiology and an e-Medication tool.

The architecture also contains crucial elements for data security. A special audit layer allows for the full control of retrievals, as well as the detection of abuse. Another important tool is the so-called 'Basic Patient Privacy Consent Register' which is designed to allow for the opt-in and opt-out of patients with regard to the accessibility of their individual data.

Box 1: Basic components of ELGA

- Nationwide master patient index
- Health service provider index
- Document registry providing links to documents
- Authorisation system
- Internet portal providing high quality health information as well as individual and secure access to personal data

Integrated care in a federal state

Austria's constitution as a federal state, consisting of nine provinces (*Länder*) and a federal entity (*Bund*), provides a special challenge when it comes to the implementation of this new EHR system. Legislative competence is shared between the Bund and the Länder, whereas the vast majority of hospitals in Austria are run solely by the Länder. Furthermore, although social security is state funded it is organised independently. In this environment it is crucial to create interfaces to facilitate integrated care and encourage communication in order to avoid redundant investments. Consequently, the task force for the implementation of ELGA (Arge ELGA), created in July 2006 consists of representatives from the Bund, Länder and social security system. Step by step implementation of the new system is dependent on regular consultation between all these system partners, in addition to decisions taken by the Federal Health Commission.

Legal matters

Implementation also has a number of legal implications, first and foremost in respect of privacy laws. Notwithstanding the provisions of the Austrian Data Protection Act, the EU Data Protection Directive 95/46 EC (most notably Articles 6 and 8) is the principal instrument to comply with.[2] The challenge for legislators will be to establish a balance between the right to

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privacy and the right to patient information. Long established legal acts already oblige doctors and hospitals to file patient documentation. More recently, the Health Telematics Act has provided rules on the electronic exchange of health data and respective information management.

Initially under the new system electronic health records will only be accessible to authorised health professionals, thus leading to impacts on relevant health system legislation. One way of addressing legal questions over patient identification (which is also a precondition for data protection) might be to take the data processing rules of the E-Government Act as a role model.

Potential for greater patient focus

The new ELGA clearly has much potential to improve information for patients and enhance patient empowerment. It is destined to give doctors and patients faster access to more and better quality information on their health status. With all relevant data readily retrievable, delays can be reduced and therapy commenced earlier. Redundant checks which are often burdensome for the patient (and at the same time costly for the health system) might be reduced or avoided.

Health care providers are also expected to benefit from the comfort of the 'full picture' of a patient's condition, as well as from higher quality communication with their colleagues and improved data management. In the long run, it is envisaged that the patient will be able to access his or her own record and feed data into the system by means of a personalised internet portal. Thus patient information will be enhanced. In this regard, patient groups have already been contacted by the ELGA team in order to integrate their needs in the design of ELGA's functionalities as much as possible.

References

1. Kodner D. Integrated care: meaning, logic, applications and implications – a discussion paper. *International Journal of Integrated Care* 2002; Oct–Dec(2):e12.

2. Commission of the European Communities. Working Document on the processing of personal data relating to health in electronic health records (EHR). Brussels: Directorate General Justice, Freedom and Security, 2007. Available at http://ec.europa.eu/justice_home/fsj/privacy/docs/wpdocs/2007/wp131_en.pdf

Pharmaceutical pricing and reimbursement in Romania

Irina Haivas and Bodgan Grigore

Overview of pharmaceutical funding and expenditure

The Romanian health care system is based on social health insurance, operating through a single National Health Insurance House (NHIH). Within the framework of social health insurance, the insuree benefits from access to medicines listed in the Medicines List. In 2007, the Romanian government allocated 4.2% of Gross Domestic Product (GDP) to health care, the largest budget as a proportion of GDP since 1990;[1] 80% of pharmaceutical expenditure is funded by the NHIH. However, per capita consumption is still low, at an average of €75 per annum, despite significant market growth of over 20% per year in recent years. The value of the Romanian pharmaceutical market in 2006 was €1.55 billion, with prescription medicines accounting for approximately €1.3 billion.

Pharmaceutical pricing

Pricing decisions are taken separately from reimbursement decisions. The National Catalogue of Medicine Prices sets the maximum retail prices, inclusive of VAT for prescription medicines, both imported and locally produced. The catalogue is published by the Ministry of Health and every three months updated and adjusted for inflation. These updates are available online free of charge.[2]

Prices for original medicines and generics are set through an external reference pricing mechanism, using the minimum price from three selected countries (Czech Republic, Bulgaria and Hungary). If data from these three countries are lacking or contradictory, Poland, Slovakia, Austria, Belgium, Italy, Denmark and the UK are then used.

Pharmaceutical reimbursement

Insurance coverage for medicines is based on the National Medicines List. This is a positive list compiled by a speciality technical committee called the Therapeutic Strategy Committee and then subject to a debate by a National Transparency Committee which includes representatives of NHIH. Finally, it is approved through an official government decision. The Therapeutic Strategy Committee is formed mostly of key opinion leaders in the medical field, generally heads of Speciality Committees. It also includes representatives of the NHIH, the Ministry of Health, and observers from trade and industry.

The list is organised into three sublists according to the level of reimbursement and cost sharing: 90% reimbursement (sublist A), 50% reimbursement (sublist B) and 100% reimbursement (sublist C). The latter includes medicines for ambulatory care for a group of diseases (category C1); medicines for patients included in national health programmes for diabetes, cancer and post-transplantation care (category C2); and medicines for people aged 18 and younger. Other groups covered include students and apprentices aged 18–26 if they have no income, as well as expectant and new mothers.[3]

The level of reimbursement refers to the cheapest medicine within a cluster of medicines with the same International Nonproprietary Name (INN), strength and pharmaceutical form.[3] The price is the reference price from the National Catalogue of Medicines Prices. Patients have to cover any additional costs if the medicine used is not the cheapest in a cluster, or if it is not fully reimbursed.

The current Medicines List has been

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Box: Criteria for the National Medicines List[5]

Inclusion criteria
1. New INN, with new therapeutic indication and a major clinical benefit.
2. Existing INN, with new therapeutic indication and a major clinical benefit.
3. INN with superior clinical efficacy compared to INNs in the same therapeutic cluster, as demonstrated by controlled clinical trials.
4. INN with superior clinical safety compared to INNs in the same therapeutic cluster, according to the data presented by the authorisation owner within the marketing authorisation process.
5. INN or associations of INNs, from the same therapeutic group, with the same therapeutic indication as the existing products for a certain disease, if this brings a cost reduction (the cost of a defined daily dose).
Non-inclusion criteria
1. INN not intended for outpatient treatment.
2. OTCs (over-the-counter medicines).
3. INN that brings no benefit, is not safer or cheaper than medicines already on the list.
Exclusion criteria
1. INN therapeutically obsolete.
2. INN for which the benefit/cost ratio (according to national pharmacovigilance regulations) has changed in favour of risk.
3. INN that can be replaced with another approved medication with a better cost/efficacy based on daily therapeutic dose.
4. INN that changed status to OTC medicine.
5. INN with expired marketing authorisation.

produced in line with the World Health Organization recommended process for developing clinical practice guidelines and the EU Transparency Directive. The law states some broad general criteria regarding inclusion, non-inclusion and exclusion (See Box).[4] Members of the Therapeutic Strategy Committee are not accountable for the economic or public health impact of their decisions. Moreover, the process of how the reimbursement level is assigned to certain medicines is not fully transparent to the public. Furthermore, no health technology assessment criteria are used for setting price and reimbursement, although some interest has been expressed in using these in future.

There is no formal policy for generics, but as patients usually choose the product that allows the lowest level of cost-sharing, medicines whose prices are closest to the reference price are the most dispensed; generic manufacturers try to get prices close to, or below, the current reference price. This helps to drive prices down.

Other issues

Pharmaceutical legislation in Romania requires further development in terms of complexity, transparency and clarity. A new law for medicine pricing is expected by the end of 2007. The Ministry of Health expects this to lead to an overall decrease in retail prices of 15%. Not all prices will be modified by the same percentage and some might increase, but the exact price changes in each category are not yet known. The law will increase the number of countries used for reference pricing.

Each pharmacy is allocated a monthly budget threshold and must only dispense reimbursed medicines within this limit. County Health Insurance Houses are responsible for this budget allocation, based on historic sales. This may lead to inequalities widening over time; it may also reduce competition between pharmacies. This threshold is often reached before the end of the month, and thus no pharmacy in any county may be able to dispense medicines on a reimbursement basis, even if a patient presents a prescription for a medicine that would normally be reimbursed.

While one possible reason for this is insufficient pharmaceutical expenditure, another cause may relate to prescribing practices. With a lack of incentives for good prescribing practices, feedback from prescribing doctors to the NHIH is usually delayed for four to five weeks. A strategy to implement a national information technology network has been drafted with a goal to improve feedback and efficiency in measuring prescribing patterns.

Another issue is that the pharmaceutical budget is distributed between local agencies of NHIH (one for each county), based on crude population levels, but without using other resource allocation formula or risk adjustment mechanisms. Such adjustments may merit future consideration, alongside any increase in the percentage of GDP allocated to health care in general and pharmaceutical care in particular.

References

1. Parlamentul Romanâniei. Meeting of Commission for Health and Family. Bucharest: Romanian Parliament, 26 October 2006. Available at www.cdep.ro/comisii/sanatate/pdf/2006/sz102426.pdf.

2. Pharmaceutical Directorate, Romanian Ministry of Public Health. www.msf-dgf.ro

3. Government Ordinance No.1842/2006. 21 December 2006. Available at http://www.cnas.ro/?id=223

4. Order of the Ministry of Public Health No. 917 27 July 2006.

Bandolier

How Good Are We With Numbers?

Bandolier 103 featured a study that looked at literacy attainments in rheumatoid arthritis patients. Literacy is especially important because these patients often have complicated medication regimens. The study found that one patient in six would, at best, struggle with patient education material, and one in twenty could not read prescription labels. We now have some studies looking at numeracy, both in medical students and patients.

Table 1: Some definitions of health numeracy

Concept	Definition
Health numeracy	The degree to which individuals have the capacity to access, process, interpret, communicate, and act on numerical, quantitative, graphical, biostatistical, and probabilistic health information needed to make effective health decisions
Basic numeracy	Having sufficient skills to identify numbers, and to make sense of quantitative data requiring no manipulation of numbers. An example would be identifying the correct number of pills to be taken, data and time of appointments, using a phone book
Computational numeracy	The ability to count, quantify, compute, and otherwise use simple manipulation of numbers, quantities, items, or visual elements in a health context so as to function in everyday situations. An example would be using nutritional labels correctly
Analytical numeracy	This involves the ability to make sense of information, as well as higher functions like inference, estimation, proportions, percentages, frequencies, and equivalent situations. Information may be from multiple sources, and an example would be determining whether an analytical result was within the normal range, or understanding graphs
Statistical numeracy	An understanding of basic biostatistics involving probability statements, skills to compare different scales (probability, proportion, percent), to critically analyse quantitative information like life expectancy or risk, and understanding concepts like randomisation and blinding. An example would be making choices between treatments based on standard outcomes of relative or absolute risk

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First we need to have some understanding of what is numeracy. The dictionary definition is one of competence in mathematical skills to allow us to cope with everyday life, but also includes understanding mathematical terms from graphs, charts, or tables. Fortunately health numeracy has been provided with a set of definitions.[1]

Various levels of health numeracy have been defined (Table 1). The four levels start at the most basic, with statistical numeracy being that degree of numeracy that we would expect from most doctors, and quite a lot of other health professionals.

Numeracy in medical students

One way of measuring numeracy is to ask a few simple maths questions, and see how many correct answers you get. It does not need to be an intensive examination, and one set of questions used in studies of medical students and patients is shown in Table 2.[2] Most of us would expect to get the right answers to these three questions, on simple probability, and converting frequency to percentages and back again. The level is that of basic and computational numeracy in Table 1.

These questions were answered by 62 first-year medical students at the University of North Carolina at Chapel Hill Medical School who attended a risk-communication seminar. Most students answered all three questions correctly, but 5% (1 in 20) answered only one or none correctly (Figure 1).

Students were also given information about treatment choices, with results presented in different ways (relative risk reduction, absolute risk reduction, number needed to treat, and a combination). Most students (90%) correctly stated which drug worked better (comparative answer), but only 61% could work out the quantitative answer. For both, there was a strong relationship with being able to answer the simple maths questions correctly (Figure 2).

Table 2: Three simple questions to test numeracy

Question	Calculation	Correct answer
Imagine that we flip a coin 1000 times. What is your best guess about how many times the coin would come up heads?	1000 x 0.5	500
In the lottery, the chance of winning a prize is 1%. What is your best guess about how many people would win a prize if 1000 people each buy a single ticket to the lottery?	1/100 = X/1000	10/1000
In the publishing sweepstake, the chances of winning a car is 1 in 1000. What percent of tickets to the sweepstake wins a car?	1/1000 = X/100	0.10%

Figure 1: Numeracy as measured in medical students and patients

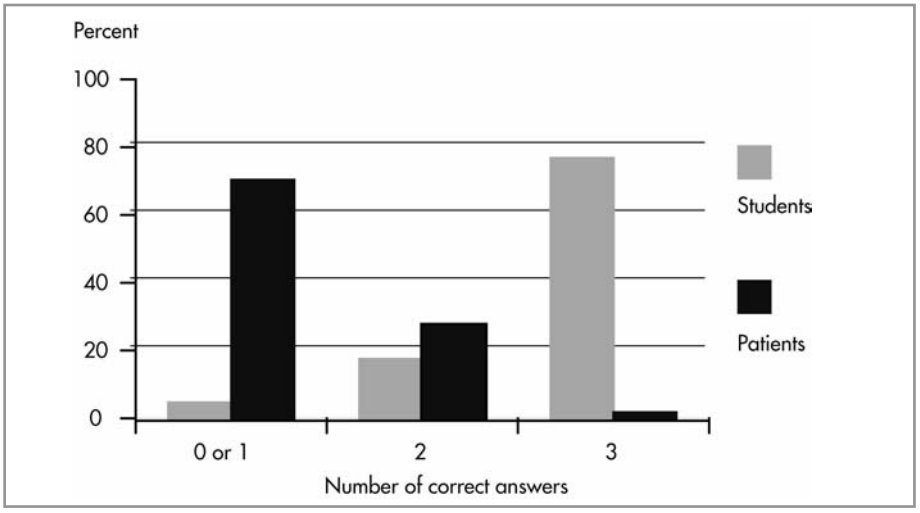
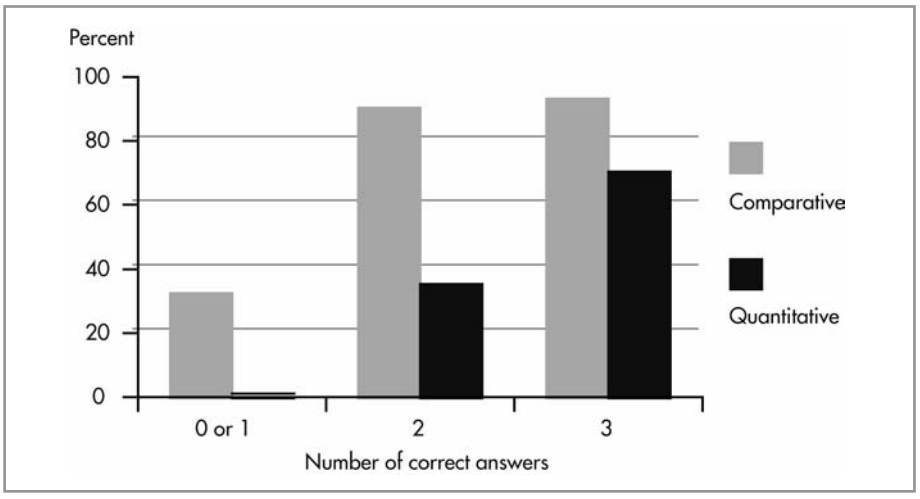


Figure 2: Students' interpretation of quantitative information according to their correct answers to numeracy questions



Numeracy in patients

The same research group performed the same tests in 257 patients aged 50 to 80 years attending for health care at an internal medicine clinic.[3] The results for numeracy are in Figure 1, and show that most patients could answer only one (30%) or no (41%) numeracy questions correctly. It was also true that whatever way information was presented to them, only 40–60% were able to determine which of two treatments was better, but fewer than 20% (1 in 5) were able to work out the quantitative difference.

Comments

There is not a huge literature on numeracy, but it is likely to be important, and at least as important as literacy. For instance, a single observational study[4] showed that patients older than 50 years attending anti-coagulation management units had significantly poorer control of INR when they had low numeracy skills, while low literacy made no difference.

But numeracy and literacy have to be taken together. A detailed paper too difficult to précis[5] asked professionals and public about ways of expressing results relating to prenatal diagnosis and chromosome abnormalities. There were huge differences in the way people responded to the same information. For instance, when asked which of 5% or 1 in 20 sounded bigger, 81% thought 1 in 20 sounded bigger. That paper is certainly worth a read for anyone teaching communication skills.

The bottom line, though, is that on limited information, we can identify that many patients and some professionals have problems with numbers. That puts even more heat on trying to explain those numbers in ways that people can understand.

References

1. Golbeck AL, Ahlers-Schmidt CR, Paschal AM, Dismuke SE. A definition and operational framework for health numeracy. *American Journal of Preventive Medicine* 2005;29:375–76.

2. Sheridan SL, Pignone M. Numeracy and the medical student's ability to interpret data. *Effective Clinical Practice* 2002;5:35–40.

3. Sheridan SL, Pignone M, Lewis CL. A randomized comparison of patients' understanding of number needed to treat and other common risk reduction formats. *Journal of General Internal Medicine* 2003;18:884–92.

4. Estrada CA, Martin-Hryniewicz M, Peek BT, Collins C, Byrd JC. Literacy and numeracy skills and anticoagulant control. *American Journal of Medical Science* 2004;328:88–93.

5. Abramsky L, Fletcher O. Interpreting information: what is said, what is heard – a questionnaire study of health professionals and members of the public. *Prenatal Diagnosis* 2002;22:1188–94.

Risk in Perspective

Harvard Center for Risk Analysis

THE COST OF IMPROVING HEALTH BY REDUCING EMISSIONS FROM PUBLIC TRANSIT BUSES

Joshua T Cohen, James K Hammitt and Jonathan I Levy

Improvement of outdoor air quality is a key priority for both the federal government and local regulatory agencies

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Introduction

Because improvement of outdoor air quality is a key priority for both the federal government and for some local regulatory agencies, standards limiting tail-pipe emissions by motor vehicles in general and urban transit buses in particular are steadily becoming more stringent.

To address regulatory and public concern over emissions, transit agencies across the United States have been investigating the effectiveness and feasibility of alternative propulsion systems for these vehicles. Alternative propulsion systems represent various changes to engine design, fuel, and exhaust treatment. In this issue of *Risk in Perspective*, we discuss a recent Harvard Center for Risk Analysis (HCRA) study that evaluates two of the most common alternative technologies now in use for urban transit buses – emission controlled diesel (ECD) and compressed natural gas (CNG). For each of these technologies, we quantify both the health benefits and resource costs. We find that CNG has a modest edge over ECD in terms of its health benefits. However, CNG comes at a substantial cost relative to ECD. The complete study appeared in the April 15, 2003 issue of *Environmental Science and Technology*. Our analysis draws on a wide range of information in the scientific literature, and was guided by input from an advisory panel that included members from academia, industry, and public transit agencies.

Alternative propulsion technologies evaluated

We consider a scenario in which a hypothetical transit agency purchasing new buses can choose among three propulsion technologies – conventional diesel (CD), ECD, and CNG. We estimate the health benefits of ECD and CNG by comparing the morbidity and mortality impacts of their emissions to the morbidity and mortality impacts of CD emissions. In particular, we estimate how much opting for ECD or CNG instead of CD would reduce the number of quality adjusted life years (QALYs) lost as the result of operating a fleet of 1,000 buses, with each bus travelling an average of 40,000 miles annually. We estimate the additional resource costs for each alternative technology relative to CD, including the cost of vehicle procurement, infrastructure improvements, and operations (fuel and maintenance). Emissions from all three types of buses contribute to global climate change, and we include the resulting damages as another monetary cost. Dividing the incremental cost by the incremental QALYs saved yields the cost-effectiveness (CE) ratio. A low CE ratio (fewer dollars spent per QALY saved) is more favourable than a high CE ratio (more dollars spent per QALY saved).

We define the ECD technology as a new conventional diesel bus equipped with both an oxidising catalyst and a continuously regenerating diesel particulate filter (DPF). A DPF traps particles and uses exhaust gases to oxidise and eliminate the material. To prevent fouling of the DPF, ECD vehicles require fuel with lower sulphur content than conventional diesel fuel. The DPF also requires annual cleaning to remove built-up ash.

CNG burns cleaner than diesel fuel. Because it is a vapour at ambient temperature, CNG must be compressed to around 3,000 pounds per square inch (psi) to carry sufficient quantities onboard, requiring stronger fuel tanks. Compression also requires additional energy and special equipment. Storage, fuelling, and maintenance facilities must be equipped with special ventilation and detection equipment to minimise the risk of an explosion if there is a gas leak.

Buses relying on other propulsion technologies could also be considered, including electric buses, hybrid buses that have electric

power trains and small fossil fuel engines, hydrogen fuel-cell vehicles (which generate electricity from hydrogen without producing harmful combustion byproducts), and more advanced diesel technologies that address other emission components. We chose to compare only the ECD and CNG technologies, for two related reasons. First, these are the most common alternative technologies used by transit authorities. For example, CNG vehicles represent around 60% of all alternative fuel transit buses purchased and New York City has plans to equip 3,500 vehicles in its diesel fleet with DPFs. Second, because these technologies are the most common, they are the only technologies for which adequate performance data are available.

Because the values of many of the parameters in our analysis are uncertain, we estimate how best case and worst case values for these parameters influence our results. We also estimate how risk may change across the US due to geographic variation in factors such as population density and atmospheric chemistry.

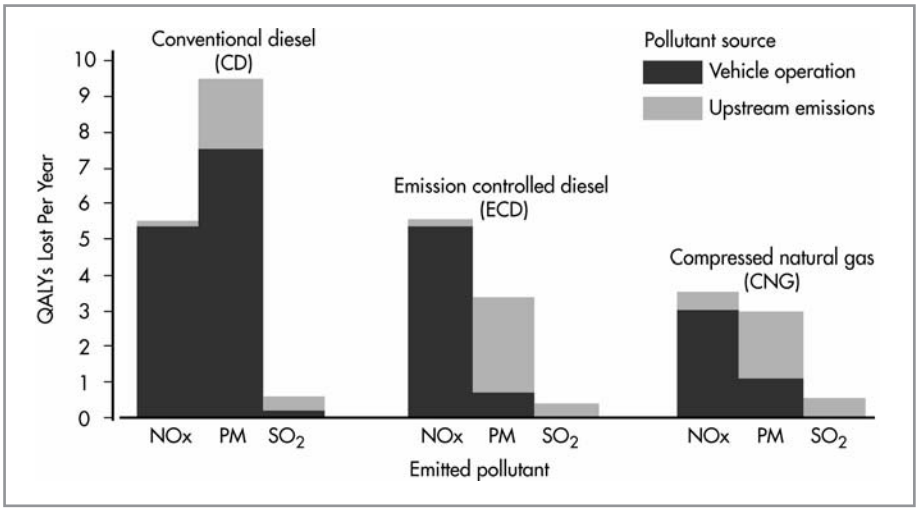
Health effects and emissions

Our analysis accounts for the health effects associated with emissions of particulate matter (PM), nitrogen oxides (NOx), and sulphur dioxide (SO_2). PM is thought to substantially increase mortality due to cardiopulmonary factors. In addition, EPA and other regulatory agencies judge that diesel PM may contribute to lung cancer, whereas it is widely assumed that CNG PM does not. Although these assumptions are both controversial, we accept both for this analysis, biasing our results in favour of CNG.

NOx is important to health because of the chemical reactions it undergoes after leaving the tailpipe. First, NOx can become a 'secondary particulate' when it is converted to nitrate and combined with ammonium, thus adding to PM exposure. Second, when it reacts with volatile organic compounds (VOCs) in the presence of sunlight, NOx generates ground-level ozone, a contributor to smog. Ozone may contribute to mortality and to the incidence of asthma. Like NOx, SO_2 also contributes to the formation of secondary PM.

Our analysis takes into account both emissions associated with vehicle operation and emissions generated by 'upstream' activities – i.e., the extraction, production, and distribution of fuel. For PM, NOx, and SO_2, up stream emissions are for the most part far smaller than corresponding emissions from vehicle operation.

Figure 1: Annual QALYs lost due to emissions from a fleet of 1,000 buses



Compared with CD, both ECD and CNG reduce PM emissions by approximately three-fourths. For NOx, CNG reduces aggregate emissions by around one-third, while ECD does not reduce NOx emissions at all. ECD reduces SO_2 emissions to a greater extent than does CNG, but the baseline emissions are so small that the contribution of SO_2 to baseline health risks is limited.

Taking all the emissions and their health impacts into account, our central estimates are that a fleet of 1,000 new CD buses would result in a loss of 16 QALYs each year. Accounting for uncertainty underlying this calculation, we estimate that this loss might be as little as 0.1 QALYs (best case bounding assumptions) or as much as 85 QALYs (worst case bounding assumptions). Replacing these buses with 1,000 ECD buses would reduce this loss by 6.3 QALYs annually (range: 0 to 41 QALYs), and replacing them with 1,000 CNG buses would reduce the loss by 8.6 QALYs annually (range: 0.01 to 65 QALYs). Figure 1 summarises these results.

Resource costs

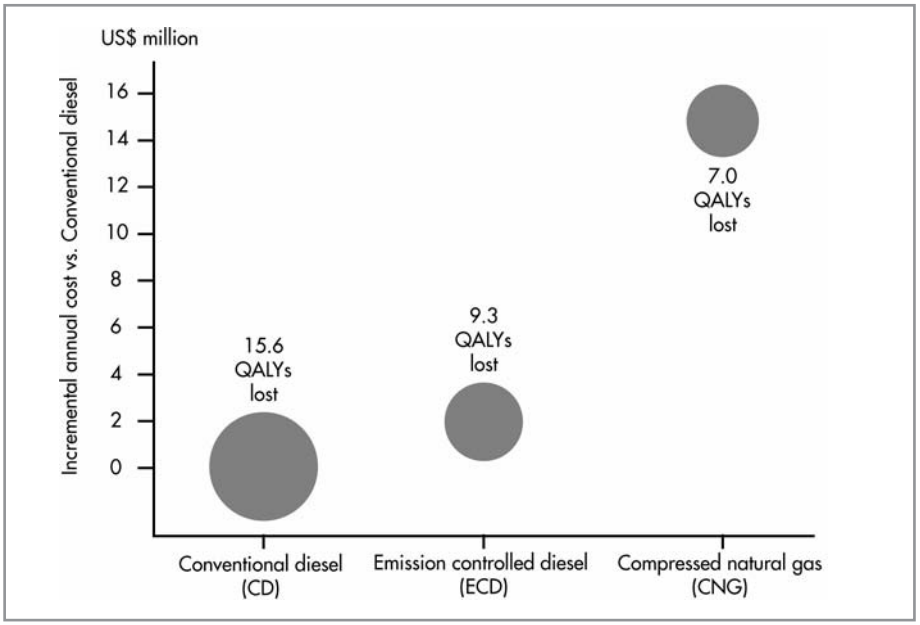
For each bus, the annualised incremental cost for ECD relative to CD is $1,700 (range: $1,300 to $2,100). The major components of that difference are the amortised cost of equipping the vehicle with the diesel particulate filter and the added cost of ultra-low sulphur fuel. Maintenance of the filter contributes a small amount as well.

The annualised incremental cost for each CNG bus is substantially higher than for ECD, ranging from $15,300 in areas with low land costs (range: $4,800 to $26,000) to $20,500 in areas with high land costs (range: $5,800 to $36,000). Land costs significantly affect overall CNG costs because of the need to provide adequate ventilation of storage, fuelling, and maintenance facilities. Transit authorities can address ventilation requirements by building single-story facilities, which can take up substantial amounts of land. Alternatively, they can build multi-story structures to reduce land requirements, but must include more sophisticated ventilation equipment. In low-cost areas, where land is readily available, we estimate the amortised incremental cost for infrastructure to be $950 per bus. In high-cost areas, the corresponding annualised estimate is $6,200.

In addition, CNG buses themselves are more expensive because of the complexity of the fuel tanks and onboard fuel-distribution system. Amortising these costs yields an annualised increment of $2,800.

Further, based on the experience of large transit agencies, we conclude that CNG's operating costs are higher than CD. Although CNG fuel is less expensive than diesel (per unit energy content), the lower efficiency of CNG engines means that the annual fuel cost for CNG is around $3,200 higher than for CD. Data from New York City suggest that the annual maintenance cost for each CNG bus is $6,000 higher than for each CD bus. (Some transit agencies have reported that maintenance costs decreased when they purchased CNG vehicles. However, inspection reveals that these agencies were comparing new CNG buses to old diesel buses, or that they reported maintenance costs net of those covered under warranty.)

Figure 2: Annual health damages and incremental costs for a fleet of 1,000 buses*



*Bubble area is proportional to QALYs lost for each technology. Cost for CNG ($15 million per year) is for areas with low land costs. For areas with high land costs, the annual incremental cost is $21 million.

Finally, the CNG fuelling infrastructure (natural gas compressors) must be maintained, adding another $2,300 in costs annually per bus.

Both ECD and CNG generate more greenhouse gas emissions than do CD vehicles. The incremental monetised damage associated with CNG ($200 per year) exceeds the corresponding figure for ECD ($30 per year), but these increments are very small compared with the acquisition, infrastructure, and operational costs for these technologies.

Cost effectiveness

Compared with CD, we estimate that ECD improves health and reduces mortality at a cost of $270,000 for each QALY saved. For CNG, the corresponding cost is $1.7 million per QALY in an area with low land acquisition costs and $2.4 million per QALY in an area with high land acquisition costs. Directly comparing the two alternatives we considered, the incremental cost effectiveness of CNG relative to ECD is estimated as $5.8 million (low land cost) to $8.4 million (high land cost).

Because of uncertainty about the appropriate values of many of the parameters in our analysis, the ranges of plausible values for the ECD and CNG CE ratios are wide. For ECD, the cost per QALY saved may be as small as $30,000 or infinite (i.e., no health benefits per incremental dollar invested). For CNG, the CE ratio ranges from $70,000 to $2 billion per QALY saved in low land cost areas, and from $90,000 to $3 billion in high land cost areas. We also find that the CE ratios depend on local atmospheric conditions and population patterns, factors that affect population exposure to air pollution.

Interestingly, two issues that garner substantial attention – the effect of diesel exhaust on lung cancer and the contribution of emissions to climate change - contribute little to our quantitative estimates. When measured in terms of lost QALYs, the impact of lung cancer, even if it is caused by diesel exhaust, is far less than the impact of PM on the cardiopulmonary mortality rate. As mentioned above, the estimated monetary value of the incremental effect of ECD and CNG on climate change is small compared with their other costs. Hence, our conclusions are not affected by these factors, no matter what plausible assumptions we choose.

Discussion

As illustrated in Figure 2, the reduction in health damages afforded by CNG compared with ECD is modest and comes at a substantial increase in resource costs. However, while cost-effectiveness provides an indication of the relative efficiency of investing in either of these technologies to improve health, it does not by itself indicate which investment, if either, is desirable in an absolute sense. Conceivably, the gains of both ECD and CNG may both be too small to justify their costs. Alternatively, it is possible that even though the reduction in health damages achieved by CNG is more expensive than the reduction achieved by ECD, this saving of 2.3 QALYs per year may be worth the added annual cost of $13 million (low land cost areas) to $19 million (high land cost areas).

One way to address this issue is to compare these technologies with other investments that improve public health. Doing so suggests that both ECD and CNG are expensive. QALYs can be saved at a lower cost by investments in the medical prevention of coronary heart disease and cancer, reduction of motor-vehicle injury trauma and fatalities, and the prevention of infectious disease. However, CE ratios for public-health investments often differ substantially across domains. For example, an analysis conducted by HCRA in the 1990s found that the median cost per QALY saved for regulations considered by different agencies were much higher for EPA ($7.6 million) than for several other agencies: Federal Aviation Administration ($23,000), National Highway Traffic Safety ($78,000), Occupational Safety and Health Administration ($88,000), Consumer Product Safety Commission ($68,000).

When compared within the domain of other clean-air policies, investments in ECD and CNG do not look as expensive. For example, results from another HCRA analysis suggest that controls on stationary air-pollution sources (for example., power plants) save lives at a cost ranging from tens of thousands to a million dollars per life year. Mobile source controls (for example, motor vehicles) cost from tens of thousands to four million dollars per life year saved. For ECD, the return per dollar invested falls within both of these ranges, while the return for CNG falls within the range of CE ratios for mobile-source programs only, and is towards the high end of this range.

Of course, economic efficiency is not the only issue that a transit agency must consider in choosing among alternative propulsion technologies. There are aesthetic considerations (diesel buses are often said to be noisy and to generate a strong, unpleasant odour), and safety issues (CNG can explode, while diesel fuel can cause environmental damage if a spill occurs). Moreover, although aggregate population risks may be small, individual impacts may be comparatively large for

those who live or work near locations where buses operate. It must also be kept in mind that our results are imprecise, as indicated by the wide range of plausible results described earlier.

Nonetheless, cost is an important issue. Spending more for each new alternative technology bus may delay the process of replacing older, dirtier buses if a transit agency's budget is limited. Alternatively, if the number of buses to be purchased is fixed, a more expensive technology drives up the purchase price, potentially taking resources from other investments. For example, spending may be reduced for other mass transportation priorities, such as improving or extending service. A model developed for the American Public Transportation Association suggests that such reductions depress public transit ridership, as people tend to switch to private vehicles in response to a decrease in the quality of public transit service. Increased use of private vehicles increases congestion and air pollution and offsets intended gains.

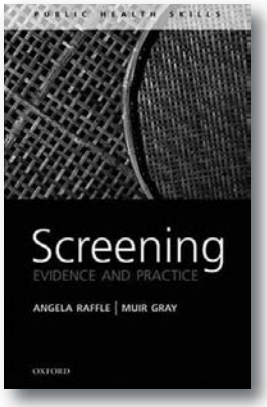
The increased use of private vehicles is one potential "adverse side effect" of spending on alternative-technology buses. Understanding whether this and other side effects offset the benefit of investing in cleaner buses depends on quantifying the technology's costs and benefits, which is the goal of the type of analysis described in this issue of Risk in Perspective. While there are other factors that influence such decisions, consideration of economic efficiency – the health return per dollar invested – is an important part of the discussion.

ADDITIONAL READING

Cambridge Systematics Inc. and Economic Development Research Group. *Public Transportation and the Nation's Economy: A Quantitative Analysis of Public Transportation's Economic Impact*. Underwritten by the American Public Transit Association, 1999. Available at: http://www.edrgroup.com/pages/pdf/Public-Transport.pdf.

Cohen JT, Hammitt JK, Levy JI. Fuels for urban transit buses: a cost-effectiveness analysis. *Environmental Science and Technology* 2003;37:1477–84.

US Environmental Protection Agency (EPA). *Regulatory Impact Analysis: Control of Emissions of Air Pollution from Highway Heavy-duty Engines*. EPA420-R-00-010. Office of Air and Radiation, 2000.



Book Review

Screening: Evidence and Practice

Angela Raffle and JA Muir Gray

Oxford University Press, Oxford, 2007

ISBN 978-019921449-5

Paperback, 336 Pages, £24.95

This is very good book with some outstanding chapters. The approach to the problem of screening is novel and differs from that of many other authors in this field reflecting their background. Raffle is a practising public health physician, who has had responsibility for cervical cancer screening in the Bristol area for many years. Muir Gray, also a public health physician, has been Programme Director of the UK National Screening Committee for the past eleven years.

Raffle exemplifies the characteristics of what public health physicians should do. With her responsibilities for screening services in a large community in South-West England, she has analysed the necessary characteristics for the delivery of quality public health services, undertaken the required measures and been active in the communication of these. Muir Gray brings to the topic wide knowledge and appreciation of the national policy perspective.

Praise for this work is not limited to this review. Apart from the foreword, by the English Chief Medical Officer, there are three endorsements from eminent individuals in Australia, the Netherlands and the USA – a novel initiative.

The first chapter is intended to give a brief historical account of how screening began. This concentrates on the history of periodic health examinations. This, perhaps, is the only major reservation I have of this book. The importance of screening for tuberculosis, and mass miniature radiography, is neglected. A pity – because screening services for disease may not be only considered in the improvement of health, but also for health protection and quarantine. This concentration on chronic conditions such as cancer and cardiovascular disease means that consideration of the issues of screening for infective conditions such as tuberculosis and HIV are omitted.

Subsequent chapters consider the definition of screening and basic principles, what it does, including the measurement of test performance, how screening needs to be implemented, necessary measures for quality control, as well as the management of screening. Perhaps the best, and most novel chapter, is the last, which examines in detail the way in which screening policy is formulated at national and local levels. This chapter examines in detail the various pressures such as ethics, values and beliefs as well as the use of evidence. This chapter has general applicability to all health policy making, not only screening, and illustrates the authors' experiences at national, regional and local levels.

Each chapter is illuminated by case examples as well as tests that the reader may take to determine his/her appreciation of the chapter. The illustrative examples do not stop at description of medical/technical matters but also illustrate legal issues. This book is of particular relevance to public health practitioners responsible for the design and delivery of screening services but should also be read by all those involved in decisions on pubic health services.

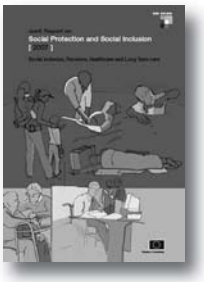
Review by Walter Holland, Emeritus Professor of Public Health, LSE Health, London School of Economics and Political Science

NEW PUBLICATIONS

Eurohealth aims to provide information on new publications that may be of interest to readers. Contact Philipa Mladovsky at p.mladovsky@lse.ac.uk if you wish to submit a publication for potential inclusion in a future issue.

Joint Report on Social Protection and Social Inclusion: Social inclusion, pensions, healthcare and long term care

European Commission, Directorate-General for Employment, Social Affairs and Equal Opportunities Unit E2 (2007)



Freely available at:
http://ec.europa.eu/employment_social/social_inclusion/docs/2006/joint_report_en.pdf

418 pages

ISBN 978-92-79-05561-4

The report provides a broad overview of social protection and inclusion in the EU, drawing on the material provided by Member States in their National Reports on Social Protection and Social Inclusion, as well as analysis provided by independent experts and a set of common indicators reporting trends.

The document is divided into two parts. The first relates to the common objectives for promoting social cohesion and ensuring effective interplay between the Open Method of Coordination and the EU's Lisbon and Sustainable Development Strategies. It begins with an analysis of the economic and demographic context in which measures to combat poverty and exclusion and to ensure the adequacy, quality and sustainability of social welfare are being implemented. It goes on to examine the social situation across the fields of social inclusion, pensions, health and long-term care; the health dimension looking at the indicators of levels of health across the Union and at health care spending, health status and inequalities.

The second half systematically examines the current systems and policy strategies relating to social inclusion, health, long-term care and pensions of the 27 Member States. It particularly explores how Member States set out to address inequalities in access to the resources, rights and services needed for full participation in society.

Contents:

Inequalities in health in Scotland: What are they and what can we do about them?

Sally Macintyre

Occasional Paper Number 17, October 2007, MRC Social and Public Health Sciences Unit

16 pages

Freely available online at:
http://www.sphsu.mrc.ac.uk/files/File/reports/OP017.pdf

The report outlines key facts about socio-economic inequalities in health in Scotland, presenting mortality and morbidity data by socioeconomic group. It goes on to highlight policy issues, such as distinguishing between upstream and downstream interventions, the importance of multisectoral interventions and area based approaches. The report also reviews evidence on the effectiveness of policies aiming to reduce health inequalities, pointing out that disadvantaged groups tend to be harder to reach and find it harder to change behaviour.

Summarising lessons learnt from research on how best to reduce inequalities in health, the paper recommends putting a high priority on changes in the physical and social environment (for example, building and planning regulations, fiscal policies, and reducing price barriers to health-promoting goods and services), rather than information-based campaigns or interventions which require people to opt in. The report ends by arguing that because targeting the already advantaged may produce more aggregate health gain, value judgments may have to be made about the relative priority to be given to creating aggregate health gain as compared to reducing inequalities.

Contents:

WEBwatch

Please contact Philipa Mladovsky at p.mladovsky@lse.ac.uk to suggest websites for potential inclusion in future issues.

The health programme of the Portuguese Presidency of the EU

http://www.eu2007.min-saude.pt/PUE/en/conteudos/programa+da+saude/presidencys.htm

This website contains information on Portuguese Presidency initiatives in the field of health. It provides information on meetings, publications, technical initiatives, news, reports and other documents, as well as links to other Presidency websites. It also features a newsletter and a calendar of events. The website is available in Portuguese and English.

International Society for Pharmacoeconomics and Outcomes Research (ISPOR)

http://www.ispor.org

ISPOR promotes the science of pharmacoeconomics and outcomes research (the scientific discipline that evaluates the effect of health care interventions on patient wellbeing, including clinical outcomes, economic outcomes and patient-reported outcomes) and aims to facilitate the translation of this research into useful information for health care decision makers. The English language website provides information on meetings, publications, research and educational courses, as well as information on job opportunities in the pharmaceutical sector.

The European Health Management Association (EHMA)

http://www.ehma.org

EHMA is a network of health organisations throughout Europe. Its objective is to improve health through better management, partly through advocacy with the European Commission on behalf of members, and partly by providing services on their website. These include: news and events; a monthly bulletin on health-related news; briefings on EU health policy; advice on EU funding opportunities; and publications on EU health policy. Some services are available to members only, but the remainder of the English language website is available to non-members.

Association Internationale de la Mutualité (AIM)

http://www.aim-mutual.org

AIM provides information on developments in the field of social protection and health care at European and international levels. The website contains information on the members of AIM as well as position papers, a programme of events, reports and links on topics related to social protection and health care. It is available in English, French and German.

The BBVA Foundation

http://w3.grupobbva.com/TLFB/TLFBindex.htm

The BBVA Foundation undertakes and commissions research in the social sciences, biomedicine and the environment, with priority being given to key challenges and opportunities faced in the new millennium. The website provides access to detailed information on programmes, including one on biomedicines, health and the health care system and another on demographic change, the family and social integration. Both provide information on current and completed projects and publications. The Foundation also has a working paper series, many of which are on health-related issues. All working papers as well as a regular newsletter are freely downloadable. The website is available in Spanish and English.

The Robert Koch Institute (RKI)

http://www.rki.de/EN/Home/homepage__node.html

The Robert Koch Institute serves the German Federal Ministry of Health as a central scientific institution in the field of biomedicine. Its tasks include protection against infectious diseases, analysis of the health situation in Germany and safety assessment of genetic engineering methods and products. The English language web pages contain selected items from its German language site and are being continually expanded. A few reports are downloadable in English, but it mostly provides English language abstracts and summaries of German language reports and research projects.

News

Press releases and other suggested information for future inclusion can be e-mailed to the editor
David McDaid
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EUROPEAN MONITOR

New EC Health Strategy launched

On 23 October the European Commission adopted a new health strategy, '*Together for Health: A Strategic Approach for the EU 2008–2013*'. Building on current work, this strategy aims to provide, for the first time, an overarching strategic framework spanning core issues in health, as well as in health in all policies and global health issues. The strategy aims to set clear objectives to guide future work on health at the European level, and to put in place an implementation mechanism to achieve those objectives, working in partnership with Member States.

The strategy focuses on four principles and three strategic themes for improving health in the EU. The principles include:

– taking a value-driven approach,

– recognising the links between health and economic prosperity,

– integrating health in all policies, and

– strengthening the EU's voice in global health.

The strategy notes that the EC's important role in health policy has been reaffirmed in the Reform Treaty agreed by EU Heads of State and Government in Lisbon on 19 October 2007, which proposes to reinforce the political importance of health.

A new overall aim on supporting citizens' wellbeing is expected, as well as an encouragement of cooperation amongst Member States on health and health services. Work on health at Community level adds value to Member States' actions, particularly in the area of the promotion of quality, and the launch of a number of health-related agencies.

However, there are several growing challenges to the health of the population which require a new strategic approach.

The three strategic themes include demographic changes and population ageing, which the Strategy notes are "changing disease patterns and putting pressure on the sustainability of EU health systems. Supporting healthy ageing means both promoting health throughout the lifespan, aiming to prevent health problems and disabilities from an early age, and tackling inequities in health linked to social, economic and environmental factors." Proposed actions include measures to promote the health of older people and the workforce and actions on children's and young people's health, as well as development and delivery of actions (in partnership with Member States) on tobacco, nutrition, alcohol, mental health and other broader environmental and socioeconomic factors affecting health. New guidelines on cancer screening and a communication on European action in the field of rare diseases are planned by the Commission, while there will also be a follow up of the Communication on organ donation and transplantation.

Major threats to health including pandemics, major physical and biological incidents, bioterrorism and climate change are another area of concern. A core part of the Community's role in health is to coordinate and respond rapidly to health threats globally and to enhance the EC's and third countries' capacities to do so. Actions will strengthen mechanisms for surveillance and response to health threats, including a review of the remit of the European Centre for Disease Prevention and Control and examination of the health implications of adaptation to climate change.

A third overarching theme is to support what the Commission calls 'dynamic health systems and new technologies'.

Proposed actions include support for Member States in managing innovation in health systems and in the implementation and interoperability of e-health solutions. The Strategy also calls for a Community-wide framework for safe, high quality and efficient health services, noting that "new technologies must be evaluated properly, including for cost-effectiveness and equity, and health professionals' training and capacity implications must be considered. New and unfamiliar technologies can generate ethical concerns, and issues of citizen's trust and confidence must be addressed."

The White Paper and other background documentation are available at http://ec.europa.eu/health/ph_overview/strategy/health_strategy_en.htm

Health Programme 2008–2013

With a budget of €321.5 million, the Second Programme of Community Action in the Field of Health 2008–2013 will come into force from 1 January 2008. This follows on from the first programme (2003–2008) which financed over 300 projects and other actions. There are three principle objectives: to improve citizen's health security; to promote health, including the reduction of health inequalities; and to generate and disseminate health information and knowledge.

In terms of health security, proposed actions include developing strategies and mechanisms for preventing, exchanging information, on and responding to health threats from communicable and non-communicable diseases, as well as health threats from physical, chemical or biological sources, including deliberate release acts; taking action to ensure high-quality diagnostic cooperation between Member States' laboratories; supporting existing laboratories carrying out work with relevance to the Community; and working on the establishment of

a network of Community reference laboratories.

In terms of promoting the safety of citizens, measures will include help to enhance the safety and quality of organs and substances of human origin, blood, and blood derivatives; and then promoting their availability, traceability and accessibility for medical use, while respecting Member States' responsibilities as set out in Article 152(5) of the Treaty.

To promote health, action will be taken on health determinants such as nutrition, alcohol, tobacco and drug consumption, as well as social and environmental determinants. There will be measures on the prevention of major diseases of particular significance in view of the overall burden of diseases in the Community, and on rare diseases, where Community action, by tackling their determinants, can provide significant added value to national efforts; reducing health inequalities across the EU; and actions to increase healthy life years and promote healthy ageing.

Actions to foster dissemination and knowledge exchange will include further development of a sustainable health monitoring system with mechanisms for the collection of comparable data and information, with appropriate indicators.

The text of the decisions adopted jointly by the European Parliament and the Council of the European Union can be viewed at http://eur-lex.europa.eu/LexUriServ/site/en/oj/2007/l_301/l_30120071120en00030013.pdf

Commission thinking ahead on health challenges

DG Health and Consumer Protection has published a '*Future Challenges paper: 2009–2014*'. This paper provides a 'draft vision' of the main challenges that we may face under the lifespan of the next Commission. It is built on the views of many Health and Consumer Protection officials and the input of a number of external experts.

Four drivers of change were identified (governance, consumer confidence, globalisation and changing society) and the scenarios were developed on the basis of uncertainties linked to these drivers. These scenarios were used during internal workshops held between January and May 2007. Questions raised during these workshops included issues concerned with nanotechnologies, consumer behaviour, ethical consumption and health equity. The results of the workshops were then used to draft the '*Future Challenges*' paper.

Issues that the paper flags up include: will consumers have confidence in what we purchase in a supermarket? Will consumers be increasingly looking for ethical or local products? Will citizens live longer and healthier? Will consumers spend even more time on the internet looking for information or making a purchase? What are the different future scenarios? What does it mean for us? How should we prepare ourselves pro-actively?

The paper is now being widely circulated inside the Commission and externally and comments may be sent by the end of December to sanco-futures@ec.europa.eu

The Future Challenges Paper can be downloaded at http://ec.europa.eu/dgs/health_consumer/events/future_challenges_paper.pdf

Musculoskeletal disorders still the most widespread work-related diseases

Musculoskeletal disorders (MSDs) remain the most common work-related diseases, according to a new comparative report '*Managing Musculoskeletal Disorders*' published by the European Foundation for Living and Working Conditions' European Working Conditions Observatory (EWCO). The results, which constitute the first secondary study based on the Foundation's fourth European Working Conditions Survey, were presented to European social policy-makers at a high-level conference, under the auspices of the Portuguese EU Presidency, in Lisbon on 11–12 October 2007.

MSDs, like backache or muscular pain of the shoulders, neck or limbs, are the most often reported symptoms of work-related ill health. The report found that MSDs were associated with strenuous working conditions and physical strain, such as tiring and painful working positions, repetitive movements, carrying heavy loads and poorly designed workstations. Work intensification and stress lead to increased occurrences of MSDs. Surprisingly, job rotation and team working are also associated with a higher incidence of MSDs. Lean production models require workers to perform repetitive tasks at a higher work pace, resulting in a higher prevalence of MSDs. Enhanced autonomy over working methods, work pace and choice of breaks is associated with a reduction of MSDs. The risk is lowered where there is training provided by employers and consultation about working conditions and about organisational factors.

MSDs are differently defined in different Member States, making it tricky to investigate their prevalence or to establish Europe-wide trends. Some definitions refer to body parts, like WRULD (work-related upper limb disorders), while others refer to causes, like RSI (repetitive strain injuries). Moreover, there is a lack of homogeneous data or standards in monitoring MSDs. Relatively few countries report on the direct costs of MSDs, like sick leave and disability benefits, or indirect costs like lost productivity. The study outlines good practice of interest to policy-makers, employers and workers alike.

The report and more information on the high-level conference are available on www.eurofound.europa.eu

European countries adopt milestone declaration on tuberculosis

In Berlin on October 22 over 300 delegates at the WHO European Ministerial Forum '*All against Tuberculosis*' adopted the Berlin Declaration on Tuberculosis, which describes the disease as "an increasing threat to health security in the WHO European Region". The Declaration calls for urgent action to halt and reverse the high levels of tuberculosis (TB), including its man-made multi-drug-resistant (MDR) and extensively drug-resistant (XDR) strains. In the Declaration, Member States and international partners commit themselves to providing more political support and resources to control and eventually eliminate the disease.

In 2005, there were 445, 000 new cases of TB and 66,000 TB-related deaths in the Region. Of the fifty three countries in the Region, eighteen have a high TB burden and thus are of high priority for TB control: Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, the Republic of Moldova, Romania, the Russian Federation, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan. The disease is not

confined to one part of the Region: even in some countries with a relatively low burden there has been a reversal of the previous decline. Moreover TB is the most prevalent cause of illness and death in people living with HIV/AIDS in the Region, and few countries address TB/HIV co-infection in a comprehensive way.

The Forum, which sought to place TB control higher on public health agendas, attracted health ministers and high-level decision-makers from forty-nine of the fifty-three Member States in the WHO European Region, along with representatives from other United Nations bodies, intergovernmental agencies and nongovernmental organisations (NGOs). The agenda of the Forum addressed current challenges facing health systems in responding to TB and achieving Target Eight of Millennium Development Goal (MDG) Six: to have halted and begun to reverse the incidence of TB by 2015.

At present, the European Region is the only WHO region other than Africa where TB rates are declining too slowly to reach Target Eight. The Declaration sets out several directions to speed up action, mainly relating to each country's responsibility to strengthen political will, public health and social services systems, human resource capacity, TB surveillance and monitoring and intersectoral collaboration, and to the need for a Region-wide approach to control the disease, which respects no borders. Allocating more funding from appropriate multilateral mechanisms at the global and European levels is also important.

While recognising previous achievements, the Declaration calls for more action in specific areas. Some actions, such as investing in and strengthening health systems for better TB control, form part of a Region-wide commitment for the first time. Others are well known: applying the high-quality directly observed treatment, short-course (DOTS) strategy launched by WHO in 1995; addressing MDR-, XDR- and HIV-related TB, removing stigma and promoting research into new diagnostic methods and tools, drugs and vaccines.

A mechanism involving the European Union, other organisations, civil society, communities and private sector will be put in place to ensure that the Declaration is implemented efficiently and promptly. Progress will be assessed at the regional level every second year, starting in 2009.

The process of developing the Declaration took over a year. The WHO Regional Office for Europe consulted countries and partners in devising and revising drafts. The consultation in The Hague, Netherlands on 6 July 2007 was organised in collaboration with the KNCV Tuberculosis Foundation.

Speaking about the Declaration, Dr Marc Danzon, WHO Regional Director for Europe, said "will this Declaration make a difference to the more than 445,000 TB patients in the WHO European Region? It will if governments carry out the decisions made in Berlin. And we in WHO are committed to helping with programmes that target areas where we have something substantial to contribute and where we can make a difference. The good news is that many of the challenges that have been pointed out in Berlin can be tackled with good political will and commitment. The reason we called this Forum was to draw attention to TB problems that health systems in our Member States have to face so that governments can do something about them."

Dr Jorge Sampaio, the United Nations Secretary-General's Special Envoy to Stop TB and former President of Portugal, added that "European ministers are today demonstrating their commitment to fighting TB through their participation in this forum. This event is an important step towards greater international partnership and coordination."

On behalf of the host country, German Federal Minister of Health, Ulla Schmidt stressed that the "successful fight against TB is always rooted on two levels: medical progress and support by public health policy; one is unthinkable without the other. Germany has already bundled TB-related activities for World TB Day this year in March, and run a TB symposium. Today's Ministerial Forum in Berlin gives the political signal for an enhanced fight against TB."

More information on the Ministerial Forum can be found at http://www.euro.who.int/tuberculosis/TBForum/20070621_1

EU and US harmonise 'orphan drugs' approval procedures

The European Commission, the European Medicines Agency (EMEA) and the United States Food and Drug Administration (FDA) adopted on 26 November 2007 a common application form for drug developers seeking approval for orphan medicines on both sides of the Atlantic. Both drug administrations will, however, continue conducting independent reviews to ensure compliance with their respective scientific requirements.

Rare diseases are defined as those affecting fewer than five in 10,000 people in the EU and fewer than 200,000 people in the USA. Companies are reluctant to spend their resources on the development of drugs for such rare conditions, as they expect relatively low profits from sales and, in some cases, a financial loss, when the costs of research and development of these drugs are taken into account.

Some thirty million EU residents and twenty five million Americans suffer from more than six thousand rare diseases. Realising that some potentially promising orphan medicinal products for rare diseases would not be developed, the Orphan Drug Act was enacted in the USA in 1983 and the European Union adopted its Regulation on Orphan Medicinal Products in 1999. These legal frameworks aim to provide regulatory and financial incentives, such as protocol assistance, and marketing exclusivity, to sponsors to develop and market orphan medicinal products.

To be eligible for receiving orphan incentives, sponsors of orphan medicines have had to submit separate applications for orphan designation to the EMEA and to the FDA using different submission formats to satisfy the respective regulatory requirements. These different formats have imposed an additional burden on sponsors. Hence, the parties have agreed to harmonise the application form to simplify part of the orphan medicines designation process.

This common application format will now allow sponsors to apply to both jurisdictions at the same time with one application. A common format will also establish a favourable environment for the EMEA and FDA to share common experiences and gain an understanding of the similarities and differences of the

process of obtaining orphan designation in the two regulatory systems.

The common application form contains a section for common information required by both the EMEA and the FDA. It also has sections for requirements unique to each agency. A sponsor who wants to submit an orphan designation application to EMEA alone may also use this form. The EMEA and the FDA will still conduct independent reviews of such submissions to assure the data submitted meet the legal and scientific requirements of their respective jurisdictions.

This initiative follows an agreement made in June 2007 between the Commission, EMEA and FDA to expand transatlantic regulatory co-operation on several issues to reduce unnecessary differences in regulations and associated costs for industry and consumers.

The European biotech industry has welcomed the common application form for orphan drugs and awaits further transatlantic harmonisation in the field. Another twenty eight areas for simplification in the approval and marketing authorisation of medicines were presented to EU and US authorities by the industry during a transatlantic workshop on administrative simplification in medicines regulation on 28 November 2007.

The common application form is available at http://ec.europa.eu/enterprise/pharmaceuticals/orphanmp/doc/annex2_application-form.pdf

Countries start negotiating a European charter on health systems

Experts met in Bled, Slovenia on 19–20 November 2007 to discuss how people's increasingly complex health needs require a change in the balance of professional and patient involvement in care. The meeting also provided a forum for discussing a European charter on health systems, currently under development by Member States in the WHO European Region. Its objective is to provide guidance and a strategic framework for strengthening health systems throughout the Region. This process is led by a charter-drafting group of experts from Member States.

As people live longer and can be treated for long-term conditions, but are exposed to modern lifestyle risk factors, the burden of disease that health systems must tackle has changed. Diseases including heart disease, diabetes and asthma, some mental disorders, cancer, certain disabilities and impairments, as well as some communicable diseases such as HIV/AIDS, require management over a period of years or decades.

Today health systems that have traditionally dealt with people's acute, short-term health needs must change and adapt to this new reality. As managing chronic disease is not about cure but enhancing quality of life and minimising symptoms long term, patients should clearly take an active role in managing their illness.

"Patient empowerment is vital for health systems to be responsive and adapt to people's needs. Yet we must also ensure that the weakest in society, indeed those who so often require health care most, are not left behind. WHO is committed to helping countries find effective ways of providing professional care and improving information and self-management for all patients. I hope that these early discussions on a European charter on health systems will lead in the right direction," said Dr Marc Danzon, WHO Regional Director for Europe.

Countries increasingly recognise that addressing diseases early reduces the pressure on health systems. This shifts the focus from treatment to prevention, which also has economic repercussions. In the United Kingdom, for example, it has been estimated that the financial needs for health care projected for 2022 will differ by €50 million, depending on whether the health of the population improves according to the most optimistic or pessimistic estimates.

The experts meeting in Bled also considered strategies that ensure the coordination and continuity of care, both of which are central to ensuring the cost-effective and responsive delivery of services. The meeting emphasised the role of integrating health system services in cancer control, and also learnt from work under way, in preparation for the Slovenian presidency of the European Union in 2008, on fighting against cancer in Europe.

The findings from the meeting will also contribute to the agenda of the WHO European Ministerial Conference on Health Systems: '*Health Systems, Health and Wealth*', to be held in Tallinn, Estonia, in June 2008. The charter is also expected to be submitted for adoption by Member States at the Conference in Tallinn.

Further information on the Tallinn Conference is available at http://www.euro.who.int/healthsystems2008

ECJ NEWS

Commission refers Finland to the European Court of Justice a second time over tobacco for oral use

On 24 October the European Commission decided to refer Finland to the European Court of Justice (ECJ) for a second time for failing to comply with an earlier judgement by the European Court of Justice on 18 May 2006 concerning tobacco for oral use in the Åland Islands, an area of Finland which enjoys extensive autonomy over most issues, including health matters.

The Court's judgment in this case (C-343/05) confirmed Finland's failure to comply with Article 8 of Directive 2001/37/EC on the manufacture, presentation and sale of tobacco products, which prohibits the placing of tobacco for oral use on the market. This includes "all products for oral use, except those intended to be smoked or chewed, made wholly or partly of tobacco" and includes 'snus' – a form of moist snuff used in the Åland Islands. The Commission will ask the Court to impose on Finland a lump-sum fine of €2,029,536 and if Finland fails to comply before the judgment, a daily penalty payment of €19,828.80.

Because of their special status, the Åland Islands had to adopt their own legislation in order to comply with Directive 2001/37/EC. In 2002, as the Åland Islands had not yet transposed Article 8 of that Directive, the Commission started an infringement procedure. In 2005, given that the Åland Islands had still taken no measures to comply with their obligations, the Commission referred the case to the Court. On 18 May 2006 the Court concluded in its judgment in case C-343/05 that by failing to ensure transposition by Åland of Article 8 of Directive 2001/37/EC and observance on vessels registered in Finland of the prohibition on placing on the market of snuff laid down by that

provision, the Republic of Finland has failed to fulfil its obligations under the EC Treaty and Directive 2001/37/EC.

Only in January 2007 did the Åland Islands, after the opening of a second infringement procedure under Article 228 EC, adopt new legislation aiming to comply with the judgment. However, that legislation the EC deems still fails to implement the above Directive because it only prohibits oral tobacco known as 'snus' from entering the market, rather than oral tobacco in general, as foreseen in the EU Directive; and in relation to the selling of oral tobacco on vessels, the law limits its application to vessels operating within Finnish territorial waters. This would allow the sale of oral tobacco on vessels registered in the Åland Islands, once these vessels exit Finnish territorial waters.

The Commission will only be satisfied with a ban without restrictions. It has also stressed that the sales of 'snus' on vessels not only affect the 25,000 residents of Åland but also tourists from other parts of Finland and other Member States. In addition, both Finland and Sweden have signed and ratified the United Nations Framework Convention on Tobacco Control (FCTC), and therefore have legal obligations under international law to cooperate in favour of tobacco control.

Tobacco is the single largest cause of avoidable death in the European Union, accounting for over 650,000 deaths each year. It is estimated that 25% of all cancer deaths and 15% of all deaths in the Union could be attributed to smoking. Tobacco for oral use contains particularly large quantities of carcinogenic substances.

Commenting on this decision, European Health Commissioner Markos Kyprianou said that "the Commission decision underlines that given the health risks linked to the use of oral tobacco, the Commission has no tolerance for allowing the placing on the market of that product. We cannot accept that the prohibition of placing of tobacco for oral use on the market is not transposed or implemented by Member States or even by parts of Member States. Only the consistent and continuous application by all Member States of all Community provisions relating to tobacco can achieve our goals in fighting tobacco."

COUNTRY NEWS

Netherlands: Availability of medical cannabis for scientific and medical research

Since 2003, patients have been able to obtain cannabis on prescription. It is cultivated under government supervision. Ab Klink, Minister of Health, Welfare and Sport, wants a five-year extension of the availability of medicinal cannabis for scientific and medical research. Mr Klink believes that medicinal cannabis should simply be a registered medicine. His aim in extending the availability is to give the development of cannabis-based medicine a serious chance of succeeding. Last year a Dutch company began work on developing such a medication. The work, which will take several years to complete, may provide scientific data and understanding into the balance between the effectiveness and safety of medicinal cannabis.

It will continue to be possible for patients to obtain medicinal cannabis from pharmacies on prescription, for example as a painkiller. If a registered alternative comes on the market in the coming five years, the minister will review the need for this supply. To date, demand for medicinal cannabis has been low, in part because of the availability of similar products at a third of the price in 'coffee shops', where it remains illegal but tolerated if sold in small amounts.

In a letter to Parliament, Mr Klink stated that "this development track will take years, but it can yield scientific evidence and give insight into the balance between safety and effectiveness of medical cannabis." Klink conceded that the Bureau for Medical Cannabis, the body that licenses the growing of medical cannabis, would make a loss this year of approximately €200,000 and said he hoped a drug under development would eventually replace cannabis and the need for official growers.

Pro-cannabis campaigners continue to call for full legalisation and claim that this would lead to better labelling of the plant's chemical contents. Currently the 'coffee shops' have no way to legally source their products. Many are supplied by mini-plantations hidden in residential areas, which may be a fire hazard.

Amsterdam benefits from tourists who come to smoke cannabis, but this also is a drain on the emergency services who have to cope with smokers affected by unusually potent drugs. Border towns also suffer problems from 'drug tourists' who travel from neighbouring Germany and Belgium and nearby France to stock up on weed.

Under the previous conservative government, Parliament was dissuaded from outright legalisation by fears that it would lead to a confrontation with the European Union. According to data compiled by the Netherlands' Trimbos Institute for Mental Health and Addiction, after thirty years of the Dutch tolerance policy, usage rates are above those in Germany and the Scandinavian countries, but below those of France, Britain and the United States.

Finland: Conference reports alcohol responsible for 15% of early deaths in EU

Alcohol use increases the risk of several types of cancer and is a significant cause of premature death in EU countries. The hazard it poses to health outstrips any health benefits it may have.

This is according to Professor Jürgen Rehm, who addressed a conference held in Espoo, Finland on 15 November that concluded a 2004–2007 alcohol programme run by the government. The programme sought to cut the harmful effects of alcohol use and involved a wide range of organisations and sectors of society.

Professor Rehm said that alcohol use has clear links to the risk of cancer of the lips, throat and mouth, larynx, oesophagus, liver, small and large intestine and, in women, breast cancer. He said that although alcohol use was increasing among women in EU countries, its harm is most apparent among men.

In Central and Eastern Europe it is responsible for 15%, and in other parts of the Community 12%, of premature deaths. Rehm said that worldwide alcohol use is increasing most in more densely populated countries. It is also linked to the spread of chronic diseases and rising accident rates involving inebriated people.

Alcohol use in Finland has increased. Per capita consumption of pure alcohol increased from 6.7 litres in 1996 to 8.2 litres in 2005. And yet over the same

period time spent on alcohol production and retailing dropped from 29,000 to 27,000 working years.

Scotland: Health and Wellbeing budget outlined

Patient-focused services and investment aimed at helping Scots live longer and healthier lives with reduced inequalities are at the heart of the Health and Wellbeing spending plans outlined on 14 November by Cabinet Secretary for Health and Wellbeing Nicola Sturgeon.

The Health and Wellbeing portfolio is to be responsible for public spending of £11.2 billion in 2008–09, or £2,200 for every person living in Scotland, rising to £12.2 billion in three years time. This comes amid what the Scottish Government believes to be the tightest UK spending settlement since devolution. Ms Sturgeon said it was vital to Scotland's economic future that every penny of this funding supported people in leading longer and healthier lives, with a particular focus on areas and communities with the worst health records. She acknowledged that the priority would be "to focus on measures which improve health and prevent illness. There can be no doubt that reducing alcohol and tobacco abuse leads to healthier lifestyles, so these will be key spending priorities over the next three years."

To help achieve a healthier Scotland, the 2007 spending review includes £350 million of new money on health improvement and better public health, including £85 million over three years to reduce harm done by alcohol, £3 million a year on further action to reduce smoking and a £11.5 million a year programme on diet and physical activity for health and to prevent obesity. There is also an injection of £270 million to ensure that by the end of 2011, nobody will wait longer than 18 weeks from GP referral to treatment for routine conditions, and £30 million (£10 million each year) to ensure more flexible access to primary care.

Investment in prevention, screening and early detection of serious illnesses are also key priorities, with a new immunisation programme to protect women against cervical cancer costing £64 million, a commitment of £53 million to screen people admitted to hospital for MRSA and continued action to help prevent the spread of infection, and a £41 million national screening programme to detect serious illnesses early.

£97 million will be provided to phase out prescription charges over a three year period, while £134 million will be invested in sport to increase participation and improve sporting performance, contributing to a range of outcomes including better physical and mental health.

Minister Sturgeon also indicated that "tackling the misuse of alcohol in Scotland is a significant challenge, not least because of the tragic effects that misuse can have in terms of heart and liver disease, cancer and problems in families and communities" She added that "£85m of additional investment will fund a radical range of measures to reduce alcohol harm as part of a forthcoming long term strategy."

Reducing health inequalities is also important for the Minister, who noted that the "spending plans target resources in particular at communities most at risk of poor health. They allow us to increase the supply of good quality, sustainable housing, to tackle poverty and deprivation at its roots, and to promote equality, as well as strengthening primary care health care services in our most deprived areas and expanding early years support for those most in need."

The full text of the Scottish Budget and Spending Review 2007 by Finance and Sustainable Development Secretary John Swinney can be accessed at http://www.scotland.gov.uk/News/This-Week/Speeches/spendreview07

Spain: Strengthening pharmacovigilance of medicinal products

The Council of Ministers has approved a new Royal Decree on 11 October 2007 which develops pharmacovigilance of medicinal products for human use. This Royal Decree develops the Law of Guarantees and Rational Use of Medicinal Products and Medical Devices of 2006. Although the Royal Decree has not yet entered into force, these new measures assure an effective vigilance in the provision of medicinal products to patients.

One of the measures adopted by the new Decree is an electronic notice in case of possible adverse effects which will enable the creation and maintenance of a European database managed by the European Medicines Agency (EMEA) and its access by Member States.

Another measure is a definition of risk management which is described as the "planning of the pharmacovigilance activities to enable the anticipation of security problems and the introduction of measures that may decrease the known risks of medicinal products and the effective communication of such activities".

The Decree also introduces a duty to be carried out by pharmaceutical companies so as to include a warning (in the shape of a yellow triangle) during the five year period of commercialisation of a new active substance in communications directed to health professionals. There are also improvements in the procedures to be taken in case of revocation of the authorisation of a medicinal product.

Germany: Health insurers' rebate contracts may breach European Competition Law

The European Commission initiated the first step of treaty violation proceedings against Germany through publication of a letter of intent on 17 October 2007. The allegation is that rebate contracts under Section 130a(8) of the Social Act V (Sozialgesetzbuch V – SGB V) concluded between the Statutory Health Insurance Funds and individual companies regarding the delivery of particular medications without a European-wide tender violates European public procurement law.

Since the right to negotiate discounts was granted to the Statutory Health Insurance Funds, the insurers have signed about 7,500 rebate contracts with sixty-two manufacturers covering 20,500 medicinal products. At the end of September 2007 the German General Local Health Insurance Fund (Allgemeine Ortskrankenkasse – AOK) started its second tendering procedure in which 40% of all prescription medicinal products purchased would be covered by rebate contracts. The German Cartel Office (Bundeskartellamt – FCO) became involved after Germany's four main industry associations lodged an official complaint about the AOK's operations and conducted a hearing with the AOK. It is argued that the Public Procurement Tribunal of the FCO should stop this second tendering procedure as it may violate the provisions of general German public

procurement law. However, the AOK denied the applicability of the German public procurement law, with the argument that Statutory Health Insurance Funds are not public contracting entities.

The discussion focuses on whether the Statutory Health Insurance Funds are public contracting entities under Section 98 No. 2 of the Act Against Restraints of Competition (Gesetz gegen Wettbewerbsbeschränkungen – GWB) and whether rebate contracts are considered as public contracts pursuant to Section 99(1) GWB. Separately, discussion is continuing as to whether rebate contracts are excluded from public tender requirements on the basis of social security legislation (Section 69 SGB V). If both these issues are answered in the affirmative and public procurement law is considered as superseding social law, discount agreements will have to be publicly tendered on a European basis.

The National Health Insurance Authority (Bundesversicherungsamt – BVA), the supervising authority for Statutory Health Insurance Funds, stated in August 2007 that Statutory Health Insurance Funds are to be considered public contracting entities under German public procurement law and rebate contracts are public contracts under Section 99(1) GWB. Therefore, in its view, rebate contracts pursuant to Section 130a(8) SGB V fall under the scope of the GWB and should be publicly tendered European-wide. In addition, the BVA clearly expresses that public procurement law is not ruled out by Section 69 SGB V.

As the legal jurisprudence regarding the use of public procurement law principles for rebate contracts is inconsistent, the situation is unclear. Against this background, the decision of the FCO and the course of the treaty violation proceedings of the European Commission against Germany is awaited.

Poland: Act on healthcare services financed from public funds

On 29 September 2007, the Act on Healthcare Services Financed from Public Funds (the 'Healthcare Law') entered into force, incorporating anti-corruption provisions (Art. 63a-c and Art. 192b-c) with penal sanctions. The Act is controversial, as its original aim was to remove reimbursable products from the market, but the final wording adopted by Parliament distinguishes between normal and 'unjustified' practices. Moreover, the new provisions under the Act overlap with existing anti-corruption provisions in the Pharmaceutical Law and Penal Code. Even though the rule is that provisions prohibiting certain activities as well as penal provisions should be interpreted narrowly, there are opinions supporting a wider, punitive interpretation.

Art 63c of the Act confirms the general rules of competition law. This provision prohibits unequal treatment of competitors at the wholesale level in the pharmaceutical market. This provision does not affect normal commercial activities as stated in article 94(4) of Directive 2001/83. The unclear wording of this provision has, however, caused problems in the market. It is interpreted by some commentators as a prohibition on all discounts, even though such an interpretation is contrary to Directive 2001/83 and the EU Constitution.

Article 63a of the Act supplements the prohibition on advertising already contained in pharmaceutical regulations. It prohibits the corruption of pharmacists, supervisors/managers of wholesale companies or other employees of pharmacists or wholesalers by offering them benefits in return for increased sales. This prohibition appears to apply only to private persons.

Breach of Articles 63a and 63c, or by employees of a company as described in Article 192b-c of the Healthcare Law, may result in criminal liability. The penalties for a company may include a ban on taking part in tenders or a fine of up to PLN twenty million. If the regulations are violated by an employee, it is possible to avoid punishment if the company proves that the violation was the result of unusual behaviour by the employee and that the company acts according to proper rules and exercises care in selecting and controlling its employees. It is now up to the new government to interpret these provisions.

Russia: 30,000 deaths in man-made and road traffic accidents in 2007

More than 3,500 people have been killed in about 2,000 man-made incidents in Russia since the beginning of 2007, the country's emergencies ministry said on 4 October. As reported by the Russian News and Information Agency – NOVOSTI, "during the first nine months, 1,933 emergency situations were registered in Russia with 3,535 people being killed," the ministry said in its statement. In September 2007 alone, Russia registered 174 man-made accidents, which left 283 dead and 511 injured, the ministry said. At the same time, all regions in Russia witnessed a decline in the number of man-made emergencies, the ministry said. "Compared with the same period last year, the number of man-made incidents declined by 14.9% while the number of people killed in emergencies fell 20%," the ministry said.

Meantime on November 12, NOVOSTI reported that more than 27,000 people had been killed in road accidents in Russia since January 2007. In a statement the Russian Traffic Police said that "from January–October 2007, a total of 27,289 people were killed and 247,770 injured in 194,000 road accidents." This is a 3.4% increase on the same period in 2006. The majority of accidents were caused by violations of road traffic rules. However, tougher punishments for driving under the influence of alcohol saw a 10% drop in drink-driving accidents. The drop in child road deaths saw a similar decrease.

Russia: Work on new strategy for health care development.

According to the Russian daily newspaper, Kommersant, Russia's Health and Social Development Ministry will focus in 2008 on developing a new Strategy for Health Care Development for the period 2009–2019. The document should detail growth in medical expenditure and put forward a programme of health system reforms to be carried out in 2009 through 2012.

Russia's newly appointed Minister of Health and Social Development, Tatiana Golikova, made the first public statement related to the mid-term strategy of the ministry. "The document shouldn't be a general slogan, but feature definite directions for the first three, and then for the following seven years," the minister pointed out. It appears the Finance Ministry, where Golikova worked prior to her current appointment, will now face a strong advocate for greater health system funding. According to Kommersant,

sources do however indicate that Golikova does not think that funding is the major concern; more important is the need to introduce quality control measures in the health system.

More information in Russian at http://www.kommersant.ru/doc.aspx?DocsID=822336

Bulgaria: UNICEF responds to intolerable situation in children's home

In Sofia on 19 November, the United Nations Children's Fund (UNICEF) renewed calls for accelerated efforts to improve the child welfare system in Bulgaria, particularly the reliance on institutionalising children without parental care.

The statement was made in response to a documentary '*Bulgaria's Abandoned Children*', first broadcast by the BBC in September. This documentary depicts the intolerable situation at one institution in Mogilino. It once again emphasised that additional and urgent efforts have to be channelled towards the prevention of institutionalisation and improving assistance to children without parental care.

A plan of action has now been developed by the Government of Bulgaria with the ultimate objective of closing the institution in Mogilino. It will be implemented in partnership with UNICEF and an alliance of non governmental organisations. As part of the plan, on 7 and 8 November, UNICEF conducted a joint assessment mission of the institution in Mogilino, with the Agency for Social Assistance and representative of the alliance of NGOs to identify the immediate needs.

The main finding of the team confirmed that the overall standard of care provided to all sixty-five children in that institution was bad and the staff were not adequately qualified. The situation of three children was critical and they were hospitalised, while another twenty children needed immediate additional care and feeding to alleviate deprivation caused by meagre nutrition and care.

Based on the assessment and the plan developed by the Government's Social Assistance Agency, a group of care providers and medical experts are being selected and will start working in the institution immediately. Meantime, individual assessments and plans for alternative care are being developed, while UNICEF has requested the Government to provide additional information on the conditions of care in other institutions for children with disabilities as part of the review of residential care system.

The statement indicates that key reforms are still needed to convert existing residential institutions into a system of community-based services, thus protecting the right of the child to live in a family environment. UNICEF is also committed to helping the government further expand family support services for the prevention of abandonment and help local municipalities in designing appropriate interventions and channelling adequate financial resources for deinstitutionalisation of children.

Information on the documentary 'Bulgaria's Abandoned Children' is available at http://www.bbc.co.uk/bbcfour/documentaries/features/bulgarias-children.shtml

UK: BBC report claims cancer studies 'wasted millions'

An investigation by the BBC has discovered that millions of pounds of charity donations and taxpayers' money have been wasted on worthless cancer studies. Gerry Northam, reporting for the BBC Radio Four programme '*File On 4*' discovered that the results of thousands of studies have been invalidated. His investigation found that some scientists have failed to carry out simple and inexpensive checks to ensure they are working with the right forms of human tumour cells.

These cancer cell-lines, grown in flasks kept at body temperature, form the basis of many experiments. To the naked eye cell-lines for different cancers all look fairly much the same – a cluster of tiny dots on the bottom of the flask. Using the right cells is vital for much research, but even under a powerful microscope, it can be hard to tell them apart.

In fact, human cancer cell-lines can be contaminated by rat or mouse cancer cell-lines as Professor Geoff Pilkington, who runs the biggest laboratory in the UK studying brain tumour research, can testify. He told the BBC that "whole programmes of research had to be redone using verified human brain tumour cells" because of this type of contamination. "It's hugely expensive and it's incredibly frustrating and it means that the laboratory is put into some degree of disrepute in a way, because you don't want your lab to be associated with something which is purporting to have cells which clearly they're not. And the only way you can deal with this is to be upfront and honest about it and get rid of those cells and then re-evaluate everything you're doing in the lab," Professor Pilkington added.

Northam claims that "such contamination of cell cultures is by no means unique. Many laboratories suffer similar catastrophes, even with well-established lines of cells, which are sold all over the world by specialist companies. There's also a lively informal system of exchange in which scientists send each other cell-lines, blissfully unaware that some have become contaminated and are not what they purport to be. These mistakes can go undetected for years – on occasions even for decades."

One of the latest examples of scientific research to be affected by this problem is a study of oesophageal cancer. Researcher Dr Chris Tselepis worked with an international team which has found that TE7, an experimental culture of cancer cells used in labs for the past twenty years, was the wrong cancer. "Fortunately, for us our research was based on a number of cell types, so the impact of a mistaken identity for this line has actually been fairly minimal to us," said Dr Tselepis who is studying the cancer at the Cancer Research UK laboratories in Birmingham University. "But I'm sure there's many other laboratories UK and worldwide-based that essentially base lots of their conclusions on one cell line and in that case, this mistaken identity has a massive impact on conclusions that people draw from such studies," he added.

Scientists at the German Government's collection of tumour cell cultures have also recently checked the identities of the samples they're sent by researchers all over the world. They found discrepancies in 17% of all tumour types, a finding which left them astonished.

This problem is compounded by the fact that studies based on erroneous research data will be printed in reputable scientific journals and become part of the accepted literature, thus misleading future researchers. Earlier this year nineteen eminent cancer specialists from the UK and USA wrote to the US Health Secretary urging tough action to

end this waste of time, effort and money. The US authorities replied that there appeared to be "abundant evidence" that many studies and publications had been compromised. The letter's originator, Professor Roland Nardone of the Catholic University of America, said the best way to get scientists to comply would be to withhold research grants and publication in scientific journals unless their research used authenticated cell-lines. This verification can be achieved using a technique of DNA profiling which compares the cell-line with a list of known contaminants and can cost as little as £180 per sample.

However the Medical Research Council, the major source of public funds for such research in the UK providing £70m of grants annually for cancer studies, told the BBC that there was no evidence that this problem is happening on a significant scale. Nonetheless, one of the UK's leading cancer medicine experts told the programme that it was time for the scientific community to put its house in order. "No grant or no publication," said Professor Karol Sikora, of Imperial College, London. "If one of the leading journals, which all of us want to publish in, said: 'You have used cell-line - just give us the certificate of authenticity'. Now we can tell all that and it doesn't necessarily cost a lot of money."

The transcript of the File on 4 programme 'Cancer Research' is available at http://news.bbc.co.uk/1/shared/bsp/hi/pdfs/20_11_07_fo4_research.pdf

Smokefree England: The first three months

The introduction of smokefree work-places and public places has run smoothly. People are particularly enjoying a healthier atmosphere in all workplaces including pubs and clubs, with the primary benefits of cleaner air and not smelling of smoke after a night out - according to a three-month report issued on 2 November by the Department of Health in England.

When surveyed, the top three benefits people had noticed since England became smokefree were that clothes and hair don't smell of smoke after visiting a pub or club; that there was a more pleasant or better atmosphere in pubs, clubs and/or restaurants; and the air was cleaner

Research found high levels of support for smokefree by both the general public and businesses. Three quarters of adults support the law and 79% believe it will have a positive effect on public health. A greater proportion of smokers (47%) support the new law than oppose it (37%).

Of over 275,000 businesses inspected between 1 July and the end of September, 98% were found to be compliant with the new law, with 84% displaying the correct signage. 86% of businesses said the implementation of the new law had gone well and 78% said it was "a good idea".

The number of calls to the smokefree compliance line has also tailed off considerably, falling from over 1,000 calls during the first week of operation down to an average of twenty a day in September. Also, there have only been seventy fixed penalty notices issued to individuals smoking in smokefree places since 1 July, both of which suggest that, as in Scotland and Ireland, the ban has been largely self-enforced.

Minister of State for Public Health, Dawn Primarolo, said that the report "confirms that smokefree law is not only popular, but that the vast majority of the general public believe it is good for public health. People of all ages are reaping the benefits of healthier, less smoky work and social environments, which in turn are seen as an incentive for many to get out and socialise more." She added that she was "especially proud to hear that nine out of ten businesses say that implementation went well and that the majority of people, smokers included, are supportive of the new legislation. The evidence is clear, secondhand smoke is a killer and removing it from enclosed public and work environments marks the single biggest improvement in public health for a generation."

In the run-up to 1 July, Smokefree England provided detailed information and support to businesses, as well as running a high profile campaign to ensure the general public were aware of and ready for the law. The figures appear to speak for themselves: general awareness of smokefree law reached 98% in mid-July. 85% of adults said they had seen publicity about the intro-duction of smokefree law, with 75% citing TV ads; 41% TV programmes; 30% press ads and 21% per cent had seen Smokefree England advertisements on billboards. 49 % said the ads "stuck in their mind" and 91% understood the message of the advertising.

October 2007 also saw the age of sale for tobacco products increased from 16 to 18 years, while in 2008, hard hitting picture warnings will be required on all tobacco products produced for the UK market from 1 October.

The Smokefree England three month report and further information about the legislation can be found at http://www.smokefreeengland.co.uk.

Public health in England: improvements and challenges

Life expectancy is at the highest level ever, deaths from cancer, heart disease and stroke are falling, and infant mortality is at its lowest level ever according to the Health Profile of England 2007, published on 22 October by the Department of Health in England.

The Profile contains international comparisons and compares the health of England to that of the European Union. It reports that early death from the two biggest killers, circulatory disease and cancer are reducing faster in England than the average for the EU, while deaths from motor vehicle traffic accidents in the UK are amongst the lowest in the EU.

Whilst the statistics show that there has been ongoing improvement in many aspects of the nation's health, the Health Profile also shows that there are some issues where progress is slow. Regional health inequalities still exist, and rates of obesity, diabetes and alcohol related hospital admissions are rising.

In comparison to the EU-15, the prevalence of obesity in England is the highest. Deaths from chronic liver disease and cirrhosis have risen markedly, and England has risen above the EU-15 average. Despite declining teenage pregnancy rates, the UK also has the highest proportion of births to under 20s compared to other Western European countries.

Public Health Minister, Dawn Primarolo, acknowledged that "there is still a lot to do in tackling health inequalities." She said that to address this there would be major improvements

to GP services across the country, including greater flexibility in opening times, and over 100 new GP practices in the 25% of Primary Care Trusts with the poorest provision."

She went on to add that "whilst we have made good progress in stopping people smoking, I am determined to move further and faster to respond to all these challenges – with a cross government drive to tackle obesity, improve diet and activity levels and promote safe and sensible drinking … our ambition is to reverse the rising tide of obesity and overweight in the population, by enabling everyone to achieve and maintain a healthy weight. Our initial focus will be on children: by 2020, we aim to reduce the proportion of overweight and obese children to 2000 levels."

The health profile of England 2007 can be accessed at http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_079716

Sweden: Report on the consequences of privatising retail alcohol sales

As a member of the European Union, Sweden since its entry has been questioned about its alcohol retail monopoly and there exist rather constant pressures from the EU to eliminate aspects of national alcohol policy which have historically been established for Sweden in the interest of protecting public health and safety. While the EU Court has upheld the legality of an alcohol retail system in Sweden, there are other pressures to reduce or eliminate the provisions of the retail monopoly. The recent European Court decision to overturn the Swedish law which bans internet sales of alcohol is just such an example.

What potential consequences would a privatisation of the *Systembolaget* alcohol monopoly have on Sweden's public health? This question is the focus of a new publication from the Swedish National Institute of Public Health. The report, written by an international team of experts, presents the potential effects of a privatisation of the current system of selling alcohol. According to the conservative estimates presented in the report, an elimination of the alcohol monopoly in Sweden would lead to a 14% increase in alcohol consumption (1.4 litres per capita) if sales were restricted to licensed speciality stores. The increase in alcohol consumption would be 29% (2.8 litres per capita) if the sale of alcohol was allowed in, for example, supermarkets. Taking into account the increase in negative externalities associated with alcohol, the risk of increased sales and consumption of alcohol and conservative estimates of increased per capita consumption of alcohol associated with a private licensing system, the authors conclude that the consequences of establishing a private licensing system would be detrimental to Swedish public health and safety.

This report is available at http://www.fhi.se/upload/ar2007/Rapporter%202007/Monopolstudie_eng_ver19_0711.pdf

Ireland: Largest ever health research study finds strong satisfaction with health services

On 28 September 2007 the Health Service Executive (HSE) published consumer research results which show that there is strong satisfaction with health services and a high degree of confidence and trust in health professionals. Commissioned by the HSE in 2006, the study was carried out by the School of Public Health and Population Science in University College Dublin (UCD) in partnership with Lansdowne Market Research.

Insight 07 is the first independent large scale study undertaken among people who have used hospitals and community based health services. The study identified for the first time what proportion of the population is using which service. The General Practitioner (GP) is confirmed as the most frequently consulted point of the health service and is the best rated service. One third of the population had some contact with the hospital system in the past 12 months; almost two thirds had been in contact with their GP; and one fifth reported contact with community services other than their GP.

Professor Cecily Kelleher of UCD commented that "this pattern of service use, which shows high utilisation of GP services, coupled with the fact that the vast majority of respondents stated that they got their health information from the GP, reinforces the central part primary care plays in the promotion, provision and maintenance of health."

For the health service in general, the results show a number of positive results, including the level of confidence and trust in the care received in hospital and community settings being rated highly (67–86%), while a majority of respondents were admitted to hospital in a timely manner (76% immediately).

While General Medical Service (GMS) cardholders (individuals entitled to most services free of charge) were more likely to use health services and have poorer health, there was no notable difference in service satisfaction between cardholders and non cardholders. The results also confirm the paradox that people want access to both local and specialist services. While a large majority of respondents stated that they believe that acute hospital services should be provided in every county, seven out of ten respondents also indicated a preference to be treated at a specialist or concentrated acute centre where there is evidence that this will provide the best outcome for them. Nonetheless, ease of access remains very important to most respondents.

Professor Brendan Drumm, Chief Executive Office of the HSE, said that the results are "a true reflection of how the majority, rather than the vocal minority, view the health service" and that "it is time that staff got the credit for what is very positive feedback from people who are using our services."

Professor Drumm also pointed out that the role of patients or healthcare consumers is central to the success of the Health Transformation Programme and influencing change. He stated that "it is increasingly acknowledged that the most successful approach to building a safer and quality health care system is when the health service works together with patients and communities" he said at today's launch "and the information from this study will help us achieve this."

The study involved detailed face-to-face interviews with 3,517 people across the country. Respondents were asked about their experience of the public health and social care services during 2006 and 2007.

The full results of the survey can be accessed at http://www.hse.ie/en/Publications/HSEPublicationsNew/INSIGHTCustomerSatisfactionSurvey

News in Brief

EC health services impact assessment tool launched

This web-based tool launched by DG Health and Consumer Protection is designed to help produce a Health Systems Impact Assessment (HSIA) as part of the European Commission's impact assessment procedures.

Member States are fully responsible for health policy and the organisation of health systems, but nevertheless EU policies often have an impact on health and, in particular, many policies have unintended positive or negative consequences for Health Systems, due to their large and complex structures in every Member State.

The tool provides information on the objectives and health system functions that a proposal may impact on, either in a positive or negative way. It will also direct users to information and evidence from past initiatives to help determine whether a proposal will have an impact, and if so, what that impact might entail.

More information at http://ec.europa.eu/health/ph_overview/co_operation/high_level/index_en.htm

Alcohol Forum underway

The summary of the first meeting of the European Commission Alcohol and Health Forum is now available online. Commitments for action by participating umbrella organisations are scheduled to start in January 2008, with the next plenary session set for April.

More information at http://ec.europa.eu/health/ph_determinants/life_style/alcohol/Forum/alcohol_forum_en.htm

Europe-wide day promotes healthier eating for children

Over four thousand European chefs helped children to take part in the first European healthy eating day in November. The day saw chefs giving demonstrations in schools and fun events in restaurants as the EU teamed up with the European Association of Chefs to champion the cause. Lessons were organised on how to prepare simple, balanced meals that taste good. The idea of eating together with friends or family was also a key ingredient. For example, in Sofia, the city council and the European Commission put on an event in a city centre cinema where forty chefs and four hundred children explored healthy eating issues and watched a special screening of the film 'Ratatouille'. Obesity is on the rise across the EU, with twenty-two million children categorised as obese or overweight, while twenty thousand obese children are diabetic and millions more are heading towards heart disease. More than 1.4 million are estimated to have liver disorders.

More information at http://ec.europa.eu/dgs/health_consumer/events/minichefs_en.htm

Mixed messages in latest EU drugs report

After over a decade of rising drug use, Europe may now be entering a more stable phase, says the Lisbon-based European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). Not only are there signs that heroin use and drug injecting have become generally less common, but new data suggest that levels of cannabis use may now be stabilising after a sustained period of growth.

Nevertheless, positive messages are marred by high levels of drug-related deaths and rising cocaine use. Moreover the EU risks failing to meet targets to reduce drug-related deaths: there are between seven and eight thousand overdose deaths per year, with no downward trend detectable in the most recent data. These are among the findings of the EMCDDA's annual report on the *State of the Drugs Problem in Europe* published on 22 November.

The report is available at http://www.emcdda.europa.eu/events/2007/annualreport.cfm

Report links body fat to increased cancer risk

The World Cancer Research Fund together with the American Institute for Cancer Research launched its second expert report entitled 'Food, Nutrition, Physical Activity and the Prevention of Cancer: a Global Perspective.' Taking five years to complete, and involving nine teams from around the world, data from seven thousand published studies were analysed. Convincing evidence directly linking body fat to six cancers including colorectal and post-menopausal breast cancer was identified.

The report is available at http://www.dietandcancerreport.org/

Ukraine: prisoners unaware that TB can be cured

A new WHO study conducted in Ukrainian prisons shows that most prisoners do not know that they can protect themselves from tuberculosis (TB), or that it is curable. Individuals in prison are up to one hundred times more likely to get TB than the general population.

The study calls for better efforts in working with inmates. It offers recommendations on how to provide them with knowledge about TB and how to avoid infection or cope with treatment. The study stresses that doctors and nurses should be offered more tools to bridge the knowledge gap. They should also be given special training to equip them with skills not only to inform but also to motivate the inmates.

Research results will become a basis for the WHO Office in Ukraine to draw up detailed proposals on how to improve the situation concerning TB awareness and hence TB control in the prison system. They will be discussed with the State Department of Ukraine for Execution of Punishment to explore possibilities for further cooperation.

More information at http://www.euro.who.int/PressRoom/pressnotes/20071109_1

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