

Fat is an economic issue!

Combating chronic diseases in Europe



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Europeans are getting fatter, we are eating the wrong mix of foods and we are becoming less physically active. These observed trends have been linked to the rise in chronic diseases, with potentially severe consequences. While the indications are strong, more research is needed to guide politicians and policy makers, not only to spell out the health and economic costs but also to define effective intervention strategies and promote investment in health promotion. We have to act now.

Economic change can have a powerful impact on health, not always for the better; witness the dramatic impact of the economic collapse of the former Soviet Union. Equally, the burden of disease has important implications for economic performance and inequality: HIV/AIDS in Africa, has reduced regional GDP by as much as 30%, while the costs of new variant Cruetzveld Jakobs Disease (BSE or mad cow disease) in Europe, are approaching €40 billion. Sudden Acute Respiratory Syndrome (SARS), though still limited in its significance compared to the big killers, has greatly damaged trade, investment, and tourism in south east Asia and Canada.

The Burden of NCDs

With over 30 new infectious diseases emerging over the past 30 years, the case for better surveillance and investment in health protection has been powerfully made.¹ What though of the burden of less pin-pointable, less headline-grabbing 'non-communicable diseases' (NCDs), often termed 'lifestyle diseases' or, inaccurately, 'diseases of affluence'? In terms of morbidity rather than mortality these chronic diseases occupy a growing burden of disease worldwide. In 2001, they accounted for

approximately 60% of the 56.5 million total deaths and 46% of the global burden of disease, increasing to 57% by 2020.² Chronic diseases are usually associated with older age groups, but with almost half of total chronic disease deaths due to cardiovascular disease (CVD), and the incidence of diabetes increasing dramatically in some countries, these problems are also starting to appear in the young.³ Worldwide, attention is focusing on the most visible sign of this problem, obesity, though the related health problems go far beyond this. What is clear is the perception of obesity and excessive weight as problems of appearance impedes their far more important health consequences.

Many in public health are beginning to ponder these big questions. How might these disease trends affect Europe and what are their economic costs, either to the health care system or to the broader economy? What is the impact of these diseases on household incomes or on health inequalities? Perhaps the most important question of all is what can be done to stem the mounting tide of NCDs? To answer these questions, research is required across academic disciplines. The traditional approach adopted in health economics, focussing narrowly on medical care, has failed to address these public health concerns sufficiently. Such research can have an important role in guiding politicians and policy makers, but the evidence should also help to direct the media away from its preoccupation with 'medical breakthroughs' or personal manifestations of disease and treatment, storylines which invariably direct public attention away from a population perspective and analysis of upstream causation.

Obesity in the US

If the significance of obesity and being overweight has not dawned upon many European leaders, it has done so in the US. In June 2002, President Bush, announced the revival of the President's Council on Physical Fitness, and emphasised the importance of 30 minutes of daily physical activity for adults (60 minutes for children),

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1 *eurohealth Vol 9 No 1 Spring 2003*

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and the value of 'five a day' consumption of fruit and vegetables. Certainly, evidence from the US provides a warning to Europe, not just because of the implications for health and financial costs, but also because of the clear identification of causes. As one WHO expert group has noted: "In many countries, perhaps most typified by the US, changes in family eating patterns and the consumption of fast foods, pre-prepared meals and carbonated drinks, have taken place over the past 30 years. Likewise, the amount of physical activity has been greatly reduced, both at home and in school, as well as by increasing use of mechanised transport."⁴

Such changes have been immense in the US. Food companies seemingly defined a new food culture as early as the 1950s. Per annum it is estimated that \$4.5 billion is spent by the food industry on advertising and \$50 million on lobbying in Washington.⁵ Around 90 % of US children between 3 and 9 visit a hamburger restaurant monthly. Average portions in hamburger chains have doubled in 30 years, with a similar trend in the consumption of sweetened carbonated drinks. Schools appear to have a particular problem, as children have been 'trained' to consume fast food and reject vegetables. The US Surgeon General reports that that school foods have the highest saturated fat density of all food outlets.⁶

Catastrophic consequences

If the health consequences are already serious, they are set to become catastrophic. Current estimates are that more than 60 million Americans have one or more types of CVD. According to the US Surgeon General, approximately 300,000 deaths a year are associated with obesity and being overweight (compared with more than 400,000 deaths a year associated with cigarette smoking). Furthermore recent government projections estimate that health care spending in the United States will reach \$2.8 trillion in 2011, up from \$1.3 trillion in 2000, and health care spending is expected to reach 17 % of GDP by 2011, up from 13.2 % in 2000.⁷ (Bear in mind that approximately 41 million Americans in 2001, 14.6% of the population, were without health insurance for some of this year.) Expenditure on prevention in the US is a tiny fraction of the amount spent on medical care. According to official assessments, CVD accounts for approximately 61 % of all health care spending. The total direct and indirect costs attributed to being over-

weight and obesity are smaller, amounting to around \$117 billion in 2000, or 10 % of total health care costs.⁶

We believe the last assessment may be an underestimate. One recent study comparing the treatment costs of obesity with those for smoking and alcohol has suggested that obesity is associated with a 36 % increase in inpatient and outpatient spending and a 77 % increase in the use of medications, compared with 21 and 28 % increases respectively for current smokers, and smaller increases related to alcohol.⁸ Demand for medical treatment for obesity is rising. In 1998, there were some 400,000 liposuction procedures in the US. Over 100,000 Americans per year, and the numbers are rising rapidly, now receive gastric bypass surgery, the 'last ditch' technique for saving lives and tackling the symptoms of morbid obesity, such as diabetes.⁹ Needless to say, the total costs of surgery, ranging from \$17,000 to \$45,000 per operation, are considerable.

The situation in Europe

How do these trends correspond with the situation in Europe? From data collected for the recent World Health Report, we estimate that around 8% of deaths and disability are attributable to being overweight or obese, only slightly less than the 12% attributed to smoking. How much does this cost and, more importantly, could it be avoided? Cost of illness studies are generally done by those with a vested interest in a particular disease, such as pharmaceutical companies and health charities, and there are no standardised ways of carrying out such analyses. So the short answer is that we have very little information to go on. We urgently need the European Commission, or another international body, to commission a study looking at all diseases and all the main causes of ill health in a comparable way. At the moment it is only possible to make provisional estimates of attributable costs.

What is known, however insufficient, is worrying. It has been estimated that each year approximately €74 billion is spent on treating CVD in the EU and about another €106 billion a year are incurred in indirect costs due to the lost production of goods and services.¹⁰ WHO estimates that between one quarter and one half of CVD is attributable to being overweight or obese, and as about two thirds of death and disability from being overweight or obese are related to CVD this suggests total costs to European society of between €70 and

"Better information based on solid collaboration focusing on macro economic issues is needed"

€135 billion a year. In comparison the total budget for the Common Agriculture Policy (CAP) is approximately €40 billion a year.

Working out how much things cost is, of course, only half the battle. The next stage is to work out how much cost could be avoided, and indeed who would save the money. Here the ground is even shakier. What seems clear is that we need society-wide changes to deal with the problems of obesity. Dietary survey data show that adult intake of fruit and vegetables is less than 400g per day in 20 of the 25 countries for which data are available. WHO recommends that fat intake should be less than 30% of total energy, but survey data show that 21 out of 26 countries fail to meet this goal. There are paradoxes too that confuse the picture. For example, in Spain the proportion of children aged 6-7 who are overweight is higher than the US, while adolescent excessive weight levels are among the highest in the world. Nevertheless, CVD related mortality is lower, similar to that in Italy and France, while the cancer mortality rate is even lower.

The UK has the unenviable position of setting the trend for population weight increase in Europe. (See Table) The National Audit Office estimated that obesity accounted for 18 million days of sickness absence and 30,000 premature deaths in 1998. Treating obesity costs the NHS at least £500 million a year. The wider costs to the economy in lower productivity and lost output could be a further £2 billion each year. On average, it noted, each person

whose death could be attributed to obesity lost nine years of life.¹¹ These figures were picked up in the UK Treasury's assessment of health spending, which prompted its author, Derek Wanless, to call for a 'fully engaged' health strategy,¹²

Tackling obesity

So much for the worries, what can be done about them? In the UK a variety of actions are being pursued including support of 'five a day' type schemes promoting fruit and vegetables, as well as putting fruit directly into the hands of school children. Local action plans are recommended and a physical activity strategy is promised. Industry is also concerned, for instance, one of the world's largest chocolate confectioners, is sponsoring a scheme in which purchasers can trade in vouchers for sports equipment. Although sports bodies have been enthusiastic, the Department of Health and the Food Standards Agency have been noticeably cool. Others have suggested that different factors are influencing industry participation in health promotion initiatives, such as a growing awareness of the threat posed by the tide of anti-obesity litigation in the US.¹³

It is the growing size of the problem, and the growing tensions over the role of the food sector, which have prompted the UK Parliament's Health Select Committee to look at the issue from May 2003. The UK Public Health Association and the Faculty of Public Health Medicine have argued that the problems of being overweight or obese are world-wide, and require a pan-European approach, ranging from reform of the CAP to promoting new approaches to health protection (see ukpha.org.uk). Consideration should be given to the taxation of processed foods and drinks with high fat, high salt and high sugar content, and a hypothecated tax could contribute towards the costs of 'National Fruit in Schools' schemes and support further initiatives, particularly focussed on poorer communities.

They recommend a review of restrictions on food advertisements, proposing a ban on all that are targeted at programmes watched by children under ten. All school-based commercial promotion of foods should be ended and schools encouraged to adopt food policies, which for, example, end the link between income generation and the operation of school snack shops. Price differentiation they suggest should be introduced in schools to encourage the consumption of a healthier range of foods.

Table
PREVALENCE OF OBESITY (BODY MASS INDEX ≥ 30) IN A SELECTION OF EUROPEAN COUNTRIES

	% Men with BMI ≥30	% Women with BMI ≥30
England	17.0	20.0
France	9.6	10.5
Scotland	15.9	17.3
Germany	17.2	19.3
Italy	6.5	6.3
Finland	19.0	19.0
Sweden	10.0	11.9
Belgium	12.1	18.4
Netherlands	8.4	9.3
Denmark	10.0	9.0
Spain	11.5	15.2
Czech Republic	16.3	20.2
Russia	10.8	27.9

Table compiled by the International Obesity Task Force 1999.

"Children have been 'trained' to consume fast food and reject vegetables"

They also recommend a society-wide approach, promoting urban planning, transportation and building design to give priority to the safety and transit of pedestrians and safe bicycle use, with policy innovations ranging from congestion charging to reduced speed limits in urban areas.

However much stands in the way of such proposals being implemented, ranging from industry pressure to organisational and political inertia. What is now needed, urgently, is better information for the public, based on solid collaborative research focusing on macro-economic issues. Several organisations in the UK have called for collaboration along the lines of the Cochrane Collaboration in evidence-based medicine [see www.cochrane.org] to secure a set of principles for researchers to work together. While the case for undertaking the work on a UK basis is a strong, the case for doing it on a Europe-wide basis, involving the European Commission, is compelling.

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