**Health Policy Futures: Pathfinder Paper**

**What will health cost?**

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**Introduction**

The production of health is the primary objective of all health care systems. These systems are not, however, the only (or arguably, the most important) determinants of health, bearing in mind the WHO definition *“Health is a complete state of physical, mental and social well being and not merely the absence of disease or infirmity”* (WHO 1946). This definition highlights the fact that health (as an output) is determined by a range of inputs including environmental factors, employment, public health legislation, social care, action to support self care, wellness and lifestyle choices and investment in global health. In this paper, a production function view of health is taken and broad indicative cost estimates are provided for the main inputs to health.

The paper considers how these costs are likely to change and how they can be met in 2020 (i.e. how and by whom they are to be paid) and the balance between them in terms of, *inter alia*, programme expenditures and the combination of public/ private spending. It is concluded that the costs of poor health, which fall on individuals, carers, local and central government and employers are of a similar magnitude to healthcare costs and are likely to increase significantly over the next 15 years. The ‘fully engaged’ scenario as called for in the Wanless’ report will require an extension of the sources of funding for health and care and actions to promote informed engagement with health by all sectors of society (Wanless 2004).

This perspective provides a wider context to the question of whether tax funding for the NHS will be sustainable over the next 15 years. We conclude that central taxation is likely to remain the primary source of funding for the NHS but that it will be necessary to control health care costs by better commissioning and a clearer definition of patient rights. Other forms of funding will be of increasing importance, to self-care and long term care for people with complex physical, mental and social care needs. These conditions will be the defining challenges for future health and care funding.

The role of the Department of Health in England is expected to change from targeting and direction of healthcare provision to the stewardship of health commissioning, provision and regulation. The NHS could in future be characterised as a tax funded system guaranteeing access to cost effective treatment choices, commissioned by local health organisations from a network of community, voluntary and privately owned health and social care organisations competing to attract patients on the basis of service and quality at standard prices. More private providers will be encouraged to participate in the NHS funded marketplace. The NHS in other home countries is not following this path, whether they remain as vertically managed public sector systems will depend upon the success or failure of the NHS in England, particularly when the rate of increase in health funding slows. An equally important task for home country departments of health will be to provide leadership for health nationally and to support local leadership and action for health by all sectors of society. A new Health of the People Act and a range of measures to support wider engagement with health are proposed.

**Healthcare**

The most authoritative forecast of the future need for healthcare funding is provided by the Wanless Review. This was based upon a calculation of the increases required to improve quality standards to meet the National Service Frameworks, adjusted for changes in demographic factors and the impact of a range of other trends under three different scenarios for the future of health (Wanless 2002).

The review was accepted by Government as the basis for NHS funding increases for the next 4 years. Between 2002/3 and 2007/8 NHS funding is set to increase by an average of 7.4 % per annum in real terms. After 2008 the rate of increase in NHS expenditure required was assumed to reduce significantly to between 4.3% and 3.2% per annum in real terms, about the rate of increase from 1954 -2000. NHS expenditure is projected to rise from £68 billion in 2002/3 to between £154 and £184 billion in 2022/3 in real terms (that is after consumer price inflation).

The Wanless review suggested that the low scenario for NHS costs could be achieved by the full engagement of society in responsible health choices. This “fully engaged” scenario represents the ideal of a transformative change in attitudes to health, which was assumed to lead to greater savings than the marginal benefits of individual public health measures as measured by Ableson (2003). It is also possible that attitudes to health will not change and a higher cost scenario will apply.

The review stated that taxation is the most efficient and equitable basis for funding the NHS and proposed no changes (see later discussion, which also considers social insurance funding for health as adopted by some other European countries). The fully engaged scenario was said to be affordable to the state and likely to be comparable to or lower than spending in competitor countries (Lister Forthcoming). Derek Wanless has stated on a number of occasions that he doubts the feasibility of funding the higher range scenarios for health costs.

Underlying cost drivers identified from the 2000 Health Policy Futures report (Dargie 2000) include: rising expectations of quality and choice as standards of living increase, the need to improve services to ethnic minority communities and technological developments, particularly genetics and stem cell research. These trends, which were not fully considered by Wanless, are likely to lead to pressure to increase NHS spending at 4-5% per annum for the following ten years (Lister Forthcoming). It is therefore important to ask if the funding and spending regime for the NHS will be robust enough to control costs and achieve efficiency savings once the period of rapid increases in funding ends.

The mechanisms for directing healthcare spending within the NHS in England are currently in transition. Primary Care Trusts (PCTs) are allocated and control 81% of NHS expenditure as commissioners through contracts defined by the PCTs or GP practices with NHS Trusts and other healthcare providers. The 302 PCTs managed average commissioning budgets of £150 million in 2002/3. The remaining 19% is allocated directly by the Department of Health through central purchasing and commissioning arrangements. The performance of all Trusts is monitored by 28 Strategic Health Authorities on the basis of agreements and targets, which reflect government commitments set out in the NHS Plan and guidance from NICE and other bodies. This centrally driven performance management system based on targets and sanctions has been the subject of much criticism but has driven a remarkable improvement in health service delivery (DH 2004).

Foundation Trusts achieve independence by performing well under the targeting regime and gaining high ratings from the Healthcare Commission. They must also demonstrate sound management and governance, which includes the engagement of patients and staff as members and owners of the Trust. They are then able to raise funds and negotiate agreements with PCTs and others for the provision of health services, free of the performance management regime operated by Strategic Health Authorities. In February 2005 there were 20 authorised Foundation Trusts and a further 20 applicants. It is envisaged that in 15 years time virtually all NHS services in England will be provided by a combination of such community enterprises and privately owned healthcare providers operating treatment and care services.

At the same time a standard system of tariffs is being introduced for Health Resource Groups (HRGs). Eventually it will establish case mix adjusted cost and volume contracts with the aim of covering virtually all HRGs by 2006 (DH 2003). This will mean that providers will compete at the same price level to attract patients, advised by GPs, on the grounds of patient service and quality. The regulation regime for Foundation Trusts, undertaken by a new agency called Monitor, is designed to ensure that they comply with their Terms of Authorisation and avoid undue risks. This should prevent them from “cherry picking” only the most profitable services or offering unproven services. However, Foundation Trusts will be able to raise private finance, diversify and grow by taking on new health services and run the risk of insolvency, if politicians are prepared to let this happen. They will have an incentive to increase the services they offer, while PCTs will need to control costs by commissioning a defined package of cost effective services reflecting health needs.

Thus in the critical period when public investment in health slows down, NHS performance in England will be determined by regulated market competition, with PCTs commissioning services from a network of community and privately owned providers. This strategy is crucially dependent upon the quality of the commissioning function undertaken by PCTs, we suggest that there is a need to provide greater support for this function and to clarify patient entitlement (rights) under the NHS.

The other home countries have not adopted this reform path. Their NHS services are directed by home country departments of health, with performance and commissioning managed by Health Boards, - 4 in Northern Ireland, 15 in Scotland and 22 in Wales, contracting with publicly owned NHS Trusts providing services. These can be described as vertical public sector structures.

Private sector spend on healthcare (excluding long term residential care) in 2002 was £14 billion, it has risen continuously since 1987 and seems likely to continue to increase, in total private payments account for 17% of total health funding compared with an average of 25 percent across the EU (The Social Market Foundation 2003). Forms of private spending include: health insurance, cash plans, dental plans, critical illness insurance, income protection, co-payment and direct payment. Private spending on health care is, however, likely to remain a supplement rather than a substitute for public spending (Mossialos and Thomson 2004).

**Personal Care**

In 2000 2/3rds of NHS hospital beds were used by people over 65 many of whom suffer chronic diseases or long term conditions, requiring a combination of health and personal care. While the onset of infirmity is being delayed in many countries years of poor health are not decreasing (Wiener 1994). Men in the UK have an average life expectancy of 76 years with 9 years of poor health, while women have an average life expectancy of 80 years and 12 years of poor health (ONS 2004).

Older people make up half those with impairments and disabilities and often require long-term care, the total cost of which was £10.5 billion in 1999/2000 (DH 2000). The boundary between health and personal care is increasingly blurred. Many initiatives are underway aimed at better management of long term chronic conditions. For example, the “Evercare” model brought to England from the USA combines a more active primary care “Community Matron” nursing role with coordinated care and intervention to reduce the need for hospital admission (DH 2004).

In 1999 the Sutherland Commission called for long-term care costs to be split between personal care, living and housing costs (Sutherland 1999). They called for personal care costs to be assessed on the basis of need and paid for from general taxation, while living and housing costs were to be subject to co-payment according to means. The government responded that steps would be taken to provide free NHS nursing care but free personal care would be too expensive in England.

In Scotland, free home personal care was introduced in 2002, together with an allowance to pay for personal and nursing care for those people in long-term care homes. It was estimated that this provision would cost £1.5 billion (Machin and McShane 2001) but demand increased and it is now estimated that costs will rise by a further £1 billion over the next 15 years (BBC 2004). The Welsh Assembly, like Northern Ireland, followed the English model (Woodhouse 2000).

Personal and nursing care provided by the NHS and local authorities is a small percentage of total care, informal care provided by spouses or others is between eight and ten times greater for those under 75, for those over 75 this ratio drops to 3.7 because relatives are often no longer able to assist (Machin and McShane 2001). By 2020, the number of UK residents dependent upon informal care could increase from 2.5 million to 4 million and the number of people over 75 will increase by more than 20%. Currently there are 16 million carers, the value of whose work has been estimated at £57.4 billion per year (Carers UK 2002).

Projections of the cost of long-term care for the elderly by Wittenberg et al suggest that expenditure could rise from 1.37 percent to between 1.5 and 1.8 percent of GDP by 2020, (Wittenberg et al. 2002). Currently, 66 percent of long-term care is publicly funded, but with free personal care this could increase to 79 percent.

The funding of long term care is a major challenge not just for the next 15 years but for the next 50 years, as by 2051 it is estimated that care spending will need to triple in real terms (Wittenberg et al. 2002). While it can be argued that the current balance of tax and insurance funding could cope with this level of increase there is a need for a serious debate about dedicated forms of social insurance or private insurance to establish a stable and equitable basis for long term care funding. This raises issues of cross generational equity as it may require those in work to fund the increasing burden of care for those beyond working age and/or to increase their pension or insurance provision to provide for their own long term care needs, while inheritance may be affected by the use of housing equity to fund care. It has been suggested that pension funds could be linked to long term health and care investment as one response to this problem. It is also important to note that in the next fifteen years the dependency ratio (those outside working age as a ratio of those of working age) will be relatively stable as the age of retirement for women is extended, but beyond 2020 there will be a sharp increase in this ratio.

**Public Health**

Resources devoted to public health include 1,331 consultants and specialists in Public Health in the UK, just over half of whom are employed in the NHS, a quarter in Universities, a sixth in Communicable Disease Control, with others employed by government including Regional Administrative Offices and the private sector (Perlman and Gray 2004). The front line for Public Health information, advice and monitoring is provided by multi professional primary care teams including GPs and Practice Nurses and 6,500 Health Visitors, who are public health nurses, it has been estimated that in one practice each patient had received an average of 7.25 personal preventive interventions from their GP (Pereira Gray 1995 and 1997).

The Department of Health also funds public health observatories at Regional Administrative office levels in England and advertising campaigns contracted to NGOs. The most recent Government health White Paper “Choosing Health: Making healthy choices easier” (DH 2004) proposes a new task force with responsibility for public health information, intelligence and social marketing for health. A broad estimate based on discussion with Professor Hunter, President of the UK Public Health Association is that the NHS and Department of Health spends about £600 million on public health functions.

Local Authorities Environmental Health Departments, whose role is to minimise risks to public health arising from air and water pollution, poor hygiene in restaurants and shops and pests, play an important role in the protection of health and addressing the broader determinants of health as noted by Burke et al (Burke, Gray et al. 2002). There are also Building Control Officers concerned with the safety of buildings and construction, Trading Standards Officers who as Butterworth notes

are also important resources for public health (Butterworth 2003) and 74 local authorities operate Port Health Services. A broad estimate by the authors is that local government spends £500 million on public health functions.

National agencies engaged in public health include the Health Protection Agency, which monitors and coordinates response to risks arising from infectious diseases, radiation, chemical and biochemical hazards and poisons, the Food Standards Agency, the Health and Safety Executive, and the Environment Agency. The total budget of these agencies in 2003/4 was £1.5 billion.

Responsibility for and expenditure on public health functions is split between the NHS, Local Authorities and national agencies. Total expenditure is in the region of £2.5 billion. Choosing Health suggests that total expenditure on Public health and self care will be increased by £1billion over the next five years.

**Self-care and wellness**

Self-care is the predominant mode of treatment for minor illnesses. Coulter and Magee report that in the UK 55 percent of survey respondents reported that in case of minor illness they would self-care (26 percent said they would visit the doctor, 17 percent said they would take no action) (Coulter and Magee 2003). The Proprietary Association of Great Britain report a survey showing that in cases of minor illness, 46 percent were untreated, 9 percent used home remedies, 26 percent used over the counter medicines bought for the purpose, 14 percent used medicines found

in the home, and only 10 percent said they visited the doctor (Bell 2003). The market for self medication and food supplements was valued at £1.97 billion in 2002 (Proprietary Association of Great Britain 2003).

The decision to allow the sale of Simvastatin without prescription is notable because it recognises the role of pharmacists as partners with the NHS in delivering preventive healthcare (DH 2003). Simvastatin prescription by pharmacists involves continuing monitoring of cholesterol levels and advice on diet and lifestyle, a role which in the past has been the prerogative of GPs and Practice Nurses. Many GPs find this anomalous arguing that such treatment requires a wider range of tests and can lead to complications, that pharmacist have a commercial interest in sales and that it is wrong to provide treatment on the basis of ability to pay. This may be seen as a radical new model for self-care, promoted by advertising, chosen and paid for by the customer and favouring those who are well informed and can afford to pay.

Self-care is recognised as central to chronic physical and mental illness. The Expert Patient Programme has proved to be remarkably successful in empowering patients to develop coping strategies to address chronic health, social and personal needs. It also demonstrates the need to support self-care and the important role that voluntary sector organisations such as patient groups can play in articulating and meeting this need (Johnson 2004). This is an example of health and care as co-created goods produced by patients, community and health services (Cottam 2004).

The willingness of the public to engage with their health and wellness is shown by the consumption of health products and services. The UK market for gyms and health clubs reached £1.6 billion in 2001 with 18 percent of adults claiming to attend, 37 percent of this market is provided by local authorities. The market is focussed on adults under the age of 45 with higher levels of income (Hasler and Cooney 2002). The total UK market for sport and fitness related products, including sports equipment and clothing is estimated at £6.3 billion (FCO 1999).

To improve access to sport and activity for disadvantaged groups a programme was initiated in 1999 to provide Healthy Living Centres offering a range of health advice and support including physical activity and gym provision to 20% of the population in greatest need. This programme covers all home countries, it is funded by £300 million Lottery grants, managed by the New Opportunities Fund. Community sports and physical activity in England are also supported by Sports England and the Big Lottery Fund who are investing £108 million in initiatives with a special focus on areas of multiple deprivation (DH 2004). In December 2004 a further initiative was announced to combat obesity in children by providing two hours of sports and physical education in school hours and access to a further two hours of sport outside the curriculum. This is to be supported by additional expenditure of £459 million, bringing total spending to £1.5 billion in the period 2003-2008 (DCMS 2004).

The market for reduced fat and reduced calorie food reached £5.2 billion in 2000

and grew by 17.4 percent between 2001 and 2003 (Mintel International Group Ltd 2003). Over the next 15 years the public will be willing to engage with their health and pay for health products, but further measures will be required to inform their choices and to improve access for low income groups.

Local engagement in wellness must respond to and reflect community structures and leadership. The Local Government Act 2000 gave local authorities a new duty to prepare community strategies for local economic, social and environmental well-being (Office of the Deputy Prime Minister 2003). This draws from the experience of Health Action Zones in England, which started work in 1998, funded by £270 million government grants to build partnerships between health agencies, local authorities, voluntary and private sector organisations. These developed into Local Strategic Partnerships drawing on a range of resources and commitments for health and well being (DH 2004). While neither HAZ’s or LSPs have yet proved to be universally successful “Choosing Health” will attempt to build on best practice in the engagement of individuals and communities in health. Poverty is the single clearest cause of ill health and lack of access to health services, products and information (UK Public Health Association 2004). Local engagement is therefore focussed on disadvantaged individuals and groups.

The importance of the arts to mental wellbeing and health is increasingly realised and the Arts Council is currently producing a national strategy for arts and health, which may lead to systematic funding (Staricoff 2004).

Support for self care is supported by NHS Direct Services provided by nurse-operated telephone call centres and on-line services, which will shortly include a new range of Health Direct Services providing advice on health choices (DH 2004). In December 2004 a new Digital Interactive Television form of NHS Direct was launched on a satellite television channel providing access to some 3000 internet pages of health information and advice and video clips on a range of health topics (DH 2004). This is only the first step towards the provision of a range of television based services which can be tailored to support the self care needs of local groups and individuals. This will also be important in enabling people to maintain their own guides to personal health and wellness using the “Healthspace” facility to maintain their own electronic personal health plan. There are also a range of commercially funded television channels featuring health and wellness. It is estimated that the full cost of all such services could amount to some £300 - 500 million.

Further positive measures to support healthy behaviour are proposed in “Choosing Health” including the development of community champions for health, steps to promote corporate social responsibility for health, through business pledges to health, action to support health communities and provision of personal trainers to help individuals and families to address their health issues and adopt healthy practices. The White Paper also proposes a system of “Traffic Lights” markings operated by the Food Standards Agency to indicate foods that are healthy, need to be moderated or are unhealthy. As noted support for these and other measures to improve healthy choices will increase expenditure by £1billion.

**Lifestyle Factors**

Many of the costs of ill health may be attributed to lifestyle factors, which in some cases are also a source of tax revenues, as noted below:

* The costs of tobacco-related illness to the NHS are estimated at £1.5 billion per year. Tobacco taxes raised £8 billion in 2002/3 (ASH 2004).
* The direct cost of alcohol to the NHS is estimated at £200 million, the total cost of alcohol related sickness, absence, injury and crime is estimated at £3.3 billion. Taxes on alcohol raised £5 billion in 2002/3 (Alcohol Concern 2000).
* Obesity is estimated to result in costs to the economy of £3.3-£3.7 billion and obesity plus overweight results in costs of £6.6-£7.4 billion (House of Commons Health Committee 2004).
* It is estimated that Class A illegal drug use costs society between £10 billion and £17.4 billion per year (Health Development Agency 2003).

There are some fields in which taxation can be used as a means of reflecting the external costs imposed by unhealthy consumption through so called “sin” taxes. VAT rates and excise duty are applied to make healthy products and activities cheaper than unhealthy choices, for example, while retail food generally bears no VAT, certain products such as ice cream, crisps, salted nuts, confectionary and some other savoury snacks are subject to VAT, while alcohol and cigarettes also bear excise duty. Positive subsidy is also used to support healthy behaviour, for example health and fitness sessions can be prescribed by some GPs at reduced cost or free and the provision of free fruit at schools, which was funded by £42 million from lottery sources, has had substantial health benefits (DH 2001).

“Choosing Health” also proposes measures to ban smoking in public premises where employees or other customers may be subject to secondary smoking harm, this includes restaurants and bars serving food. This step reflects the success of action taken in Ireland and proposals for a more stringent ban on smoking in Scotland.

**Health and Work**

Ill health is a major cost to industry and work is a major cause of ill health. Total absence from work in 2002/3 resulted in 176 million lost working days, at a cost to industry of £11.6 billion. It is estimated that some 15 percent of these absences were not related to sickness, so the total cost of sickness was £10 billion. Absences increased from 2001/2 when 166 million days were lost (CBI 2004).

Another survey shows 32.9 million days lost due to illness were caused or made worse by work (ONS 2002). The main illnesses caused by or related to work were stress, depression or anxiety, which accounted for 13.5 million days off work and musculoskeletal disorders which accounted for 12.3 million lost working days. In total, 2.3 million illnesses were said to have been caused by or made worse by current or past work. The CBI survey quoted above showed that the higher levels of sickness and absenteeism were consistently recorded by large organisations and the public sector, as compared to small private sector companies. “Choosing Health” has recognised the importance of ensure that the NHS takes measures to make itself an exemplary organisation in providing positive health programmes for its staff and managing sickness and absenteeism.

Sickness and incapacity is a major factor in unemployment, in 2003 some 2.7 million unemployed adults claimed sickness-related benefits The diversion of some people from unemployment to incapacity benefits distorts the underlying trend in unemployment by up to one million (Beatty and Fothergill 2004 see also Bell and Smith 2004). The total cost to the public sector of disability benefit is £6 billion. The recent consultative paper on this topic is called “Pathways to work: Helping people into employment” (DWP 2005) it is proposed that from 2008 benefits paid to those with severe incapacity would be increased while those assessed with lesser levels of incapacity who could benefit from work, will have benefits reduced to the level of job seeker’s allowances unless they take steps to find employment.

European countries that achieve high levels of investment in public health: The Netherlands, Sweden and Finland, include substantial occupational health schemes to which all employers are obliged to contribute (CREDES 2002). In the US it is estimated 93% of companies offer health promotion and management (Kickbusch 2003). By contrast, though some employers provide a range of positive health programmes, UK employer contribution to public health is mostly limited to health and safety measures, (Health and Safety Commission 1999). “Choosing Health” notes the initiative by the Health and Safety Executive “Constructing Better Health” - an occupational health support pilot programme for the construction industry jointly funded by industry and government, which provides a range of health screening and positive health support elements. This could lead to schemes for other industries. Further investment in occupational health is called for by Dr Susan Robson, Chair of the BMA Occupational Health Committee (Robson 2004).

Some industries already incur substantial costs relating to health and environmental protection. As examples, the Water Research Centre estimates that meeting the 1991 EU nitrates directive will cost the UK some £4 billion (DEFRA 2003), while the cost of regulations regarding the control of asbestos at work asbestos was estimated at £4.8 billion (Gooday 2000), and the cost impact of the BSE crisis was estimated at £3.7 billion (Phillips, Bridgemen et al. 2000). This suggests a total annualised cost for such health and environmental externalities of at least £3 billion. Such cases are considered by specially constituted inquiries. In each case consultation leads to a decision to allocate costs between government, industry and the consumer, however, there is no mechanism for ensuring consistency in such judgements or for looking ahead at future potential risks.

The cost of road traffic accidents is estimated at £10.9 billion (based on actual costs and the amount people would be prepared to pay to avoid accidents) expenditure on road safety measures is estimated at £2.2 billion per year of which £1.2 billion is attributable to personal and business expenditure (PACTS 2000). The provision of advanced train protection systems are estimated to cost £6 billion over an unspecified period (Uff and Cullen 2001). In 1998 road traffic accidents were responsible for 3,421 deaths, and 325,000 injuries while there were 19 deaths and 2,710 injuries attributed to rail accidents.

**Global Health**

As Bruntland explained investment in health as a global public good is in our own interest “With globalisation, a single microbial sea washes all of humankind. There are no health sanctuaries” (Brundtland 2000). In 2003/4 the UK invested some £316 million in bilateral aid for health and a further £100-120 million through multilateral agencies (Lister 2004). In addition there were expenditures of between £1-2 million by the Health Protection Agency on international collaboration and disease surveillance. While all UK aid is ostensibly devoted to alleviating poverty and promoting sustainable development, investment in global health also serves to protect the long term health and security of the UK population. It has been suggested that the UN target of devoting 0.7% of GDP to official development aid should be supplemented by a further target for investment in global public goods such as health, from which all benefit and none can be excluded (Kickbusch 2004).

**Funding Health and Healthcare**

UK National Accounts for Health (ONS 2004) show total expenditures in 2002 of £80.6 billion (7.7% of GDP) from government, the private sector, households and charities for the healthcare purposes of:

* Promoting health and preventing disease
* Curing illness and reducing premature mortality
* Caring for persons affected by chronic illness who require nursing care
* Caring for people with health-related impairment, disability, and handicaps who require nursing care
* Assisting patients to die with dignity
* Providing and administering public health
* Providing and administering health programmes, health insurance and other funding arrangements.

It has not possible to assess all other costs of poor health to society accurately, but the figures noted in the preceding sections, (excluding those costs noted above and informal care) amount to some £35 billion. If the cost of informal care is taken into account it would amount to approximately £90 billion. Moreover, these broader costs of health are likely to grow over the next fifteen years, since in many cases they depend upon ageing and lifestyle factors that are difficult to change. By 2020 the UK may face 11.4% of GDP in healthcare costs as projected by Wanless and a similar amount for the broader costs of health and wellness, constituting in total over 20 percent of GDP in costs to individuals, employers, charities, local authorities and the NHS. This would follow trends in the US where the “wellness” market is estimated to have reached $200 billion and is projected to grow to $1 trillion over the next 10 years, comparable to healthcare (Pilzer 2002).

It would be helpful to extend the development of national health accounts, which follow OECD guidelines, to encompass the full cost of ill health to society (Lister, Ingram et al. Forthcoming). Health status could be used as an indicator of future health liabilities and investments in actions to promote or reduce future health status could be accounted for and monitored. It would also be possible to evaluate health impacts on and from the rest of the world as is done in the National Environmental Accounts to account for health as a global public good (ONS 2004).

While different country health systems are characterised as either social insurance, tax funded or private insurance based, in practice health costs are supported by a combination of funding sources as discussed below. Thus while countries such as France, Germany, Austria, Belgium and the Netherlands are primarily financed by social insurance they also draw on considerable local and central taxation support, the health systems of Spain are ostensibly social insurance funded but are managed by regional governments while Scandinavian countries, Italy and Portugal are primarily tax funded and Ireland has a complex mix of tax and social insurance funding with expenditures close to UK levels but with worse services in terms of quality and access. Sources of funding for European healthcare systems were examined by Mossialos and Dixon (Mossialos, Dixon et al, 2002) and were discussed by the Chancellor of the Exchequer in a speech to the Social Market Foundation (Brown 2002).

**Central taxation** currently funds 84% of NHS provision and NHS expenditure is 83% of total healthcare funding (CREDES 2001). Wanless stated that taxation should remain the basis for NHS funding and this view is supported by other commentators (Saltman and Figueras 1998; Mossialos and Le Grand 1999) who suggest that tax is the most efficient method of tax collection, the most effective way of controlling expenditure and the most equitable way of sharing health risks**.**

A different perspective is provided by Harrison and Moran who note that ‘free’ healthcare creates a moral hazard for patients to overuse health services and to disregard their personal responsibility for their health and that of their families, they argue that tax-funded services fail to provide incentives that encourage providers to treat patients with dignity and personal attention (Harrison and Moran 2000).

To counter these moral hazards, steps have been taken by successive governments to reinforce individual rights and responsibility for health and responsible use of services, see for example “Patient’s Charter” (DH 1996). Current policy is to ensure that patient standards are not only surveyed and monitored but are underpinned by patient choice, by December 2005 all patients will be able to choose between 4 or 5 providers of elective care, which should include NHS and Foundation Trusts, Independent Sector hospitals, NHS and Independent Sector Treatment Centres or extended Primary Care treatment Services (DH 2004).

It has also been argued that public payment systems lead to a moral hazard for health suppliers to induce demand and/or to focus on the most lucrative services. This argument has diminished in the UK since the introduction of the purchaser/ provider structure in 1991, however, it is still important to ensure that there is a balance between the powers of purchasers and providers (Donaldson 1989).

As in the UK, Canada has many pundits who claim that public funding will be unsustainable in the future and that greater reliance will need to be placed on private finance. Robert Evans argues that this claim cannot be supported by the empirical evidence and that those who make it are really supporting a pro-rich redistribution of payments and benefits, through a movement to private funding (Evans 2005 see also Evans 2002). Reinhardt argues that sustainability is not really about expenditure trends at all, but is a moral issue – a debate about what members of society owe each other (Reinhardt 2001).

**Local authority funding** for long term care and aspects of public health is estimated at £7.1 billion - 9% of total healthcare costs (CREDES 2001). Funding through local authorities (derived from local and central taxes) provides a way of matching services to local preferences and requirements, with broadly based democratic involvement. This may mean that clinical input to decision making is reduced and specialist medical needs may be overlooked. In relation to public health, the requirement to involve local people and to match actions to local needs may create benefits that offset such disadvantages. Since Local Authorities are responsible for a significant element of current public health expenditures and also control powers relating to economic and social development, increasing their capabilities in relation to other aspects of public engagement with health could bring greater local focus and coordination.

As already noted, for an increasing number of people the boundary between health and personal care is difficult to define. There are dangers of either applying inappropriate medical models to such people or subjecting them to a multiplicity of ill connected services provided by different agencies. Turning Point claim that £7.83 billion is wasted each year by the gap between health and social care services in England (Turning Point 2004). One solution is to establish a holistic view of social, psychological and medical needs for people with complex requirements and to fund whole packages of service to address such needs. This requires local authorities and PCTs to combine their funding and commissioning functions through Local Strategic Partnerships, but differences in funding mechanisms, lack of alignment of boundaries and differences in professional approaches pose problems. The Local Government Association, the UK Public Health Association and the National Health Confederation have recently proposed that boundaries should be aligned (The Local Government Association, The UK Public Health Association et al. 2004). This could lead to the development of further Care Trusts combining physical and mental health and social care (there are currently 8 in England).

Health and social care and are aligned, through integrated health and social care boards in Northern Ireland, Community Health Partnerships in Scotland and local partnerships between health and social care agencies in Wales. In Wales the review of health and social care advised by Derek Wanless in 2003 was critical of the performance of the system in delivering preventive care and saw this as one cause of the poor value for money achieved by health and care expenditure (Wanless 2003). The Welsh Assembly is therefore giving particular attention to this issue.

There is a case for funding long-term health and social care for people assessed as having multiple needs through a form of voucher or patient held budget, as is done in the Netherlands, since this would ensure that these patients could take the lead in choosing care programmes to meet their specific needs, are well integrated and take account of informal care. In Germany patients are offered the choice of a package of care or a lower cost payment to enable them to finance their own care (Wittenberg 2002). This does not suit all patients but could be a powerful force to integrate care for those with multiple needs and should be studied for application in this country.

**Social insurance funding** accounted for 11% of total healthcare and 13% of NHS funding in 2000 (CREDES 2001). In 2002 employer and employee contributions were increased as a way of meeting future health costs (Chancellor of the Exchequer 2002). National Insurance is not linked to health service provision as a contributory right and can therefore be regarded as simply another source of general taxation. While it would be possible to increase total National Insurance premiums to the level required to fund the NHS, this would have a number of serious disadvantages, it would increase employment costs and it would introduce economic instability since as employment declines demand for health services tends to rise (Acheson 1998).

Proposals for the evolution of various forms of social health insurance for the NHS have been put forward by the Health Policy Consensus Group including giving patients choice of the Primary Care Trust (PCT) they would contract with through a voucher scheme, PCTs becoming consumer mutuals owner by their patients or PCTs becoming provider-led healthcare maintenance organisations (Bosanquet, Browne et al. 2003).

**Other employer payments** are used in some other countries to provide occupational health services or to pay a tax to enable these services to be provided. Current employer contributions to the NHS through National Insurance have been estimated at £5 per employee per week (Brown 2002). Over the next fifteen years ways of improving occupational health in the UK may include encouragement and championing of best practice and possibly a levee similar to the funding of industrial training, which when first introduced, recognised existing good practice and required large employers to contribute to industry based schemes.

**Product or “sin” taxes** on items contributing to ill health are used by many countries to fund aspects of public health. In the UK, while there are taxes on tobacco, alcohol, gambling and some fast food products, there has been no link to health funding until 2002 when an additional tax on tobacco producing revenues of £300 million was introduced specifically as hypothecated tax for health purposes (Chancellor of the Exchequer 2002).

One problem with such taxes is that in many cases the relationship between causes of ill health and outcomes is complex, long-term and uncertain. As examples: asthma, allergies, obesity, and hyper activity in children are all rising rapidly but it is difficult to identify single causes. It is proposed that:

* Where a product, or practice is believed to contribute to a potential health problem a community group or public health agency would make a prima facie case for review.
* If accepted the vendor or producer would be required to pay a surcharge, which in aggregate would pay for the research, and to indicate that the product was under review, using the “Traffic Lights” system.
* As an alternative, producers may prefer to take steps to avoid being subject to review by voluntary compliance (such as reducing salt, sugar or fat levels).
* Research would then indicate evidence based regulatory action, which could include banning the product or service, limiting advertising, and displaying a warning using the “Traffic Lights”, for example, stating how many packets of a product would exceed the maximum recommended level of salt or the application of VAT or duty.

This proposal is intended to have a threefold effect, to reduce the consumption of harmful products, raise revenues reflecting the full costs to society of the ill health caused and signal health issues so that producers and consumers will address them.

**Private payment and insurance** accounts for 17% of total healthcare spending - £14 billion and 34% of expenditure on long term care - £4 billion.

The Social Market Foundation suggest that a privately financed sector is an important and growing part of overall health spending in the UK. It allows choice, provides a safety valve for those whom the NHS has failed and provides for innovation in responding to patients. They do not propose any form of subsidy to the private sector (Social Market Foundation 2003).

Moral hazards which apply to private insurance, include over consumption by patients, over treatment by health providers and adverse selection by insurers. HIV/AIDS and the availability of genetic information have raised the need to regulate health insurance to ensure no adverse selection on such grounds, however, health insurers can still target lower risk groups such as people of working age. Tuohy, Flood and Stabile, suggest that one reason why the provision of private healthcare in the UK has not resulted in a fall in NHS waiting times is because it is in clinicians’ interest to encourage higher levels of private treatment (Tuohy, Flood et al. 2004).

Long term care requires a combination of public and private insurance and payment (Weiner et al 1994). Options being explored to increase private insurance funding of long-term care in the UK include, development of a market for long-term care insurance and measures based on releasing a stake in peoples’ homes. These schemes are reported by the Treasury to have had limited take up (HM Treasury 2001). It is essential to find a long term solution that is affordable and fair to rich and poor and between generations a further study of this issue is required.

**Co-payment funding** in the UK is limited to prescription medicines (but 80% are exempt), adult dentistry and some services in hospitals (parking, televisions and amenity beds). Co-payments make up less than 5% of NHS funding and 11% of total health costs (co payment is much higher in the private sector). (Robinson 2002).

Co-payments canprovide incentives for more responsible use of health services, for example in Sweden patients pay a limited fee to visit their doctor and possibly as a consequence, they have the lowest rate of GP contact in Europe but a much higher rate of contact with public health nurses (CREDES 2001). However, research evidence indicates that co-payments can be both inefficient and inequitable leading to a less than optimal use of services, particularly by disadvantaged groups. The Chancellor of the Exchequer has expressed his opinion that co-payment can result in delayed primary care treatment and higher long term health costs (Brown 2002).

However, changing circumstances may suggest that there is a case for examining co-payment in the broader context of health. It would seem possible to apply co-payments to choices which do not affect the quality of health or health services, for example, there is no reason why the ingredient costs of patient meals should be lower than those served in prisons. Patients’ choices resulting in additional costs to the NHS could be surcharged, for example non-attendance at appointments has been estimated to cost the NHS £300 million per annum (Hamilton, Round et al. 1999). It is timely to re-examine charges for prescription medicines, dental charges (Robinson et al 2004) holiday vaccination, travel and other items to ensure that they do not have negative effects for health or equity. The Welsh Assembly and Scottish Parliament are already committed to eliminating prescription charges (Citizen's Advice Bureau 2001).

**Capital funding** of the NHS in England, is dominated by public -private partnership investment. Investment in capital stock in the NHS in the form of buildings is currently estimated at £3.3 billion per annum, 70 percent of this is provided from private sources (DH 2002).

In 2001, there were 64 major public -private partnership construction schemes in progress with a total capital cost of £8.5 billion. A further 29 new hospital schemes were announced in that year (DH 2002). In addition, the NHS Plan proposed 20 new Diagnosis and Treatment Centres funded by public-private partnership and eight more centres have since been proposed (DH 2004). In 2003, the Local Investment Finance Trust scheme was introduced for the development of primary and community care facilities again by public -private partnership (DH 2004). The NHS Information Infrastructure (NHSII) project was announced in 2004 financed by private sector resources with a total cost of £6.2 billion. In total, the Treasury estimate that 28.4 percent of capital investment for the NHS in 2003/4 will be from public sector funding (DH 2002).

The Health Industries Task Force estimates that the total annual technology investment budget of the UK health industry at 2003/4 is £7.4 billion (HITF 2004). Of this £5 billion was the estimated private sector investment (some £3.5 billion being attributable to pharmaceutical company research), £750 million was from charitable sources (approximately £500 million from the Wellcome Foundation) and £1,537 million was from public sector sources (£310 m for the Higher Education Finance Committee mainly Medical Schools, £440 m for research councils, mainly the Medical Research Council, and £617 million for departmental research programmes, mainly the NHS). There are indications that very substantial investment in both the science base of healthcare and in public health has the potential to transform health in the first half of this century. The Government notes that this investment will require public/private partnership and a clear mechanism for directing and utilising such investment to improve the health of the people (DH 2003).

The subject of public-private partnership remains intensely contested. Pollock argues that it is not only uneconomic but undermines the basis of the NHS (Pollock 2004). The Government’s position is that the creation of a mixed economy of provision, with fair competition and transparent cooperation between public and private sectors can bring greater creativity and advantages from both sides (HM Treasury 2000). Maynard notes that the level and source of investment in further healthcare resources by public or private funding is less important than the direction of health and medical effort towards evidence based practice in both public health and healthcare (Maynard 2005).

While all three major political parties endorse the principle of public-private partnerships in England, the political climate for public -private partnership for investment is less welcoming in Scotland and Wales. This may prove a test of alternative policy futures with an increasingly mixed economy of healthcare provision in England and more reliance on public sector management in other home countries.

**How Should the Money be Spent**

Over the long term increased wealth has been associated with higher investment in healthcare and with improved health outcomes in OECD countries (Or 2001) and in WHO member states (Anand and Barnighausen 2004). However, it is not true that countries spending more on healthcare always achieve better health outcomes - according to the available measures - than those with lower levels of expenditure. For example Scotland spends some 18% more per capita and achieves worse health outcomes than England and the US spends more than twice our level and still achieves worse health outcomes. Nolte and McKee recently carried out a more exhaustive review, which shows that in the 1990s only 16% of mortality in the UK was due to causes amenable to healthcare interventions (Nolte and McKee 2004). They suggest that beyond a certain level, the overall impact of further improvements in healthcare services or access on mortality is difficult to detect.

Thus, while it is necessary to invest in healthcare to meet public expectations, it is also important to develop public awareness that healthcare investment by itself cannot produce good health and that responsibility for managing health risks starts with the individual, the family and the community. This is not a message that can easily be delivered from Government, it requires local leadership for health.

Within healthcare the National Institute for Clinical Excellence (NICE) has established a process for evaluating the evidence base, consulting with all parties and producing guidelines against which action by the NHS is assessed by the Health Commission. This is potentially a powerful lever to direct healthcare funding and improve clinical performance. The keys to its success over the next fifteen years will be the capacity of NICE to complete guidance in all needed areas, the ability of the NHS and Healthcare Commission to ensure that guidance is followed through by funding and implementation and the perceived authority and competence of NICE and the health technology and economic assessment units with which it works.

NICE guidelines for economic evaluation as described by Sculpher are appropriate to clinical health technology assessment (Sculpher 2004). However, these methods, which require the evaluation of the impact on Quality Adjusted Life Years (QALYs) measured in standard ways and modelling of the uncertainties of cause and effect are much more difficult to apply to complex conditions such as multiple chronic diseases and mental illness and are not relevant to long-term strategies for addressing the determinants of health. It will be difficult, but very important to develop methodologies for Health Impact Assessment relevant to action on broader determinants of health.

A National Institute for Health and Clinical Excellence (NIHCE) is proposed in “Choosing Health”; it will be created by merging the National Institute for Clinical Excellence and the Health Development Agency. This body could play a very important role in advising on and directing funding for public health and addressing the wider determinants of health. It is suggested that the new body should:

* Produce a national plan for the health of the people along the lines of that developed by the National Institute of Public Health in Sweden (Ågren 2003).
* Advise on the shift in priorities and expenditure from acute treatment to long-term chronic conditions such as mental illness.
* Develop measures of community and individual health risk as a basis for investment for health and other decisions affecting health and environmental risks (e.g. nitrates, train protection, asbestos).
* Advise on the use of measures of community health risk as a basis for funding PCT action on health protection and disease prevention.
* Advise on how to evaluate programmes of social marketing for health and different forms of local engagement and champions for health.

In all such matters it will be important for NIHCE to create a process to reach consensus and a common understanding with representatives of the public and all the agencies involved. The agency would benefit from a clear and independent identity separate from Government but able to advise on health policy issues. It will be important for this English agency to work closely with similar bodies in the other home countries as there are aspects of health, which require a UK wide approach.

At PCT or Health Board level Directors of Public Health produce annual reports, which are an important starting point for Health Improvement Plans and their equivalent in other home countries (DH 1998). These are intended to direct funding and action by local authorities, health agencies and other local partners to improve health. The reports and plans include measures of general and disease specific health status and risk but at present there are few specific links to funding for action on health determinants, in part because the evidence on the cost effectiveness of actions is often felt to be weak and of less pressing concern than other targets. It will be important to address this funding issue, recognising that investments for health are often longer term and more uncertain than investment in healthcare. It is suggested that NIHCE (and its equivalent in other home countries) should monitor investment for health and impacts should be reviewed by the Healthcare Commission.

The role of PCTs and GPs in commissioning services is crucial to the cost effectiveness of health spending in England. It seems likely that new forms of PCT commissioning will arising including specialist joint care commissioning, commissioning for children and elderly care services and new agencies will emerge to support specialist commissioning for people who require different forms of integrated health and social care with significant elements of self care. Integrated care commissioning may use new information and communication technology to monitor and support patients and their carers. Such developments could learn from integrated care management in the US (Lawrence 2002).

**Summary of Recommendations**

Over the next fifteen years it will be essential to ensure that the Government is able to address the full costs to society of health and to engage with all sectors. A new Health of the People Act should express the responsibilities of all parties for health and their rights to health and healthcare (Monaghan, Huws et al. 2003).

The Department of Health should continue to step back from the management of local health and care services in England whilst developing the capacity of agencies responsible for the administration and commissioning of health and social care services provided by a mix of community, private and voluntary sector providers, regulated and advised by expert, consensus forming agencies.

A broad cross party consensus should be sought on the stewardship of health, to provide a framework for strategic direction, funding of health and care, evidence based policy development and implementation, regulation of healthcare, health impact assessment, intelligence and information and national leadership for health. Such a framework should recognise the role of government in setting policy but should seek to establish the stability required by the NHS, the private sector, charities, communities and individuals for long term commitment to health.

Departments of Health in other home countries have the advantages of smaller scale and a common structure of local authorities and health agencies. They are pursuing different development paths, which create opportunities to learn from experience. This is particularly relevant to the success or failure of public-private partnerships.

Detailed proposals for the future funding of health include the following:

* The NHS will be funded primarily through taxation, but must improve commissioning skills to manage resources in an era of cost containment.
* Other sources of funding including co-payment, private insurance, product taxes and employer contributions to occupational health should be examined and evidence of their effectiveness and impact on health equity reviewed.
* Long term residential care should be funded from a system of public insurance supplemented by private insurance linked to pensions, property ownership and inheritance.
* Primary Care Trusts should be developed as community owned health maintenance organisations with incentives for investment for health.
* Measures should be taken to support and strengthen the commissioning function, including innovations in commissioning integrated care.
* Local Authority and health agency boundaries should be aligned, and must work together to address long term physical, mental and social care needs.
* Taxes and subsidies should be used to support healthy choices by making healthy foods and activities cheaper in relation to none healthy choices.
* The National Institute for Health and Clinical Excellence should advise on cross sector policy and funding and produce a national plan for health.
* NIHCE should also advise on investment in social marketing for health and develop clear links with and ownership by local champions for health.
* Information services should be strengthened to educate, inform and empower people to take healthy choices for spending and consumption.
* Industry based programmes for occupational health, should be developed by championing best practice and possibly some form of regulation and levee.
* Dutch and German experience of patient held budgets should be examined and introduced to support long term care, including support for informal care.
* New initiatives should be supported to improve integrated care provision and commissioning for people with complex physical/ mental/ social care needs.
* A unified process to identify, research and take action on unhealthy products and practices, should be introduced funded by producers and retailers.
* Health status improvement should be measured and used at community level as a basis for investment for health and to support personal health choices.
* The national accounts for health should be extended to recognise the full cost of health to society and health as a global public good.

In reflecting on these proposals it may be helpful to pose the question “who is going to pay the price of lack of investment in health?” In the US, experts are predicting that the current generation of school children will live shorter and unhealthier lives than their parents, as a result of obesity, poor diet, lifestyle and inequality (Brownell 2004: Jacobs and Morone 2004). In the UK a similar case has been made (Stoate 2004). While it seems more likely that average life expectancy will continue to rise in the UK, increasing rates of obesity and lack of engagement with health amongst lower socio economic groups will mean that the poor will continue to bear the greatest burden of ill health unless public health measures are greatly improved.

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