THE GLOUCESTER LECTURES

Critical Choices

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MAN does not live by bread alone. It redounds to the credit of the Chairman, members and officers of the Gloucester Health Authority that, by endowing this annual lecture, they acknowledge the ennobling force and perennial truth of this ancient maxim. They acknowledge that, even at a time – or perhaps particularly at a time – when health services are expected to carry a heavier burden than ever before, those who share this task may wish to pause in their daily round to come together and think about their common goals, problems and assumptions.

It is my hope and expectation that this civilised and civilising initiative will bring its own reward. For, while all the tangible resources of this world – land, raw materials, labour and skills – are and ever will be limited, there is no limit to thought, to knowledge and to ingenuity; and it is the human mind and intellect which, over the centuries, have brought about institutional and production changes to overcome material constraints.

To have been chosen to deliver the first in this series of lectures is a great honour and a daunting challenge. The honour is the greater for being bestowed by a district with which I was closely and affectionately associated for many years. While I am certainly no prophet, this surely is my own land.

The challenge arises not only from the timing of the lecture – a time of unprecedented tensions and stresses in the NHS – but from the place which lends its name to the series. No speaker here can fail to be inspired by an intellectual tradition exemplified in Gloucestershire by that radical Victorian thinker and medical reformer, Henry Wyldbore Rumsey FRCS. In his lasting contributions to the reform of the Poor Law medical services, he joins the ranks of such giants as Florence Nightingale and Edwin Chadwick. No one speaking here can fail to be daunted by the example of one who was described in his own day as 'a distinguished writer on the various relations of State medicine; writing of them always with true public spirit as well as large information, and with a special zeal for completeness and method'; and of whom it is said by a present day author that 'armed with a detailed familiarity of the oper-

ations and philosophy of the service, and supported by a resilient humanity and almost unbelievable persistence, [he] struggled skilfully and unceasingly in the face of persecution, obstruction and immense hostility for improvement in the system'. Who among us could ask for a finer memorial, which speaker could have a better example?

In Rumsey's essays and in his memoranda to government, choices loom starkly: choices about the training and qualifications of doctors, about the administration of curing and caring services, about acute medicine and public health measures and the organisation of both.

My subject today is also about choices, more particularly about choices which seem to me to be critical. It must be said that, in today's slovenly and cliché ridden way with words, every choice is 'critical', just as every reverse is called 'tragic' and every decision, however trivial, is said to be 'crucial'. I shall use 'critical' in a much more restricted sense. A choice, in the present context, is critical if, first of all, it has weighty and far reaching consequences; secondly, if it is a choice between alternatives both of which have some undesirable consequences, that is if they represent a genuine dilemma.

For an individual, an example of such a choice would be between getting married and remaining single: the consequences are weighty and far reaching, and neither the married nor the single state is without disadvantage. In the diaries of the young Charles Darwin, we find him listing in separate columns the disadvantages of marriage and bachelorhood. For him, as for any other individual who only chooses for himself, the critical choice can be resolved relatively easily by attaching his own individual values to the costs and weighing them against the benefits.

However, for a group of individuals, the choice – say between more taxes or fewer welfare services, or between fewer jobs or fewer amenities – is far from simple, because of the very great difficulty of establishing, weighing and aggregating the values of all the individuals affected by the decision. It is this difficulty – a difficulty which is both theoretical and practical – which makes such choices of perennial interest to philosophers and

politicians, to economists and public servants, to those who make decisions on behalf of others and to those on whose behalf the decisions are made.

Most of those present here bear a double responsibility in the resolution of critical choices about health care. Firstly, and most obviously, because they make and are expected to make such choices. This part of the responsibility extends from the management tier where the explicit allocative choices about resources are made, to clinical personnel who not only make implicit decisions about resources, but mediate and modify the patients' demands for services. And it extends to virtually everyone who, in one way or another, plays a part in the system. To some the choices they make – how to allocate their time and skills among tasks and people – may seem to fall outside the critical area by being too restricted and insignificant. But cumulatively, over time, such apparently minor choices often decisively influence the course of events.

The second responsibility is paedagogic and is often neglected. It is the responsibility for the special contribution which all those in the service make or should be making to the debate about critical choices in the wider context of the society in which they live. In the pub, in the club, round the dinner table, in the press and on television panels, their views – seen as the views of 'experts' and 'in the know' – carry special weight and profoundly affect not only public perceptions but local and national policies about health care. The second role, as much as the first, makes it essential that everyone working in this sector of national life should approach critical choices with the respect and humility which their importance deserves.

How then are these choices to be made? In every case our choice must be informed by compassion – compassion for the individual and for the human predicament. Never must we exalt the easy political, bureaucratic or self-serving generalisation over the painful particularity. We must always remember that generalisations, be they narrative or statistical, are – as has been rightly said – 'people with their tears wiped off'.

But compassion is not enough. Nor is the public spirit. We need, as did Henry Rumsey, 'large information and . . . a

special zeal for completeness and method'. And I shall devote the rest of this lecture to trying to show – albeit briefly and *very superficially* – how large our information, how earnest our zeal and how meticulous our method need to be if we are to discharge our twin responsibilities decently and with a good conscience. The reliance on the easy anecdote, on the extreme case, the convenient neglect of proven facts and of new knowledge can only bring us, professionally and as a service, into disrepute.

The critical choices in health care are hard, but they must be faced squarely. They centre on economic and ethical problems and sometimes on both. The economic ones focus on the concept of opportunity costs – on the costs, that is, in terms of foregone opportunities both within and outside the health care system. In the light of this concern, they concentrate on the three dimensions of the system: volume, access and quality. The ethical problems arise out of our concern with the inalienable rights of individuals to justice, self-determination, dignity, privacy and religious or moral convictions.

All too often these issues are being presented as if they were not critical choices. But, presenting them in absolute rather than in relative terms trivialises the debate, converting the energy of the discussion into wasted heat rather than much needed light.

Let us begin with volume. There is a hierarchy of critical choices about volume and we shall deal with them in descending order: first, what proportion of its wealth should the country devote to the explicit purposes of health maintenance and improvement in preference to other purposes? Secondly, what proportion of that sum should go to curative and health care services as compared with other health promotion measures? And thirdly, within curative and health care services, what proportion should be devoted to individual specialties, to groups of patients and to individuals?

Many of the factors which should be taken into account in these choices are not yet fully understood. But, as Wellington said: 'All the business of life is to find out what you don't know by what you do'.

We know that nations – regardless of the way in which they organise their health care – have the propensity to spend a larger proportion of their wealth on health care the larger that wealth is. Thus, those with twice the per capita wealth of ours will spend more than twice the proportion of a two times larger wealth than we would. Those with only a tenth, will spend less than a tenth proportion. This points to the conclusion – reflected also in the behaviour of individuals – that up to a certain point other wants are more urgent than health care, but beyond this point health care takes precedence. This is entirely rational: unless you have what is needed for survival – security, shelter, warmth, food and skills – health care is pretty meaningless. But once you have the means of survival, you look to the contribution that health care can make to that survival. Obvious though this must be, it is often overlooked in the debate for funding.

We know that the growth of our national wealth is, relatively to other countries, slow and sometimes (in absolute terms) static. For the past decade it has certainly not been fast enough to fund what we, in the Service, regard as the 'objective need' for growth of expenditure, in which we include demographic changes, medical advances and the often forgotten differential between the Retail Price Index and the Hospital/Community Price Index. To fund this growth the proportion of expenditure on health would have to be increased at the expense of some other expenditure. Which other expenditure should then be decreased?

In a short lecture, one cannot do more than touch upon the relevant arguments. But even a cruelly oversimplified account should show that the issues are not easy ones and that it behoves us, as a large and influential lobby, to address them both seriously and explicitly.

We know that we spend a relatively smaller proportion on defence than the two superpowers, but relatively more than some other developed countries. The need for this depends on conjecture about future international relations and on one's subjective perception of this country's need for prestige, position and influence in the world. This obviously needs

not we – supported by our community physicians who, after all, are the linear descendants of Rumsey and Chadwick – make a more positive contribution to the debate by gathering and making explicit the costs and benefits of public health legislation compared to those of, for example, curative medicine?

The critical choices most immediately within your remit are those about the relative volume of individual specialties and services. They are getting daily more pressing and more intractable. This year and next, electoral advantage may provide funds or the promise of funds which will give temporary relief. But the problem itself will not go away. The difficulties are partly substantive and insoluble, but partly also due to inherent inertias.

The substantive difficulty is the growing gap between what is feasible and what is affordable. With new weapons being rapidly added to the clinical armoury, this gap affects all nations and will continue to become wider everywhere. Non-invasive treatments and long term drug regimes which are likely to be at the forefront of these developments, will entail a shift in the utilisation of resources but not reduce pressure on them.

It is widely held by the scientific community that we are on the threshold of a wave of innovation not unlike that in the middle of this century when improvements in anaesthesia and the advent of antibiotic and psychotropic drugs did so much to increase the scope for surgical intervention and to reduce the number of psychiatric and medical beds, and when polio, TB and other vaccines came to relieve pressure on services.

We read about new developments in biotechnology likely to increase the importance of vaccines: thus, for instance, recent research points to the hope that Type I insulin dependent diabetes will be recognised as a post-viral phenomenon and a vaccine may be developed which could effectively eradicate this illness. We read about the discovery of neural transmitters which holds out the promise of our eventual mastery over the horror of Altzheimer's disease. We read about the rapid growth in the understanding of cartilage metabolism which may allow us to mitigate and perhaps conquer such scourges as arthritis

and allied rheumatoid diseases. We read about fruitful research in the triggering mechanisms of asthma and about the new world of monoclonal antibodies, oncogenes and lymphokines to assist and activate the body's own defence systems. Though, of course, we also note the emergence and spread of new diseases and of increasingly drug-resistant bacteria.

How are we going to accommodate these developments in budgets which will grow slowly, if at all? At the moment, we are trying to create a breathing space by unloading as much expenditure as we can on others: on the open-ended budgets of general practice, of the consumer, and of social security, and on the cash limited budgets of the local authorities. And by efficiency measure which, though entirely laudable and often much overdue, must eventually yield diminishing returns.

Our last resort is to cut – often by administrative decision – the services themselves, with little sound medical evidence either way. Objective medical evidence remains strangely muted, because there appears to be an unwillingness and a lack of the necessary skills to analyse and debate the relative risks, costs and benefits of clinical practices, regimes and procedures. Such debate as there is, concentrates, in absolute terms, on the most advanced frontier of medicine such as organ transplants. Unless we carefully examine, and where possible discard, established but ineffective or less effective approaches, we cannot create room for progress. This is a vital component at the root of the innumerable critical choices we now have to face in deciding between specialties, locations of services, training needs and capital versus revenue expenditure. It may well be that our relatively slow progress in adopting new methods – such as day surgery, lithotripters, lasers and transcutaneous nerve stimulation – is due to our unwillingness to assess and pay attention to relative advantages and disadvantages.

Management audit, so hotly pursued today, is a necessary but not a sufficient condition for the better deployment of scarce resources. Rigorous and unremitting clinical audit is now of essence. It is to be fervently hoped – by consumer and provider alike – that this very difficult but ultimately so rewarding task will find a more important place in the syllabuses

constant reappraisal.

We know that we pay more taxes than some, but less taxes than many other developed countries. And that revenue expenditure, both private and public, tends to take precedence over capital investment and has done so for many years. The theoretical territory is being fiercely fought over by opposing schools of economists. One school argues that fewer taxes will generate private consumption and thus stimulate the economy and the growth of profitable sectors and that public investment will lead to distortions in the market and to monopolies damaging to the consumer. The other school believes that public investment, from public sector borrowing if need be, should be used in times of slump to stimulate the economy and that public enterprises can be used to lead this thrust. In practice, both approaches exhibit serious flaws. Reduced taxes lead to increased imports and stimulate the economies of our competitors; the disinvestment in public utilities leads to private monopolies. Overall the productive forces of the country, particularly labour, seem to be wasted. On the other hand boosts in public sector borrowing and expenditure seem incapable of the fine tuning needed to prevent inflation and the rise in interest rates. Moreover, rich countries (just like rich individuals) can borrow more freely and get away with huge deficits – we see this today in the USA – whereas poor countries are denied this escape from their difficulties. Thoughtful people must now look to major institutional changes to achieve a national consensus about a sensible balance.

When looking at education and transfer payments as possible major budgets to be cut in favour of ours, we are on firmer ground. We know from large scale studies in the USA which tried to discover which external factors most influence the health of individuals that the highest significant correlation was found to be with the educational level of the family, particularly with the educational attainment of the mother. Health indices and pilot schemes elsewhere, most recently in Sri Lanka, seem to be telling the same story. This is not a budget which we should raid if we wish to promote health.

We are left with transfer payments such as pensions, unemployment pay, social security, child allowances, housing benefits, disability pay and so on. We know from government figures published recently that one person in four (including for the most part recipients of transfer payments) now lives at or below the poverty line. The concurrently published decennial survey by the OPCS shows that the income gap between the recipients of such benefits and the rest of the population continues to widen and so does the gap in life expectancy and morbidity. Those who remember the findings of the Black report must consider this trend very worrying.

If we remember what we said earlier about nations' propensity to spend on health care, we now see, as it were, two nations emerging: three quarters of the population wishing that more be spent by the Government on health, without increased taxation. But that, if this growth were to mean a reduction in transfer payments, the health of one quarter of the population would suffer quite disproportionately. I yield to no one in my passion to see better health care. But, particularly at this time, I am uneasy that the ever louder and electorally so seductive cry of 'More money for the NHS' may have inherent dangers, unless it is always qualified by an explicit rider as to where the extra money is *not* to come from.

Let us move to the distribution between curative medicine and environmental, public health measure. We know from medical history that the former makes only a marginal contribution to health when compared with the latter. But the benefits of environmental health measures are slow in coming and rarely come in the lifetime of the government which introduces them. On the other hand, the costs are immediate and come, ultimately, from the GDP. These costs were the main weapon of those whose 'persecution, obstruction and immense hostility' Rumsey had to overcome. He carried the day partly because of his persistence and information, but partly because in his day the GDP grew at such an astonishing pace that Paul could be paid without Peter feeling it. In this critical choice – as in so many others – we suffer from lack of information, more particularly from lack of evaluative studies as to benefit. Should

and in the thinking of our clinicians, nurses and paramedical personnel.

There are those who believe that we can escape the critical choices about volume by shifting the problem onto the critical choices about access. They contend that our problem of supply arises because we do not allow the free market forces to determine demand.

The debate about access has become increasingly political, with all that this implies in terms of dogma, prejudice and irrationality. We are here concerned with the underlying arguments which are, of course, economic, because we are looking for an economically optimal employment of resources. No one has yet improved on the formulation of the opposing arguments as presented, some 25 years ago, by two Nobel laureates in economics: Milton Friedman of Chicago and Kenneth Arrow of Stanford.

Friedman opposes systems based on compulsory national insurance or on taxes in favour of private, voluntary insurance and direct purchase, because only the latter allow the consumer to decide how much health care and of what kind he wants. To create a free market, he proposes to abolish all licensure of doctors, nurses and other health care personnel to prevent monopolistic practices: anyone could practise, if he can attract customers.

Arrow, on the other hand, maintains that there cannot be such a free market, because health transactions take place not between supplier (doctor) and consumer (patient) alone, but involve an equally prominent third party, namely the payer (be it the State, the insurance company or, at one remove, the employer). Secondly, because the supplier – be he a doctor or an unlicenced quack – is the one who decides what the customer should have. The customer has no knowledge of the product (that is, the kind, quantity and quality of treatment for his complaint); nor can he acquire such knowledge, because most of his important purchases in this field only take place once in a lifetime. We can compare and choose which brand of baked beans we prefer; we cannot compare appendectomies. Finally, Arrow points out, a free market in health care or one

which tries to mimic it, cannot deliver an economic optimum, because rich and gullible customers will be persuaded to buy more than they need, while others will get less than they need.

To what extent have these theoretical arguments been verified or falsified by events? In fairness, it must be said that no one has fully tested Friedman's proposals, because no country was prepared to abolish licensure. But we know that private insurance systems have suffered disproportionately from escalating costs, that they have not resolved the problems of volume or affected countries' propensities to spend on health. Comparative statistics also seem to indicate that part of the population receive more medical intervention than they need, particularly in elective surgery such as hysterectomies, prostatectomies, prophylactic heart by-passes, appendectomies, and so on; while others fail to gain access to primary care.

It is in the light of these indications that the NHS system is considered by most people here and many elsewhere to be the best in the world. It is seen as delivering 'the best deal' as it were. To conflate our problems of volume with our methods of access is counterproductive.

In spite of tax off-sets amounting to some 20 billion dollars annually, private insurers in the USA are forced to tackle increasingly pressing problems of volume by more and more exclusion clauses and by restricting free choice. They do so by specifying so called 'preferred providers', that is certain hospitals and doctors with whom they have negotiated diagnosis related costs, and by introducing systems of co-payment by the patient to modify demand and by practices to modify supply.

The example of co-payment which has attracted most interest in this country is that of health maintenance organisations (HMO) which is said to motivate both patients and clinicians to economise. However, preliminary findings of two massive government funded studies lasting three and five years respectively indicate that health outcomes for certain groups – such as the poor, the chronically ill and the elderly – may be less favourable in HMOs.

The concept of 'preferred providers' is also beginning to attract attention here. If health authorities could bargain and

negotiate patient-related prices of diagnoses refined by age and severity indices and for population-related service contracts in community health services, is there any reason why they, rather than private entrepreneurs, should run hospitals and clinics? Would not private providers tend to lower prices and offer quality when competing for authorities' custom?

To some extent, as you know, this is already happening, as we are being urged to transfer certain categories of patients to private nursing homes and certain elective surgery cases to private hospitals. Neither type of transfer has been properly evaluated: firstly, because we have never built proper nursing homes (in spite of urging from some of us); secondly because our costing is not yet sophisticated enough to compare prices for procedures; and thirdly because objective evaluation has never played the requisite role in our management.

However, as far as DGH services are concerned, it would seem to me that the majority of provincial catchment areas cannot economically sustain more than one such hospital. Thus, after a necessarily costly price war, monopolies would be created with all the attendant disbenefits.

No system can create sufficient volume to avoid rationing of access. And let us remember here that we are talking not only about high technology interventions such as dialysis and transplants, but about, for example, GP time, visits by community nurses, drugs and physiotherapy. If we reject rationing by the purse, is there any other kind of rationing which is intellectually, ethically and emotionally acceptable? Most of us would reject as unethical rationing by age alone or by some criterion of social worth and usefulness; and the throw of dice, even though perhaps just and fair, would seem to most of us too irrational.

The cruel law of diminishing returns teaches us that the nearer we move to the margin of survival the less benefit will accrue for the costs incurred. Introspection also teaches us that length of survival alone cannot be our guide and that the quality of that survival matters. However, to translate this knowledge into workable practice is extremely difficult. Society tends to avert its face from these agonising choices and the academic

establishment – in medicine, sociology, psychology and economics – has contributed little to their solution.

With one exception. Harking back to work started in the 70s by the US Office of Technology Assessment, Alan Williams and his colleagues at York University, Torrance in Canada and others, have taken the first, very intricate steps towards the development of a calculus which combines survival with quality and costs, expressing the result in units called QALYs. A proper discussion of this approach, of the subjective and objective components of the calculus and the weights attached, is not possible here. But I believe that it deserves to be debated in the first instance by those who manage and provide services and, later, in a wider, national context. To whet your appetite for such a debate, I quote an example from a recent lecture at the British Association for the Advancement of Science meeting in Bristol. (A lecture, incidentally, from which I have drawn elsewhere in mine.) At a cost of £20,000, the treatment of an AIDS patient in the virulent stage of the disease (a stage which may manifest itself late or not at all in such a patient) would yield, if we combine average survival of 400 days with the quality of this survival, one QALY. The same money would yield 26 QALYs if spent on hip replacements and 119 QALYs if spent on GP consultations. We shall not take the choices about access any further today, but I believe that future Gloucester lecturers will continue to return to them, probably better armed than I am to instruct and to inform.

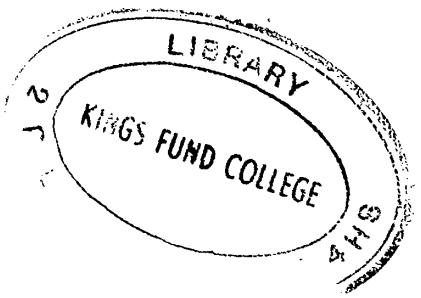
Lastly, we turn to critical choices about quality. By quality here we do not mean the quality of survival of patients nor the quality of the 'hotel' services, such as the thickness of the carpet, the courtesy of the staff and the acceptability of menus, though both are, of course, extremely important in other contexts. Our concern here is with the quantifiable aspects of medical practices assessed in terms of, for example, preventable deaths, unnecessary hospitalisation and referral, iatrogenic illness, preventable complications, infection rates and such like.

Apart from the Confidential Enquiry into Maternal Deaths, we have no formal and pitifully few informal mechanisms in the NHS to monitor quality and make choices. In this area we

are falling badly behind other English speaking countries. Many of the technical and mechanical difficulties of the task will disappear with the introduction of computers into wards, medical records offices and specialties. Is it not time that the professions faced the substantive difficulties of the task – and there are quite a few – by thinking about and agreeing protocols for continuing assessment, peer review and clinical audit?

Audits of costs, risks and benefits and audits of quality of treatments would contribute greatly to the individual's and the society's ability to make more rational and more acceptable choices in the three areas of volume, access and quality. They would enhance the professional stature and authority of clinical carers and make medicine a truly scientific discipline rather than an art which relies on other sciences. And, made explicit, they would allow us all to pay greater heed and respect to the personal autonomy, the dignity and the humanity of the patient.

You have been kind enough to accompany me on a gentle, albeit hurried, walk over some hard ground – much of it well trodden – in the foothills of my chosen subject. We have glanced together at the high peaks which we must still scale and at the paths which may make the ascent possible and sensible. But I hope that the prospect of the difficult journey ahead does not blind you to the landscape you have already traversed. It is a sunlit landscape, warmed by your own and your predecessors' endeavours and strivings; and illuminated, as should be the peaks above you, by a well founded social optimism of which the NHS remains an outstanding confirmation.



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