Nuffield Series No. 1

Re-designing health services

Reducing the Zone of Delusion

Morton Warner

Introduction by
John Wyn Owen

The Nuffield Trust
FOR RESEARCH AND POLICY
STUDIES IN HEALTH SERVICES

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A paper prepared for an Inaugural Lecture at the University of Glamorgan April 1997

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A NOTE ABOUT THE AUTHOR

Morton Warner was educated as a social scientist and trained as a social worker, practising in children's services and probation in the UK and Canada in the late 1960s.

Serendipity took him into the world of health in 1970 at the University of British Columbia in Vancouver where he developed, with Anne Crichton, the MSc in Health Services Planning.

1983 saw a return to the UK to a short-lived stint in the private health sector, followed by service with WHO in the Caribbean. Relationships with WHO have since been broadened through Directorship of a Collaborative Centre for Health Strategy and Management Development in Europe which began in 1992.

From 1989-1995, he was Executive Director of the Welsh Health Planning Forum, part of the NHS in Wales, taking up his current position as the founding Director of the Welsh Institute for Health and Social Care at the University of Glamorgan in October 1995.

INTRODUCTION

Re-designing Health Services – Reducing the Zone of Delusion is the first in a new Nuffield series which will inform the debate on shaping health services in the United Kingdom. Publication coincides with our renaming and the re-design of the Nuffield Provincial Hospitals Trust as the Nuffield Trust with its focus on new knowledge, policy development and practice. This Nuffield series will include contributions to the wider health policy debate as well as, from time to time, a set of publications devoted to particular topics. The health economics series, for example, will be published later this year.

Many governments across the world are currently reviewing their health services and attempting to find an appropriate approach to financing, organising and delivering health care services. I have always expected quality health services to have three hallmarks: health gain – added years to life and quality life to years; a focus on people, both patients and staff at all levels; an effective use of resources.

Last year in Europe the WHO Ljubljana Charter[1] summarised that a health care system should be:

- driven by values of human dignity, equity, solidarity and professional ethics;
- targeted on protecting and promoting health;
- centred on people, allowing citizens to influence health services and take responsibility for their own health;
- focused on quality, including cost-effectiveness;
- based on sustainable financing to allow universal coverage and equitable access;
- oriented towards primary care.

[1] *The Ljubljana Charter on Reforming Health Care.* World Health Organisation, Regional Office for Europe, Copenhagen, 19th June 1996.

INTRODUCTION

There should be local autonomy within an agreed national framework and, in line with the evolving debate on devolution, clear roles and responsibilities for Westminster and Whitehall and the emerging arrangements in Scotland, Wales, Northern Ireland and the regions of England. Continuity of care and working partnerships and alliances should be underpinned by modern planning arrangements to contribute to better health.

The most successful health systems are those that have learned to get their strategy right. Planning, implementing and monitoring must be a never-ending process if it is to support growth and achieve satisfactory changes. Staff who work in the health service – doctors, nurses and other professionals – are a key resource. There must be an appropriate level of investment in education and training to help people do their jobs effectively and due recognition of excellence. The product of research development and a sense of critical evaluation of implementation must be integrated into all activities. Continual attention must be paid to attitudes and practice as well as access to data, information and intelligence with a focus on results and outcomes.

Making things happen is also important and the Nuffield Trust will promote health practice and policy that is evidence-based and takes account of citizens' views and preferences. It will foster appropriate settings for care including home and community, inpatient and outpatient, self care, shared care and partnerships and alliances and an appropriate balance of investment in health promotion, disease prevention, diagnosis, treatment, rehabilitation, primary, secondary and tertiary care. In order to deliver health care effectively and efficiently there must also be an investment in appropriate development of the workforce and managerial and professional

leadership coupled with a learning culture founded on a well-validated knowledge base and a sound programme of research and development.

Re-designing Health Services – Reducing the Zone of Delusion is a first step in a new Nuffield Trust series which aims to provide insight into policy development and better practice. In his paper, Morton Warner suggests that we require to re-design our health services to meet the needs of the twenty-first century rather than merely to re-organise them yet again. We are on the verge of a major technological change in health care made inevitable by a number of developments including international progress in genomics and the improvements in communication made possible by the World Wide Web – both of which have huge implications in terms of clinical practice, ethics and the expectations of patients.

Warner outlines actions that require to be taken without delay to point the National Health Service in a more innovative and entrepreneurial direction. He urges government to put thoughts of re-organisation aside and to open itself to serious debate across a broad front on the subject of re-design. I hope that this paper will contribute to such a debate.

John Wyn Owen
August 1997

PART 1 ORGANISE OR BE DAMNED!

The Case of the Bold Politico

In June 1993, Mrs Virginia Bottomley, then Secretary of State for Health, announced at a national meeting, where full press coverage might be expected, that "By 2002 60% of all surgery will be carried out on a day case basis, 80% will be undertaken using minimal access or key-hole techniques, and there will be a reduction of district general hospital acute beds of at least 40%".

Whilst taking care to say that these were 'recommendations' of her officials, Mrs Bottomley, as her then Sir Humphrey might have said, ventured into unwise territory when she publicly endorsed the figures as targets: she was both bold and courageous.

Suffice it to say that a Minister had gone well beyond the normal and accepted remit of wanting to re-organise things – preferably resulting in something just a little different from her predecessor's excursions – and strayed well over the line into re-design. For this she was vilified!

Organise – Dix Points; Design – Nul Points

The Oxford English Dictionary is very positive in its phrasing on both 'organising' and 'designing'.

> **Organise:** *to render organic; to co-ordinate parts or elements so as to form a systemic whole, put in working order.*
>
> **Design:** *the thing aimed at; the end in view; the final purpose.*

Quite clearly I have these in the wrong order, for how can you set out on a journey with any potential for achievement if the destination is not defined? Except when acting outside the health strategists' role and moving in a Wordsworthian way? But the strategist's rationality does not always apply to everyday life; and it is difficult to penetrate the

democratic collusion between politicians and their various publics that 'form' can precede 'function', that organisation is superior, or at least less risky than design.

Two things predicate against putting 'design' in the driving seat. First, it is politically difficult in this modern era to sell a nation a vision of the future: the economic upheavals of the last three decades have raised most people's levels of uncertainty to such heights that the devil they know is comfortable, and the mental dissonance caused by having to contemplate further change – or destabilisation – is unacceptable.

Second, whilst re-organisation implies change, most often what is proposed is incremental in nature; and though it might raise the potential for conflict it can be accommodated by organisations or professional groups which have to consider it using their existing structures and committees. Structural conflict is OK! It allows for mutual recrimination followed by collective admiration. Re-design, however, is more fundamental in what it attempts to do; and with its potential for moulding the future, challenges the existing structures, which are most often based on historical precedents. It causes frictional conflict by crossing previously well-defined boundaries, and takes both proponents and opponents of an innovative idea into new, more risky, territory.

Re-organisation when applied to the public sector is accorded a variety of positive-sounding metaphors: it is challenging, efficient and integrational, bringing about greater choice and seamlessness of care or service. This is attractive language for the politician focusing on a three year window of opportunity for change.

Re-design, whenever it is contemplated, is likened to a tidal wave, the result of which is likely to be chaos.

Organisation: The Psychic Prison

Gareth Morgan, in his imaginative language of mental constraint[1], provides an antidote to the organisationalists, political and otherwise. Drawing on Karl Popper's notion of the poverty of historicism[2], he suggests that members of organisations, and the actions they pursue, are constantly trapped by ancient memories of the organisation's real or believed history. In all probability in the modern era, with its penchant for early retirement and compulsory redundancy, real history will be in short supply, and believed history, or fantasy, will provide a comforter for many who are faced with future uncertainty.

Some major corporations are going so far as to set up corporate memory banks and are debriefing older employees before their retirement. They follow the maxim of the Japanese proverb: visit the past to know the present. But, perhaps, they will need to add their own rider: Don't let yesterday interfere too much with today.

Our fascination with organisation and re-organisation is endless. Again Morgan makes an extrapolation from the metaphor of the organisation as 'organism', characterising its concern to preserve its internal environment, whilst at one and the same time adapting to the changing externalities.

The NHS was, until 1990, very successful in maintaining its 'organism' state. It essentially survived, in some minorly modified way, the changes of 1974[3] and 1981[4] and the attendant Royal Commission[5] which reported in 1979, involving itself in extensive debates about organisational relationships with local government and the number of administrative tiers required. The 1990 reform[6] (note the language) seemed different. Was it a re-organisation of enormous proportions, and one which has created its own psychic prison, only passingly

ameliorated by Health of the Nation[7]: or was is it a phantom re-design, waiting to pounce? More of this later.

The final re-organisation that must be mentioned – in the mid-1990s, the formation of unitary local authorities and merged health authorities – has left observers perplexed. Why, in the case of the first, should they be smaller, when the latter were to be enlarged? How, in a period when joint working is seen as important, can the process be enhanced by this organisational dichotomy?

In this example, real re-design seems to be at play. There is an end in view, a final purpose, an adaptation of means to ends, but re-organisation is used to obscure these. Why? Well, it seems the organisational dichotomy serves the end of greater control by central government:

> *Health Authorities are made larger and more accountable to the Regions, which, in turn, are now staffed by civil as opposed to public servants, and accountable to central government.*
>
> *Local authorities, on the other hand, controlled by elected officials, are downsized, a useful divide and rule tactic.*

Here, only one can play – central government. The result is another form of psychic prison in which the population at large is left in solitary confinement and the key notions surrounding a civil society – equity, response to local need, participation in decision-making – may well be destroyed.

Re-organisation: The Diversion of all Diversions

The quest for the perfect organisational arrangement has an equivalence in the 15th century philosophers' search for the stone of knowledge: it is fascinating, largely irrelevant, and never, by definition, achievable. It is a diversion of enormous proportions which obscures the necessity to get on with the real job of design and re-design.

My contention is that whilst historical events, such as the purification of water, the production of cotton, and improvements in nutrition had a major impact on health, only the advent of antibiotics has had a real design impact on the NHS. Other important items like information technology, the use of lasers, and imaging, have only performed walk-on parts as re-organisation rather than re-design has characterised the NHS. Health services, or more appropriately sickness services, have been at the helm of an NHS dominated by input or supply-side activity.

Archie Cochrane's now famous 1971 autobiographical story[8] sums this up very well. "I once met a worker in a crematorium who had a very satisfied look on his face. I asked him what he liked about his job. He replied it was because so much went in and so little came out. I thought of suggesting he get a job in the NHS."

It is apposite that this recollection came from a man involved in setting up the early antibiotics randomised control trials.

What follows is an account of some of the design items that might have been, and the innovation gap that has opened up because of their often late recognition. These include: the effect of increasing globalisation of economic activity, beginning in the quite recent past, and likely to accelerate rapidly in the next few years; the potential growth in the information and other technology readily available to individuals; and the challenges brought about by the advent of the new genetics.

The supply side will be reshaped as a result of these design influences: re-organisation alone will not be a viable option. There will also be major implications for the professions as their control is challenged, and for governance, too, as we move on the vanguard of a history we do not control any more. The future is puzzling!

PART II TRANSFORMING THE REALITY: RE-ORGANISE AND BE DAMNED!

The Zone of Delusion

UK politics is very much dominated by denial of the need for rapid change, on the one hand, and clarion calls about the massive challenges for the future and the need for flexibility, on the other. The resultant forces settle, not unreasonably, around the idea of slowish, measured change. To deviate from this path is to risk the wrath of electorates, which themselves are conservative by nature.

Figure 1 portrays this as it applies to the NHS. First, in the immediate post-war period when change was regarded positively, there was the massive design effort that went into the formation of the NHS from 1942-8. Following this there was: the continuing high propensity to re-organise over the next forty-five years (with minor concessions to the effects of antibiotics on TB beds, and the need for hospital beds more generally); and an ignoring of the developing issues since the 1970s which have been demanding of re-design responses – a globalising economy and technological advances, in particular.

The result is a continuing 'zone of delusion' in countries like the UK which have planned economies. This comes about as a result of thinking that re-organisation in itself is innovative and should be pursued *ad nauseam*, whilst ignoring the bigger picture, often, it seems, for fear that the ideas it will generate will act as uncontrollable challenges for the process of governance. I shall now look at each of these re-design rechallenges in turn.

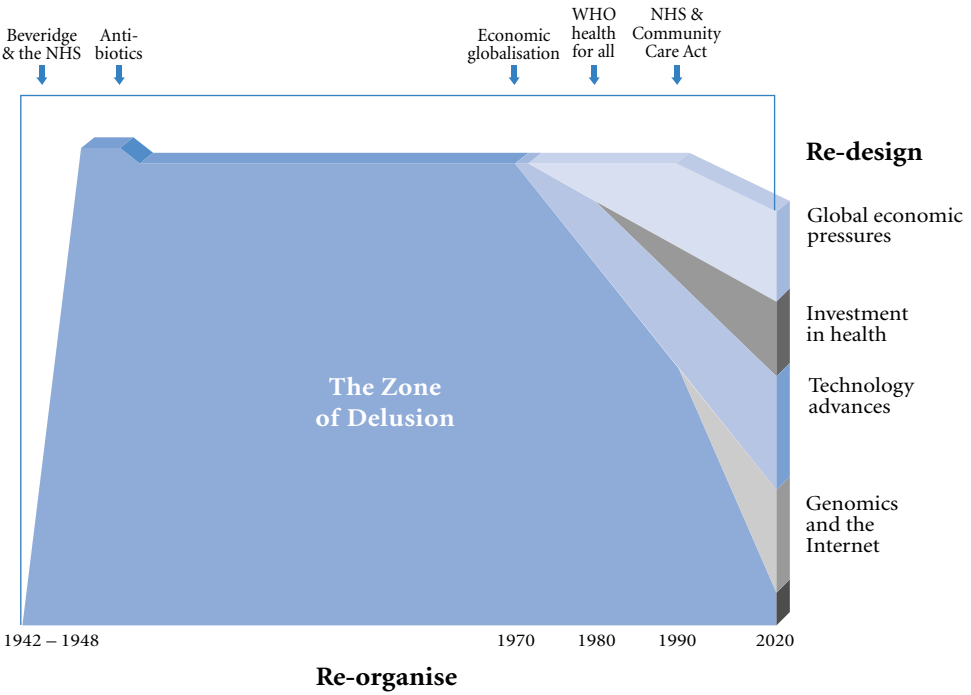
Think Global Not Local

The Big Bang for modern health care in the UK, and indeed in many parts of Europe, originated at a point on the globe around longitude 120°E and latitude 23°N. The decade was the seventies and the place, Taiwan. This tiny island, driven by its intent to survive against the

might of China, became the first of the 'tiger economies' of South-east Asia which now sit alongside Japan as major entrepreneurial and trading nations.

This event, together with the subsequent rise of South-east Asian countries in global affairs, has transformed both Western economies and the early realities of the welfare state.

FIGURE 1: The Zone of Delusion
Re-design – Dix points
Re-organise – Nul points



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Throughout the past twenty years there has been an increasing globalisation of trade and knowledge – the global village talked of in the sixties is becoming a reality. With this shift has come a sharp rise in international competition and the perception that trading blocks – the European Union, the ASEAN group, and North America from Canada to Mexico – are necessary to protect regional interests.

Governments, in the west, if they want to maintain a competitive edge globally, are committed to keeping personal and corporate taxes as low as possible in order to reduce the wage bill and price of production. Shifting the costs of social services to consumers reduces the government need for taxation revenues. The result for health and other social services has been an increase in private co-financing, widescale introduction of the distinction between purchasers and providers, and the potential for market forces to be let loose. This poses a challenge to public policy because, as is widely acknowledged, an unregulated health care market results in both inequity and inefficiency. Robert Evans, an eminent Canadian economist, has put the transaction costs of the US health care system at $120 billion – dollars paid into health insurance schemes but diverted away from patient care[9].

Health care, then, has not been immune from the shift towards a market economy which has followed from the competitive paradigm that dominates free trade. Three types of privatisation have emerged and they each have different implications: active privatisation – selling-off publicly owned health assets, such as hospitals; passive privatisation – growth in both/either private sources of finance or private provision of services that occurs as a result of market forces rather than explicit government policies; and planned/managed markets – the introduction of competition – 'marketisation' – within a clear structure of public incentives and regulation. The UK has been subject

to the last two, to date; and, in areas other than health care, active privatisation has become the norm.

The 1990 NHS Reforms – WD40 for the system.

So, to a consideration of the 1990 NHS and Community Care Act. Many regarded it as yet another political foray by a Conservative government committed ideologically to privatisation and the competition that results from it. Some construed it as another re-organisation in the continuing cycle that occurs about every decade. Only a very small minority would have viewed it as preparing the way for changes in the basic designs of health and social care provision, and that was because it lacked obvious strategic objectives, and was 'means' rather than 'ends' oriented – or if there were 'ends' they were seen to be so ideological as not to be laudable. The language of 'procurers' (later more wisely to be called 'purchasers'), and providers, contracting, and commissioning, sat alongside concepts such as the 'purchaser/provider split', 'seamless care' and 'money following the patient', as part of the bundle of management activities that many summarised, incorrectly, as privatisation. Unfortunately, little recognition was given in those early days to the new emphasis on assessment of needs and meeting the expectations of consumers (this latter to be embodied through the Patient's Charter in 1993).

This change is summarised in the first two diagrams in Figure 2 with, in the second instance, need and demand being given emphasis as the driver of the supply side: rather than, as in the first, clashing potentially with a supply-side dominated approach.

PART II TRANSFORMING THE REALITY:
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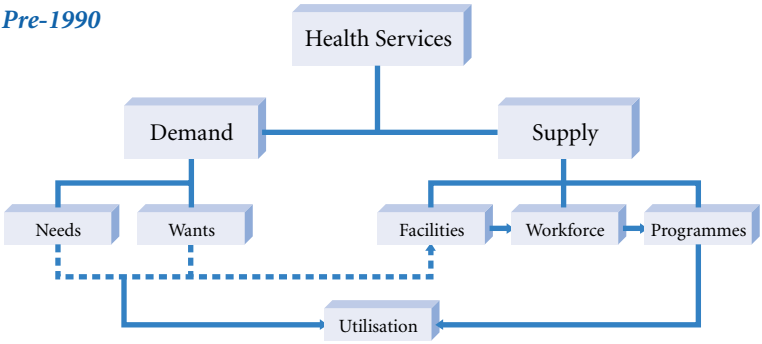
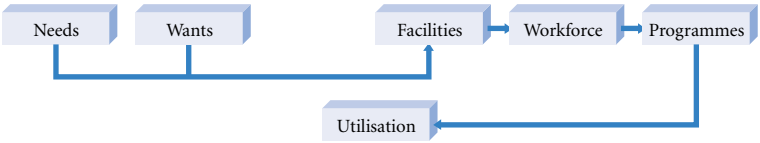
FIGURE 2: Towards a re-designed health system – England and Wales

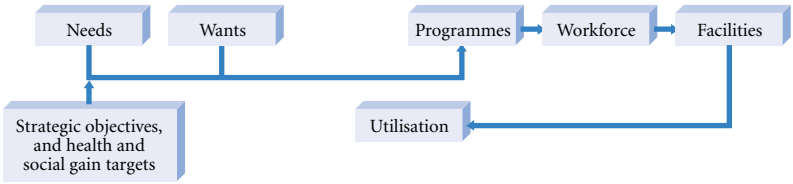
Pre-1990



NHS & Community Care Act, 1990



1989 Stategic Intent and Direction (Wales)
1991 Health of the Nation (England)



The third diagram, represents a real change. The re-design:

- begins with an articulation of strategic destinations which it is desired to achieve, and the setting of targets for health and social gain, and for delivery performance;
- views needs (derived from medical and social epidemiological studies) and wants (consumer based) for services in concert, and strikes a balance between them when considering resource allocation;
- moves the supply-side moves towards consideration of programmes, and the manpower necessary to run them first, with the facilities question being a subsidiary one: this is the reverse of what happens most often now when manpower and programmes orbit around facilities.

The NHS Reforms have operated at a phantom level and acted as the lubricant for initial re-design; and The Health of the Nation shifted the emphasis to health outcomes for the population, a more acceptable public face to what had become something of a bureaucratic nightmare.

Investing for a Health Dividend

In Wales, by contrast, a fundamental re-design had been under way since 1989, with health gain being given as the reason for investing in health services – the dividend. This was to influence thinking in the UK (through Health of the Nation), and many other countries.

In July, 1990, the Secretary of State, David Hunt endorsed a strategic intent for the NHS in Wales[10] which owed its existence to a

willingness to re-design by stating clearly the 'end' which the £1.2 billion investment was to achieve:

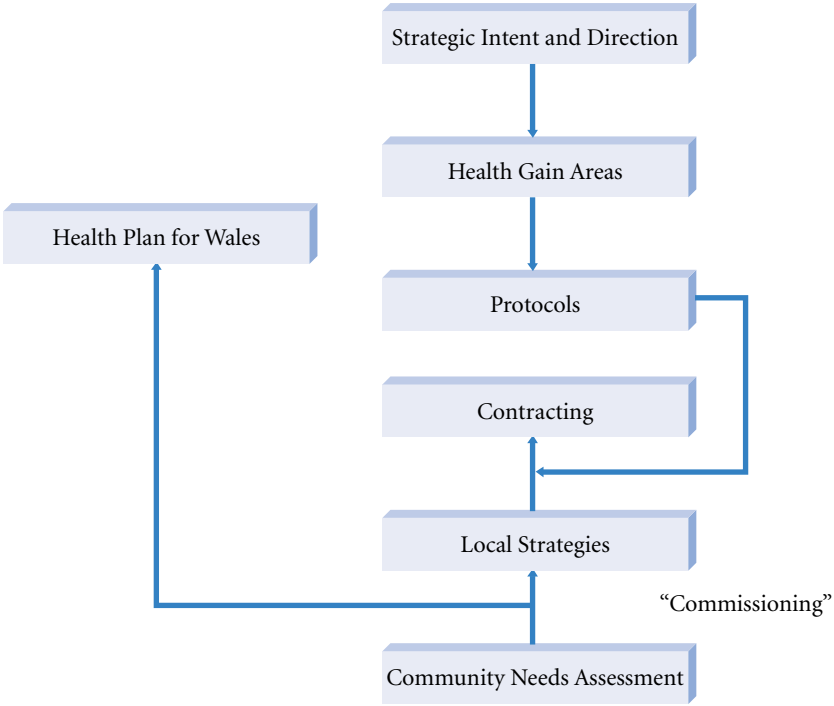
Working with others, the NHS aims
to take the people of Wales into the 21st century
with a level of health on course
to compare with the best in Europe

We must move, he said in a press release, "from the present National Illness Service to a fully comprehensive National Health Service". He stated that from now on, the NHS in Wales will need to concentrate its effort on achieving health gain (adding years to life and quality of life to years), developing a genuinely people centred service (valuing people as individuals and managing its services to this end), and achieving the best health return from the resources invested in it – in essence getting more and better out of what we have.

Health gain became an important re-design currency which could be used by everyone.

Figure 3 indicates how health gain was at the heart of the Welsh strategic approach, guiding both development of protocols – to amass the evidence base – and the local strategies, which focused on community needs. Contracting was relegated to its proper place as an action resulting from other health gain-based considerations.

FIGURE 3: Wales: The Overall Re-design Framework



The process of re-design was interrupted in 1993 by the arrival of a new Secretary of State with a personal agenda to reduce bureaucracy in the NHS and with an aggressive view against central strategic activities and planning. The concept of health gain was also anathema, being considered an 'accounting' term. His concern was more for increasing clinical activities than improving outcome. Re-organisation once again became the diversion of all diversions. How, and if, the re-design agenda will be reactivated in full awaits to be seen. Will the zone of delusion be increased or diminished?

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The Tidal Wave of Technology

By way of contrast, comes the onward march of new technologies. Here, governments are not in control, even though, in the case of the UK, most health care is publicly financed. This is the realm of the entrepreneurial companies who appeal to both doctors and the public to adopt and demand the latest cure or procedure. The slow drip of publicity though ever-increasing media fascination with health subjects puts a constant pressure on NHS finances.

But new technology must be included as part of the re-design picture, for if it is not the level of delusion will be increased, a delusion that something can be done to cure our ills but that, simplistically, cost is the only limiting factor. It is not a matter of cost but of choice; and politics, that science of prioritising, finds the choice difficult in the face of competing pressures.

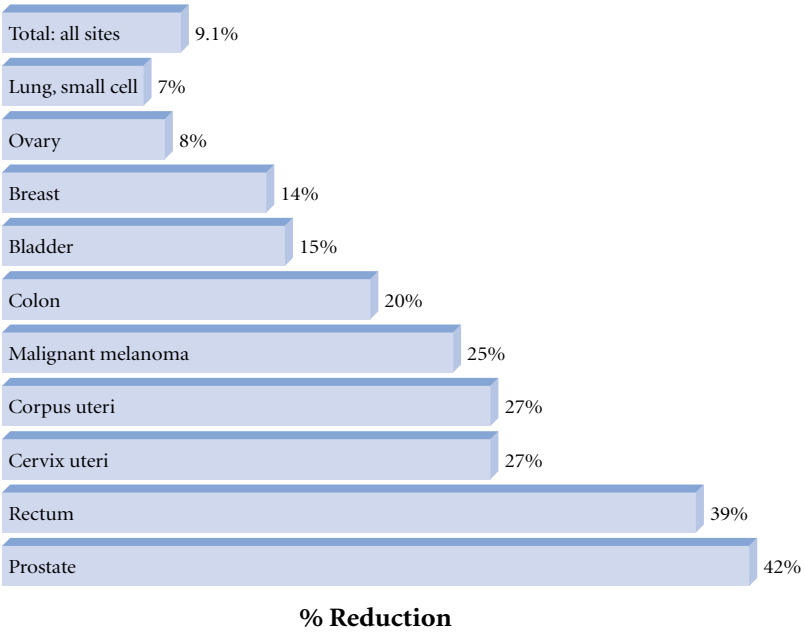
The dilemma of the fathers of the NHS, who anticipated a reduction in demand after a few years, can be illustrated thus: A man goes into a pet shop and spies a baby gorilla that takes his fancy. "What do you feed it?" he asks the pet shop owner. The reply "For the first six months bread and milk..., and after that all it wants."

The demands of the NHS are insatiable! And yet the public and clinical practitioners press for more technological innovations to be introduced, and they have a case.

A comprehensive report published in the mid-eighties by the National Cancer Institute in the US[11] identified the measures needed to reduce cancer mortality in that country. In the most ambitious scenario, a 50% reduction in overall mortality could be achieved by the year 2000, half due to improvements in treatment.

Estimates for this are shown in Figure 4. If applied to this country 5,000 deaths would be avoided in England, and appropriately 300 in Wales. (But let it not be forgotten that nearly 2,000 deaths in Wales alone each year are attributable to smoking.)

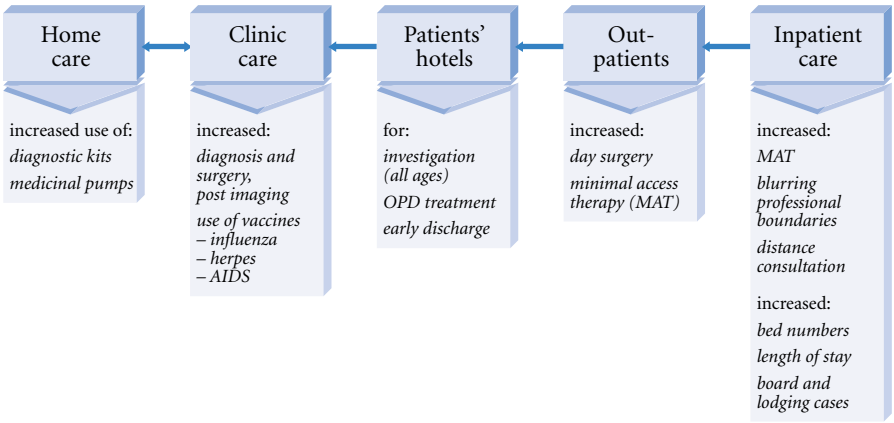
FIGURE 4: Possible reductions in cancer mortality due to application of state of the art treatment, USA



Source: Based on Greenwald P, Sondik EJ eds *Cancer Control Objectives for the Nation: 1995-2000.* NCI Monograph No 2 1986.

Technology change and re-design are clearly linked, and this is displayed in Figure 5. The general pattern, together with some limited examples shows some of the major substitutions envisaged and the shift of activities closer to people's homes. This coincides with political thinking and a general urge to reduce costs. High technology in the home may or may not achieve this.

FIGURE 5: Examples of technology re-design and its potential impact



At the inpatient or outpatient end of the spectrum several key trends emerge:

- advances in the use of endoscopy, in combination with lasers, will increase considerably the proportion of surgical work undertaken by minimal access therapy (MAT);

- the average length of stay for procedures will reduce;
- the proportion of surgical work carried out on a day-care basis will rise very significantly by the year 2000, and more by 2020 – it was 15% in 1991 and is about 60% now;
- the boundaries between medicine, surgery and radiology will become increasingly blurred;
- patients' hotels will emerge as half-way houses between acute district general hospitals and primary care. They will accept individuals for early discharge from acute hospitals who still need a supervised environment, and take in patients referred by GPs for complex investigative work where there is no need to be resident in a hospital bed;
- home and clinic-based technologies will change and improve.

Achievement of health gain in the UK will not be possible if new technologies are viewed just as additional costs to already over-burdened health services. They must be chosen on the basis that they can assist in the necessary shift of resources across levels of care and can lead to re-thinking about the design of care itself, and to the release of resources from acute district general hospitals.

The last additions to represent the menu of re-design are the newly emerging, but all-prevailing, technologies – genomics, and communication through the Internet. Both place control with the individual. Both have the potential to cut out the middle man. They will contribute, in a major way, towards the continuance of the zone of delusion if health services do not quickly come to grips with them.

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Saying Hello to the Future

We are on the verge of a major technological change in health care.

We have known for some time that many diseases are the result of complex interactions between genes, behaviour and environment, but the precise inter-relationship has been unclear. In the next few years, scientists will strip away much of this uncertainty, and many areas of clinical practice could change radically as a result.

This could open up exciting new possibilities for:

earlier and more accurate prediction or diagnosis of many major diseases, and

new opportunities for prevention and treatment.

The science underlying this is known as genomics, and is related directly to the major international effort to map the genetic blueprint of human life – The Human Genome Project – compared by some with the scale of effort needed to get the first man on the moon.

This is a far cry from the traditional genetics related to constitutional mutations which are carried in the whole body and may be passed on in total or in part to offspring. Now, we are dealing with somatic mutations which are consequent on changes in particular organs of the body and are not passed on through the germ line. The numbers involved where genomics will play a part in somatic mutations is many times that of the constitutional type (see Table 1).

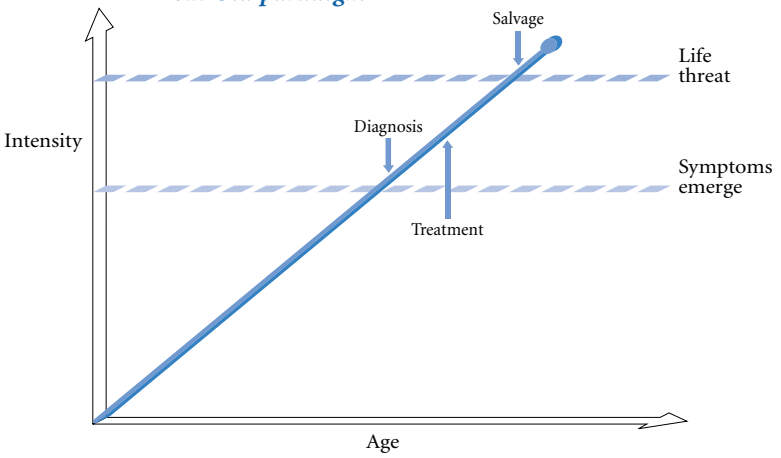
TABLE 1: Prevalence of 'Genetic' Illnesses in the United Kingdom

Single gene disorders		**Polygenic disorders**	
Huntington's disease	2,500	Alzheimer's Disease	400,000
Muscular Dystrophy	3,000	Diabetes	1,000,000
Cystic Fibrosis	7,000	Asthma	3,000,000
		Hypertension	5,000,000

In developed countries, in the next 15 years many assumptions held in the 1980s about the provision of diagnostic, treatment and rehabilitation services will need to change. Figure 6 illustrates one way in which current approaches to health care management of chronic diseases may change radically.

FIGURE 6: Old and new paradigms of chronic disease management

6a: Old paradigm



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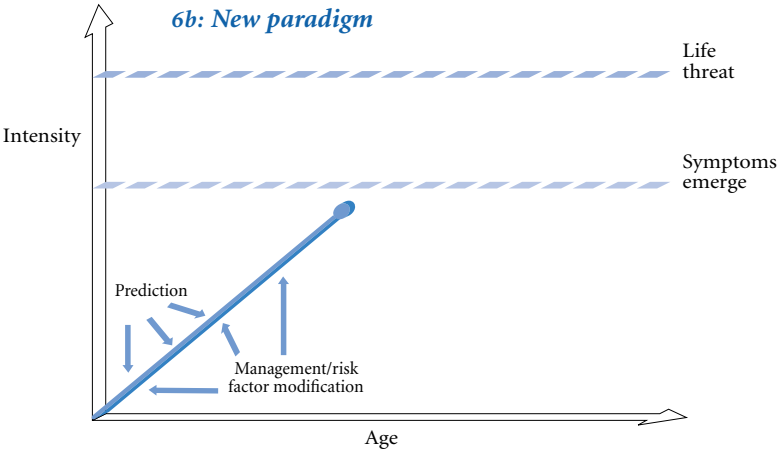


Source: Goldsmith J, *The Reshaping of Health Care, Part 1.* Health Care Forum Journal; May/June: 21, 1992.

Here, the old paradigm represents intervention for chronic disease management only once symptoms have emerged. In the future, a 'predict and manage' approach, which is triggered by a genetic screen and followed by further testing and regulation prior to the symptom stage, is likely gradually to become the dominant paradigm.

If we are in the business of guessing at future developments, we know that genomics might dramatically increase the degree of certainty with which clinicians predict a particular disease, or it might increase the prospects of a cure. It might achieve both, or neither. It seems sensible to assume that the scale and pace of change brought about by genomics in different clinical disciplines will depend very much on where they start from in the table of uncertainty. (See table 2)

TABLE 2: Varying possibilities of prediction, prevention and cure for genetically based diseases

Degree of Certainty about Prediction	Prospect of Prevention/Cure	Example
Very high	No	Huntingdon's disease
Very high	Yes	Familial cancers
Variable probabilities	Yes	Some cardiovascular diseases and mental illness

Source: Welsh Health Planning Forum. Genomics: Impact of the New Genetics on the NHS. The Cardiff Debate. June 1995.

For patients, new notions about the causes of disease, and the implications of testing for oneself and one's family, may put traditional concepts of health and illness under strain. Anxiety levels could easily be increased by widespread adoption of genetic tests.

For the NHS the prospect is that the current closed system of care will be burst open. The tests are technically quite simple and can be done very easily. That, allied with the fact that testing can be carried out anywhere on blood samples that are provided – the USA, France, the Cayman Islands etc – means patients will get information from beyond the NHS. They will then be able to come to NHS clinicians with a diagnosis and say: "What are you going to do about it, Doc?"

Re-design will come from without!

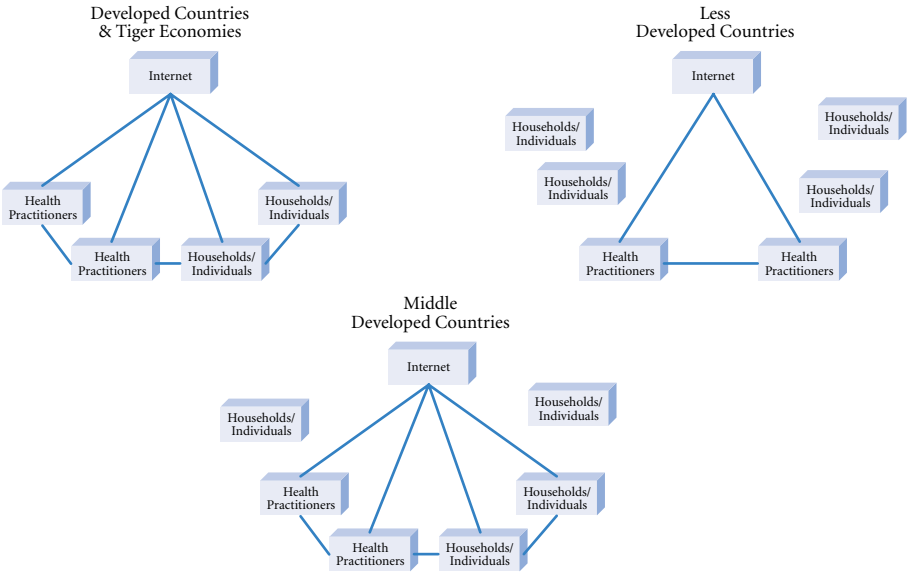
PART II TRANSFORMING THE REALITY:
RE-ORGANISE AND BE DAMNED!

The Global Village Update

Writing in the sixties, Marshall McCluhan[12] declared, for the future, the ascendancy of the 'medium' over the 'message'. Alongside, he forecast a world-wide communications system which would create a global village.

Now, in its infancy, the World Wide Web is the concrete representation of McCluhan's dream. Figure 7 summarises the stage of implementation that might be expected by around 2020. In countries at all points of development practitioners will have access to global information about diagnostics, treatment and effectiveness of interventions, as well as intelligence about disease outbreaks. Links with individuals and households will vary.

FIGURE 7: Internet Connections, 2020



However, for developed countries like the UK, both clinicians and individuals are likely to be connected. It is suggested by some that improvements will be the result, but there is also talk of a downside, in that demand may be generated unnecessarily because of increased knowledge. Fully-informed consumerism with access to medical/health technology assessment should perhaps be the aim.

Beyond this, though, the level of interactivity will likely be increased by the development of artificial intelligence systems which can assist self-diagnosis and authorise prescriptions and treatments without involving the middle man, principally the general practitioner.

The symbolic commonality between the two items – genomics and interactive global communication systems – is their ability to bring knowledge to individuals about their own personal being, their position *vis-à-vis* others, and a capacity, indeed a psychological imperative, to act to restore themselves to a state they perceive as health. Indeed, with the availability of information will come a responsibility to act, thus fulfilling the never-included part of the WHO definition of health, as originally proposed by Henry Sigerist in 1941, and recently reprinted for good reason.

"Health is, therefore, not simply the absence of disease: it is something positive, a joyful attitude toward life, and a cheerful acceptance of the responsibilities that life puts upon the individual." [13]

Two linked things result from all this. First, individuals will begin to demand a customised epidemiological statement, or profile, as part of a personal health plan. And, second, services will need to be re-designed as a series of extended managed care activities, and based on individual needs. We are, of course, already beginning to see this move in respect of assessment for continuing care.

PART III RINGING THE CHANGES

Now to look at the implications of the Zone of Delusion. What must the NHS do if it is to survive the mounting external pressures? How will the professions need to adapt to the urgencies of re-design? Can the role of governance change to act more positively in our fragmenting health care world?

I am going to put some limited, but key, suggestions.

The NHS as Entrepreneur

Whilst travelling recently to Amsterdam I read the airline magazine, as one does only at 25,000 feet at a point of extreme boredom. In an article about the development of a fledgling biotech industry in Holland, the author said the commercial environment in that country was difficult for pioneers because, by nature, the Dutch were traders, not entrepreneurs.

The same may be true for the UK – remember it was Adam Smith who described us as a nation of shopkeepers. Certainly, the NHS has been resistant to innovation; and the recent reforms have taken it fully into the trading model.

Several actions would seem to be required urgently if the NHS is to be more innovative and entrepreneurial.

- At the national level there is a need for an NHS Design Centre, the equivalent of its namesake for everyday living. Utility with flair! should be the character of its charter.
- A close linkage should be established between the UK Technology Foresight Programme and the NHS so that applicability of its findings are applied throughout the country.

- Greater emphasis should be placed on joint ventures and co-operative relationships with industry: the NHS potentially is the biggest laboratory in the world.
- There must be an equal emphasis on Development in the R&D world – currently it falls a very poor second.
- Personal initiatives of an innovative nature should be encouraged – if brought together in some systematic way they will form a vital part of the emerging evidence base.

Earlier I described the 1990 NHS and Community Care Act as a lubricant in the re-design world. The very plurality of service provision that it encourages, together with the emphasis on localised action, provides a climate for innovation. But the NHS culture not unsurprisingly remains stuck in re-organisation mode. The opportunities for re-design are considerable: indeed, survival of the NHS without it seems unlikely.

The Professions : Friend or Enemy in an Open Society?

In turning to take a look at the professions, and their response to re-design, it may seem curious to begin raising questions about their status as friends or enemies. But this is necessary if an assessment is to be made of their ability to contribute to a reduction in the size of the Zone of Delusion.

To refer to the 1990 Act again. It has forced a level of transparency previously unknown in health services in the UK. Without its presence it is unlikely that many subsequent events would have happened either at all, or so fast. For example:

- purchasers and providers would have continued as one

organisational group;

- systematic judgements would not be required for management purposes on the efficacy of treatments, nor would such overt decisions have to be made on priority-setting and purchasing;
- professional activities would not be under so much scrutiny – from waiting lists to the use of resources.

But these are all side-shows to what should be the main event – re-design. On the one hand, professions have great value in their role of sheltering the public against unacceptable practice. On the other, self-protectionism through union and craft and guild activities can retard progress of a developmental nature.

FIGURE 8: The Nursing Constant

The work of the nurse, whatever the setting, draws upon a tradition of caring, based around both skills and values, and includes:

- *a co-ordinating function*
- *a teaching function for carers, patients and professionals*
- *developing and maintaining programmes of care*
- *technical expertise, exercised personally or through others*
- *concern for the ill, but also for those currently well*
- *a special responsibility for the frail and vulnerable*

The nursing profession is, perhaps, ahead of the pack following its initiation of the Heathrow Debate on Nursing in the Next Century[14]; and most importantly they have identified a 'Constant' (See Figure 8) which, whilst guiding the continuing presence of the profession, does not interfere with the potential for re-design.

For medicine, nursing and the other professions involved in health service delivery, a certain urgency exists for revisions and accelerations of thinking. They should:

- accept that governments, of all political colours will, with the reality of the global economy, have to exercise more control over professional activities which have cost implications – this applies way beyond health care to lawyers, teachers and others;
- develop strong statements of 'constancy' – what must hold, no matter what re-design;
- articulate the health and social gain investment model;
- support, and become further engaged in, technology impact assessment, such as the Royal College of Surgeons' report on day surgery;
- ensure curriculum design fits students for the future not the present – genomics as a broad band topic should be central, and information treated as a key resource.

The professions' leaders are key to a reduction of the Zone of Delusion. Their lead will help reduce the public perception that all NHS change is bad, and the central aim of change is the saving of money.

Sharing responsibility in a civil society

Walter Bagehot said "one of the greatest pains to human nature is the pain of new idea". But new ideas are rapidly ceasing to be the preserve of the few. Television changed all that; home satellite dishes provide a menu from 200 or more stations; and the Internet is rattling at the windows like a warm wind in winter. We are well beyond the days

when GPs learned of medical innovations through their patients' reading of Sydney's Kidney in the Readers Digest!

So, on one hand new ideas, and the potential pain of them – and this applies to all – professionals and the public alike. On the other, the potential for sharing responsibility for the exploration, development and implementation of those ideas – joint decision-making about how to advance the rights to health – an essential action in a civil society.

Some transatlantic commentators are saying there is a convergence between the UK and the US – the interest of both populations is more in the functioning of public services than in political ideology. This is a good sign for the re-design lobbyist as 'form' would be relegated to its proper secondary position following on from function, and the excesses of ideology trimmed.

As the availability of public finances reduces – a certain feature for the foreseeable future – the professions and government will prosper by promoting public debate on important re-design issues – disinvesting from hospital care, the ethics of the new genetics, workforce substitution for example – and in any case the public will demand it. The citizen's juries of today will be replaced with community juries as individuals promote local democracy through the net systems of tomorrow. Individuals will be encouraged by Ralph Nader's dictum "If you think you're too small to be effective, try going to bed with a mosquito".

Again, some action points emerge, but this time of a more generic nature:

- Professionals need to engage more actively with all communities of interest, and the general public, to share

their burdens and propose new designs.

- Governments must put thoughts of re-organisation to one side and be open to serious debate across a broad front on the subject of re-design.
- Governments, the professions and health and local authorities should use the media as a positive bridge to encourage informed discussion.

A civil society is one which is open, and where caring for its members takes high priority. Governments must free up the systems to allow both to happen.

Governance in a fragmenting world

I have purposely left governance to last because it should be underpinning the re-design debate, not controlling it. As the process of globalisation continues, and regions take on many of the roles previously performed centrally, national governments are likely to be caught in awkward middle ground, a no man's land. But they will have an important series of roles in an increasingly fragmenting world.

In respect of health services, the principle of equity must take poll position, ensuring just provision according to need. It is a key concept of re-design currency. Social inclusion is another expression that must figure in the government philosophical lexicon. Many people become ill, physically or mentally, as a result of being excluded – for example the unemployed, the elderly, single parents, the disabled and the mentally ill. It is the job of national governments to see that health service provision and access are not patchy, to promote certainty for individuals and communities. Wellness is the absence of uncertainty.

The overall role of governance, then, must be to develop cohesiveness and solidarity through:

- articulating national frameworks for achievement of health and social gain, to include all NHS and LA services;
- monitoring the health of the total population;
- regulation to ensure a uniformly high quality service;
- benchmarking, particularly of outputs and outcomes, allowing cross country comparisons;
- co-ordinating R&D and the dissemination of results, and overseeing implementation to complete the cycle;
- leading, not following, on technology impact assessment – being, for example, supportive from the outset of the new National Advisory Committee on Genetics.

Re-design will be possible to the fullest extent when supported and monitored in this way.

Now to my penultimate point. Is there some way to manage at grass roots level the process of change – the re-design – that is now necessary? Well, maybe; and the approach I propose now is to use a concept referred to as 'substitution'. This is the 'what to do on Monday morning' stuff!

PART IV MANAGING RE-DESIGN THROUGH SUBSTITUTION

A Few Words on Substitution

'Substitution' is an expression first used in respect of health care by the Netherlands in the Dekker Report[15], in 1987, when it was recognised as one of the most important policy instruments for health care reform (though economists have used it for many years). And it should be noted that 'substitution' is not merely the replacement of secondary care by primary care (as suggested by some authors subsequently), but occurs between and within care sectors.

So how does 'Substitution' work?

Take a clinical example – the original anti-tuberculosis chemotherapy. It helped eliminate the need for sanitaria and hospital care with profound consequences in resource terms. The new options, in this case technological innovations, changed the actors, the methods, the timing, the location and even the reasons for care. That is the power of substitution – as a concept it can help re-design almost everything. Another example would involve the shift to H^2 antagonists from surgery for peptic ulcers; and now further substitution by H-pylori testing and eradication.

This grouping and regrouping of resource packets is the process of substitution in health care.

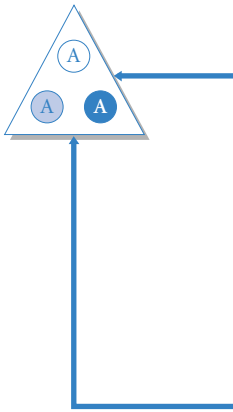
'Substitution' can be defined then as:

> *'the continual regrouping of resources across and within care settings, to exploit the best and least costly solutions in the face of changing needs and demands'.*

A substitution taxonomy for re-design

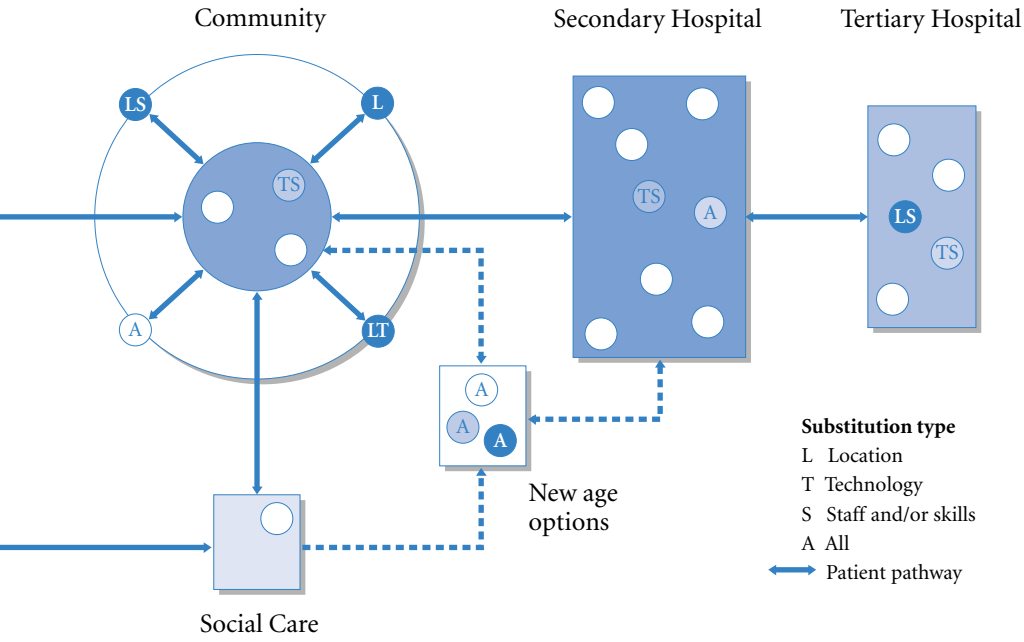
A substitution taxonomy is proposed to assist in re-design, and ensure resources are used most effectively. It subsumes a multitude of shifts in treatments, procedures and organisational patterns. Figure 9 illustrates the various types of substitutions which can occur. It differentiates between three kinds: moving the location at which care is given; the introduction of new technologies; and changing the mix of staff and skills. There is, of course, a fourth substitution type which involves a combination of all of these.

Home



The concept of substitution represents a powerful tool to moving along the pathway towards 21st century re-design. It will demand the development of an evidence base for managing change that will operate alongside the counterpart being developed for clinical practice. *En route*, however, cognisance must be taken of the various pressures for change on both the demand and supply sides; and at the outset the NHS and Community Care reforms must be recognised for the way they will lubricate changes in the delivery system.

FIGURE 9: Health and Social Care Substitution – Evidence-based Management



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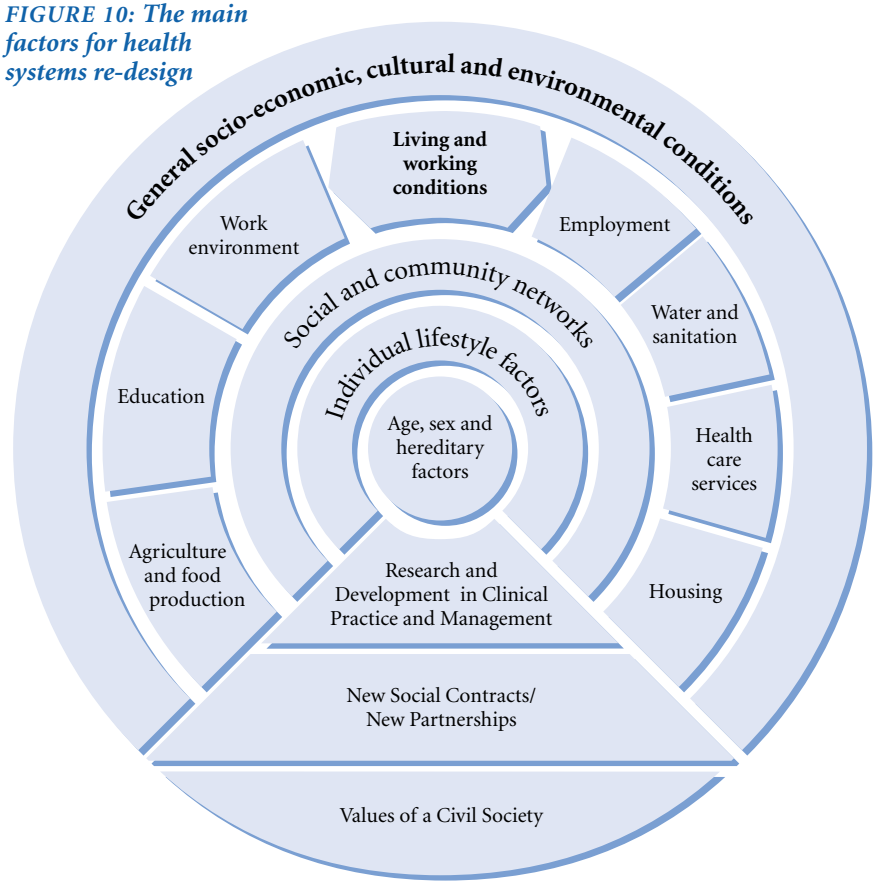
PART V THE WAY AHEAD – TOWARDS A 21ST CENTURY PARADIGM FOR HEALTH SERVICES RE-DESIGN

Goren Dahlgren has summarised the main factors which, in combination, determine the level of health of individuals and communities[16].

Figure 10 shows an extension of his model to include three other important elements which will enable re-design to proceed. These involve:

- The ***values*** that must be subscribed to on a UK basis if a civil society is to exist which confers equal rights to health on its members.
- The ***new social contract*** between individuals and their communities, and involving new alliances between providers of care and producers of technology (public and private), together with health policy-makers working in economic and social development and health, and the purveyors and knowledge and training – schools, colleges and universities.
- The need for health systems ***research and development*** to construct a well-articulated evidence-base relating to both the elements and management of change and to clinical practice.

FIGURE 10: The main factors for health systems re-design



With these additions, a new paradigm emerges within which the contribution of health services re-design to the production of health is put into context. No longer re-organisation without change, but change without re-organisation. Then the Zone of Delusion can begin to fade away.

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Although much has changed in health care and in society in general since the inception of the British National Health Service in 1948, there has been no actual *re-design* of our health services to meet these changes. In contrast, the fascination with organisation and re-organisation has been endless. There has been a democratic collusion between politicians and their various publics that 'form' can precede 'function', that re-organisation is superior to, or at least less risky than, re-design.

Re-organisation is the diversion of all diversions and has created a Zone of Delusion that has allowed the major forces of change that are currently impacting on health services to be ignored.

Global economic pressures, moves towards forward thinking about *investment* in health, and technological advances, including genomics and the Internet, are the re-design items Morton Warner, Professor of Health Strategy and Policy at the University of Glamorgan, examines in this short book. To continue to ignore them will be to extend the Zone of Delusion to the point where the National Health Service itself will be in danger.

Some key suggestions are made to help develop a new agenda: for the National Health Service itself; for the professions whose leaders are central to the reduction of the Zone of Delusion; and through new forms of governance which, in a rapidly changing world, are needed urgently to help construct a civic society.