The Nuffield Trust

The Maureen Dixon Essay Series on Health Service Organisation

Evidence-based Organisation Design in Health Care:

The Contribution of the Health Services Organisation Research Unit at Brunel University

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He was a Research Fellow in the Health Services Organisation Research Unit at Brunel University between 1974 and 1977.

DEDICATION

Dedicated to the memory of ***Dr. Maureen Dixon*** *(1941-1997), a member of the Health Services Organisation Research Unit at Brunel University between 1968 and 1976, whose intellectual rigour, integrity, enthusiasm and commitment to the National Health Service, contributed so much to the work of the Unit and to the development of the organisation of health services both in the United Kingdom and overseas..*

The tool for handling complexity is ORGANISATION. But our concepts of organisation belong to the much less complex old world not to the much more complex today's world: still less are they adequate to deal with the next epoch of complexification in a world of explosive change.

Stafford Beer

Go to the common people and learn from them: then synthesise their experience into principles and theories: then return to the practical people and call upon them to put these principles and methods into practice so as to solve their problems and achieve freedom and happiness.

Mao Tse Tung

Creativity and innovation, like freedom and liberty, depend not upon the soft pedalling of organisation, but upon the development of institutions with the kind of constraint and opportunities that can enable us to live and work together harmoniously, effectively and creatively.

Elliott Jaques

Unless organisation theories can be developed as practical tools to be used in the design and adaptation of organisations, they are little more than untestable generalisations.

Maureen Dixon

CONTENTS

Foreword

Maureen Dixon played a major part in developing a systematic approach to organisation design and there continue to be merits in her rigorous approach. The Maureen Dixon Essay Series has been established in order to place her contribution in context and the essays are intended to contribute to informing the debate about the organisation and design of work, whilst at the same time stressing the importance of values in health care organisation and management. The Trust is grateful to Andrew Wall, Series Editor and author of the first paper in this series, who conceived the idea for this series of papers.

The next paper, to be published later in the year, is from Annabelle Mark of Middlesex University. She will examine emotion in health care organisations endeavouring to give legitimacy to feelings that are often considered inappropriate.

Further papers are being discussed and the Series Editor welcomes more ideas from anyone involved in health care or in associated academic study, who might wish to prepare a monograph on some aspect of the organisation of health care.

Since its inception the Nuffield Trust has identified individuals and subjects which impact on health and health care policy in the United Kingdom. The contemporary way of maintaining the Trust's tradition of looking forward and for those coping with contemporary operational imperatives and to help those coping with today's contemporary operational imperatives is its Policy Futures project'. It is hopefully a way of broadening the horizons, covering the ground and looking to the medium and long term. As part of the work one of the ten technical papers examining the future environments for UK health with a time horizon of 2015 is on organisation and management.

Ewan Ferlie in his paper argues that health care organisations in the UK have from 1948 to at least the early 1990s been characterised by a stable organisational form, large scale public sector professionalised bureaucracy. For fundamental change to occur these basic parameters would have to shift. There is some early but as yet inconclusive evidence that such a change is happening. There are five key parameters where significant change is possible.

- A move away from the traditional pattern of professional domination to a more managed or externally regulated system;
- A move away from the public sector ethos to more private sector style organisations;
- A shift from traditional public sector values towards entrepreneurial and financially driven organisations
- More explicit public sector rationing and consequent financial partnerships with the private sector;
- A move away from the large bureaucracies towards smaller, more flexible, units and the consequence reconfiguration with more emphasis on primary care settings.

One thing is certain. A sound appreciation of where we have come from is important. David Hands' paper, *Evidence-Based Organisation Design in Health: The Contribution of the Health Services Organisation Research Unit at Brunel University,* is just such an appropriate tribute to Maureen Dixon.

1. Dargie, C. *Policy Futures for UK Health 2000 Report.* The Nuffield Trust. 2000.

2. Ferlie, E. *Policy Futures for UK Health 1999 Technical Series No. 7. Organisation and Management. Archetype change in the organisation and management of health care?* The Nuffield Trust. 1999.

John Wyn Owen, CB
London: April 2000

Evidence-based Organisation Design in Health Care:
The contribution of the Health Services Organisation Research Unit at Brunel University

Introduction

Following the election of a Labour government in May 1997, the focus of management attention in the National Health Service (NHS) has moved from the competitiveness of the internal market to cooperation and the promotion of integrated health care. Quality and clinical effectiveness are intended to be at the heart of *The New NHS,* which is currently being developed following the publication of White and Green Papers in 1997 and early 1998.[1 2 3 4] Health Authorities, primary care partnerships and NHS Trusts are expected to embrace the concept of *clinical governance* to ensure that *"quality is at the core, both of their responsibilities as organisations and of each of their staff as individual professionals".* [5]

The new NHS intends to encourage clinical quality and effectiveness by identifying and implementing the best of evidence-based clinical practice. This implies that treatment and care will be based on the best available evidence of what can be demonstrated to work best in terms of improving the health of both individuals and the community at large. This laudable aim is being supported by investment in a national Centre for Clinical Excellence, a Commission for Health Improvement, effectiveness orientated performance management and improved clinical governance.

The new emphasis on effectiveness has been widely welcomed by NHS professionals of all disciplines. It reflects more appropriately the fundamental purpose of the Service. Outcome orientated measures of effectiveness are more relevant in assessing the performance of the NHS than measures of mere efficiency. However, some commentators have observed that the emphasis on the application of evidence-based clinical practice, whilst welcome, needs to be matched by equivalent attention to evidence-based policy making and management practice.[6 7] Whilst too much clinical practice may still be unsupported by scientific evidence, experience shows that the organisation and management of the NHS are even more likely to be influenced by unsubstantiated opinion and political prejudice.

Clinical and management practice are inextricably intertwined: an efficacious clinical intervention can be rendered ineffective by poor organisation which either limits access to treatment or fails to ensure that it is available to the appropriate people in the appropriate manner from professionals with the appropriate skills at the appropriate place and time.

Carefully considered, evidence-based, health service policy-making, management and organisation are therefore necessary, but not sufficient, conditions for the practice of effective medicine. Government policy, organisational arrangements and management practice can all have both direct and indirect influence on population health and clinical practice, and can therefore impact on the success or otherwise of clinical interventions and outcomes for patients and communities. Whilst organisation and management cannot be a substitute for clinical skill or experience, appropriate, evidence-based organisation and management provide the essential infrastructure and context for effective clinical practice. Poor or inappropriate organisation or management will make the clinical contribution less effective.

If good health service policy-making, management and organisation is necessary to optimum clinical practice, it follows that the promotion of improved effectiveness in the NHS, and any health care system, cannot be based only on the investigation and promulgation of evidence-based medicine. Attention therefore needs to be given to the systematic gathering and promulgation of evidence-based concepts and models of health service policy-making, organisation and management at all levels of the NHS. This applies as much to national policy-making as to local clinical orgamsation and the detailed design of care pathways for specific clinical conditions. However, although there has been considerable research on the organisation and management of health care, the available evidence about organisational and management effectiveness remains at least as fragmented as the evidence about best clinical practice.

One of the most sustained contributions to the gathering, testing and implementation of good practice in health service organisation was made by the Health Services Organisation Research Unit at Brunel University (HSORU) between 1968 and the late 1980s. This essay assesses the contribution of that Unit, particularly to the first major reorganisation of the NHS in 1974. It also considers the relevance of the concepts derived from that research to the continuing debate about health services organisation. It is therefore intended as a modest contribution to the growing debate about the way in which evidence-based policy-making and management might be more systematically developed and applied within the NHS.

The 1974 Reorganisation of the National Health Service

Unlike later major changes in the NHS, the 1974 reorganisation was a long time coming. The original organisational structure of the Service, which was established in 1948, was a political compromise designed to reconcile the interests of the hospitals, local government and the independent contractor position of General Medical Practitioners (GPs). Between 1948 and 1974 the Service was therefore structured in three distinct parts.

There had been early ambitions to create a single integrated structure but the majority recommendations of the first major review of the Service, by the Guillebaud Committee [8]

in 1956, had not supported radical structural change. The momentum for restructuring did not gather pace until publication of the influential Porritt Committee report in 1962 [9] and the first attempts, in 1962 and 1963, to develop a national hospital building programme and associated plans for related community-based services. [10].

In the 1960s, in response to the gathering momentum of professional opinion, the options for a unified structure began more actively to be explored. Governments of different political complexions published a series of consultative documents [11] [12] [13] which all promised different kinds of organisational integration. The various options had significantly different implications for the role of central and local government, for GPs and the national, local and regional organisation of hospital services. Eventually, following a Conservative government White Paper in 1972 [14] and legislation in 1973 [15], the reorganised NHS began to operate on 1 April 1974 under a Labour administration which had been elected one month earlier.

The Origins of the Health Services Organisation Research Unit

HSORU was formally established in 1968 with financial support from the Ministry of Health (later the Department of Health and Social Security (DHSS)). The Unit was funded, initially for a period of three years, to undertake research on hospital organisation. However, as its work evolved, and in view of the impending reorganisation of the NHS, its scope quickly widened to cover all aspects of health services organisation.

During the continuing debate, in the late 1960s and early 1970s, about the future structure of the NHS, the NHS and the DHSS valued the contribution of an independent academic research unit which could explore models and concepts upon which the new structure might be built. Before 1974, the Department used HSORU as a resource to develop and analyse ideas, which progressively emerged during successive phases of consultation. After 1974 the Unit was heavily involved in the integration implementation programme. It continued to be consulted by the DHSS about adjustments to the structure which were immediately proposed by the incoming Labour government.[I6]

HSORU was established in what later became the Brunel Institute of Organisation and Social Studies (BIOSS), which was part of the University School of Social Sciences. Various other research units were subsequently added to BIOSS including a Social Services Organisation Research Unit (SSORU) and other research programmes on many aspects of organisation primarily in relation to public and social policy.

During the late 1960s and 1970s, HSORU was funded mainly by the DHSS. The work was also supported by the then North West Metropolitan Regional Hospital Board (RHB) to encourage research, management training and organisational development work on hospital organisation in that Region. The RHB (later North West Thames Regional Health Authority) continued to support the Unit throughout the 1970s and a large proportion of the early fieldwork was undertaken in that Region.

The DHSS funding evolved towards a three-year rolling programme, which enabled the research to be undertaken on a reasonably secure basis. It was understood from the outset that the Unit would be concerned not merely with study but with the active promotion of beneficial, evidence-based change and development. The research methodology therefore had to be action-orientated as well as intellectually robust.

The contractual arrangements for the research gave the Unit considerable discretion to work by invitation with professional staff and managers in the NHS on issues of practical local interest and benefit provided that the results could have more general application. The Unit therefore had the opportunity to work confidentially (and without charge) on local organisation development projects. The aggregation of this local experience enabled the Unit to publish concepts, models or hypotheses which might be more widely applicable within the NHS as a whole.

The first Director of HSORU was Maurice Kogan, a former senior civil servant from the Department of Education. Kogan subsequently became Professor of Government and Head of the School (later Dean of the Faculty) of Social Sciences in the University. The original Head of the School, Professor Elliott Jaques, was instrumental in establishing the Unit under Kogan's direction but subsequently he and Kogan effectively exchanged roles. Kogan took over as Head of the School and pursued research in government, education and social policy. Jaques personally took over the direction of research in HSORU and its sister units in BIOSS.

Maureen Dixon joined Maurice Kogan as a founder member of the Unit, together with Stephen Cang, Heather Tolliday, and Jeanne Balle. Later members of the Unit included Ralph Rowbottom, Tim Packwood, Maggie Plouviez, David Hands, Ian McDonald and Warren Kinston.

The Intellectual Basis of HSORU

The intellectual foundations and research approach of the Unit were set in the context of the then emerging field of management and organisational studies. However, they were strongly influenced by Jaques' earlier experience of clinical psychiatry and organisational psychology and sociology.

Jaques was a Canadian who qualified as a doctor at Toronto and Johns Hopkins Medical Schools. He subsequently completed a Ph.D. in Social Relations at Harvard University. After military service in the Second World War, he settled in England and qualified as a psychoanalyst. In addition to his clinical work he contributed extensively to the clinical professional literature including the seminal paper, *Death and the Mid-Life Crisis,* which was published in 1965.[17]

However, Jaques became progressively more interested in the wider social context of human behaviour and the causes of psychological impairment. He became particularly interested in the functioning of employment organisations and the ways in which they might be designed to avoid alienating employees and causing dysfunctional behaviour and distress. His research led him to believe that this could be achieved by developing a more sophisticated mutual understanding of organisations as social systems and designing more appropriate social structures to help them to achieve both their purpose and the commitment and fulfilment of all employees.

In 1947, Jaques was a founder member of an offshoot of the Tavistock Clinic, the Tavistock Institute of Human Relations (TIHR). TIHR was initially established to further social change and reconstruction in the post war era. The primary focus of TIHR was upon understanding and improving the interaction of people at work and the influence of work, and its organisation, upon conscious and sub-conscious human behaviour. This involved identification and analysis of what were described as *socio-technical systems.* [18]

Jaques' best known contribution to this field was the long term research and development project which he undertook with Wilfred Brown (later Lord Brown), the Managing Director of The Glacier Metal Company. Brown was committed to ensuring that his employees were involved in decisions which affected them and to the improvement of the conditions in which they worked. He wanted to ensure the commitment of employees to enhancing the performance of the Company and sharing in its success. Brown shared Jaques' fascination with the way in which the social structure of organisations had a profound impact upon human behaviour. Together they worked to understand the ways in which the internal structure and management processes at Glacier could actually be *designed* both to fulfil their purposes more effectively and to promote the well-being and commitment of employees.

The action research of the Glacier Project developed a wide variety of evidence-based concepts. The project also produced what were then (and perhaps still are) considered to be radical ideas about industrial democracy. The results of the Project and its methodology were extensively described by Jaques in a series of publications including *The Changing Culture of a Factory* (1951) [19] and *Work, Creativity and Social Justice* (1970) [20] and by Brown and Jaques in *Glacier Project Papers* (1969).[21] Brown published his own experience of the project in *Exploration in Management* (1960) [22] and, more comprehensively, in *Organisation* (1971) [23], which has since become a classic for students of management. A further book in the series, *Organisation Analysis* (1968) [24] was co-authored by Ralph Rowbottom, who later became a Research Fellow and, subsequently, a research Professor within BIOSS, a member of HSORU and Director of SSORU.

Brown later moved from industry into politics. Following his elevation to a peerage, he became Minister of State in the Board of Trade in the Labour Government between 1965 and 1970. Brown continued to be concerned about the way in which the creative contribution of many able people is rendered ineffective in most organisations by a lack

of conceptual clarity about the structural models upon which those organisations are based. His personal experience of industry, education and government convinced him that this continuing confusion created unnecessary misunderstanding and conflict in government, the private and public sectors and organisations generally.

Brown progressively widened his interests to include the reform of the wider institutions of society and government with a view to promoting democracy, equality of opportunity and social justice. He published several proposals including a scheme to reform the second chamber of Parliament by election on an occupational constituency basis. Drawing on his experience of Glacier, he produced constitutional frameworks for employee participation at the workplace. In addition, to address the problems of free-for-all collective bargaining and leap-frogging pay claims, he proposed a standing National Council for the Regulation of (Pay) Differentials.[25]

The Glacier Project also produced the early versions of an analysis of the different kinds and levels of work which are required in organisations to help them to achieve their purpose. This was related to ideas about the ability of individuals to tackle work of different kinds and to develop their personal capacity to do work of an increasingly complex nature.

Jaques and Brown contributed extensively to the literature on personal development and job evaluation. They also worked to design better systems for the achievement of equity in the distribution of the rewards associated with employment by use of a more scientific, objective and "felt fair" assessment process. This research was based primarily on an analysis of levels of responsibility measured by the length of time for which an individual could be held accountable for a task ("time span of discretion"). The work was first published by Jaques in *Equitable Payment* (1961). [26]

The Evolving Theory of Organisations

The early TIHR projects, including the Glacier project, made a significant contribution to the study of organisation and management, a subject that was, at the time, relatively underdeveloped. Brown and Jaques sought to introduce conceptual rigour and evidence to a field which was then short on research-based concepts and which still tends to be over-influenced by the latest fashion and ideology.

Much of the early research on organisation borrowed ideas from the physical sciences. So, for example, the earlier writers of the so-called *Scientific Management* school (such as Taylor[27], Fayol[28] and Urwick[29]) focussed on the work itself and the way its efficiency could be optimised. They made significant contributions to the theory of management but were accused of trying to define immutable laws of organisation and of paying insufficient regard to the human factor and the human consequences of the drive for process efficiency.

The *Human Relations* school developed in response to this relatively mechanistic approach. Writers such as Mayo [30], McGregor [31], Hertzberg [32] and Argyris [33] focussed on the attitudes and behaviour of human beings, both as individuals and in groups, in the work situation. Inevitably, some of these writers were in turn criticised for being too focussed on the psychological well-being of individuals and for having too little regard for the purpose for which the organisation had been established. Later schools have since attempted to reconcile these perspectives or offer others such as decision theory, contingency theory, motivation, cultural analysis or the *open systems* approach which sets the organisation in its wider social environment.[34]

In practice, of course, no individual piece of research or theory has all of the answers. Most of these schools of thought are not mutually exclusive: the practising manager can derive useful insights from many of them. However, as Maureen Dixon pointed out in 1976 in her (unpublished) Master's degree thesis, *Trends in Organisational Design* [35] the critical test for a contribution from research or a theory on organisation is whether the insights ring true for people who work in them and whether the concepts derived from the research can actually be applied with practical benefit. As she put it: *"There are two major problems when it comes to putting these theories into practice. Either the approach is prescriptive and based on the mistaken assumption that there are laws which are universally applicable (the one-best-way management theories) and/or the theoretical framework is simply not convertible into enactable organisational models. . . . . Unless organisation theories can be developed as practical tools to be used in the design and adaptation of organisations, they are little more than untestable generalisations. "* [36]

The early TIHR research on socio-technical systems focussed on the *processes* of interaction between human beings and their work. Jaques and Brown took this approach further in the Glacier Project by looking more closely at the social *structure* in employment organisations. They developed the *task* approach.[37] The primary aim was to ensure that the organisation was optimally arranged so that it could fulfil all of the objectives and functions for which it had been established. However, it was crucial that the organisation should *also* provide a stimulating and constitutionally fair environment in which employees could feel valued both as unique human beings and as contributors to the success of the enterprise. The task approach requires close examination of the *purpose* and *tasks* for which the organisation is established and the design of the requisite social *structures* and *systems* ("anatomy and physiology") which are required to achieve those purposes. In other words, it is axiomatic that the *form* of an organisation should follow its *function.*

The action research methodology which was developed to do this was later described as *social analysis.* This technique places great emphasis on the *evolutionary* development of ideas through wide participation by a progressively enlarging circle of people who then test out the concepts in practice and continue to improve them. The approach seeks to solve the presenting local problems but also develops robust and generalisable concepts which can be tailored to the specific requirements of other organisations: *"This method avoids the difficulties encountered by other approaches by starting with evidence from*

real life working situations and extrapolating these to provide a conceptual framework which can be further tested and refined in organisations. " [38]

The essence of the overall theory of organisation which emerged from the Glacier Project postulates that organisations are invariably created by *associations* of human beings intent upon achieving some social *purpose.* The associations consist of groups of shareholders or, more widely, stakeholders. The association may also be a nation or a local community represented by democratically elected or nominated representatives. The corporate entities created by such associations are the legal embodiment of the association's purpose. Such corporate entities require a top-level decision-making body which is *corporately* accountable to the association for developing the organisation's policies and direction. This is the field which is now usually described as *corporate governance.*

However, the corporate entity, as a governing mechanism, is not in a position to execute the actual work of the organisation. It needs a multi-dimensional, constitutionally arranged structure. This requires first an *executive* structure of managers and others (usually an *executive, or accountability hierarchy).* In turn, in order to cater for the legitimate needs of employees for genuine participation on the enterprise, the development of executive structure and systems demands the development of *representative* structures and systems. The interaction of the executive and representative systems creates the internal *legislative* system which feeds into the wider circle of stakeholders and so into the policies, constitution and governance of the organisation. The executive, representative and legislative systems need to be carefully designed so that they interact as constructively as possible.

The contribution of the Glacier Project to industrial democracy was very significant. The Glacier Metal Company was a pioneer of "Works Councils" at a time when industrial democracy was regarded with considerable suspicion and hostility by both managers and trades unions. The Glacier Councils provided a clear constitutional basis for the participation of employees in the policy-making of their employing organisation and were based on a system of unanimous voting. Glacier-style Councils have rarely been precisely copied elsewhere but the concepts have frequently been adapted for use by many organisations which are serious about giving their employees a real stake in the enterprise. The constitutional structures, particularly the separation of governance from executive structures and explicit mechanisms for employee participation, have been more widely accepted and implemented, at least implicitly, in the so-called "two-tier" company board structures in Scandinavia and continental Europe.[39]

For Jaques and Brown, the development of clearer, more open, understandable and therefore effective, organisation structures required a fundamental analysis of the variety of individual *roles* which, when appropriately linked, comprise the overall structural design. Conceptually it is crucial to separate the requirements of any particular *role* within an organisation from the *personal characteristics* of the person who occupies that role at any one time. Naturally, however, it is important to seek to match roles with the

personal competencies, capacity, aptitudes and interests of the individuals who are asked to fulfil them.

The thread which runs through any executive structure is the line of *accountability* which ultimately goes back to the founding association. Mapping the different kinds of accountability is the key to understanding different roles. Jaques' background as a psychoanalyst led him to undertake extensive and painstaking work (both at Glacier and elsewhere) to understand the relative *feelings* of the different kinds and relative weights of accountability as it is experienced *subjectively* by the people who occupy different roles (whether executive or representative) within the structure.

Roles require careful definition in terms of the boundaries of authority and related accountability within them. So, for example, the definition of a *manager*, derived from social analysis is: *"a person who is accountable for the work outputs of others and for maintaining a team capable of sustaining those outputs".* [40] This kind of research-derived definition was accompanied by a series of evidence-based statements about the minimal authority which had been discovered in practice to be required by a manager to enable both that manager, and that manager's manager, to feel comfortable with the weight of accountability assigned to the role.[41] The level of authority which goes with the accountability also has to be acceptable to those who are accountable to that manager. Similar definitions were derived for the wide variety of other roles and working groups which are required in the matrix of modern organisations.

Any mismatch between a role and the personal *capacity* of the occupant to carry the associated accountability, is likely to lead to role strain or stress. This occurs, for example, when individuals are promoted to a role for which they do not have the personal capacity or when individuals are constrained in a role which is below their capacity. Similarly, any significant ambiguity about the content of a role, or its boundary, or relationship with other roles, is a likely recipe for role stress or conflict.

Jaques developed, as part of the Glacier Project, some early ideas about the quality of different kinds of *output* required from roles at different *levels* of an organisation and the way those requirements could be matched with the assessed *personal capacity* of individuals to operate at those levels. These ideas were later developed within BIOSS as part of a more comprehensive theory about the kinds of work output which requisitely are required from different organisational levels. The BIOSS work also made a contribution to the development of the psychological assessment of the capacity of individuals to undertake particular types of work.

In 1975, Jaques published, primarily for a sociological audience, a comprehensive account of the development, to that date, of all of the ideas which had been developed at Glacier and BIOSS in his unexcitingly titled *General Theory of Bureaucracy* [42] (defined in the technical, sociological sense). This book was later republished, in a more popular form, entitled *Requisite Organisation: the CEO's Guide to Creative Structure and Leadership* (1989).[43]

Social Analysis

The concept of *requisite* organisation is an important part of the research method developed by TIHR and HSORU which was described as *social analysis.* [44] The technique has also been described as *organisational analysis* but that term has also been applied to a wider range of research methods. The social analytic technique is intended to help an organisation collectively and progressively to think through, and resolve, its own organisational problems with the help of a change agent (the consultant or researcher). It involves the development of explicit, clear and practical approaches to change which carry the commitment and support of all the people who are committed to improvement. At the same time, the approach is capable of developing robust and credible concepts and models of organisation which have wider applicability to organisations other than those in which they were developed.

The social analytic approach is explicitly concerned with those features of organisation which can be the subject of improvement rather than those things which are not readily amenable to change (like the personality of individuals). The assumptions upon which the method is based, as stated by Brown, are:

- *"specific individual behaviour at work is as likely to arise from the nature of the role which the individual occupies, its relation with other roles, and with the entire structure of the social system within which that role is positioned, as from the personality of the individual.*

- *in order to create an environment at work that will stimulate social as opposed to anti-social behaviour, we must be able to describe that environment in a clear language in which all of us can communicate with each other, so that we share the same mental models of the social institutions within which we can take up different roles ".* [45]

The methodology involves the researcher, together with a series of people who work in the organisation, in an exploration, on a *confidential* basis, and in a semi-structured manner, of the issues which are felt to be relevant by the interviewees. Interviews continue until both the researcher and the individual interviewees have agreed (preferably in writing) a statement of each participant's perception of the relevant issues. The researcher then progressively aggregates, anonymously, the perceptions of individuals until general statements about the issues facing the organisation can be distilled. The researcher progressively feeds back information to individuals and groups who discuss the issues until the organisation has agreed the action which needs to be taken. The action may relate to changes in structure, process or any other aspect of the work of the organisation.

This technique is a powerful instrument for organisational development because it builds consensus (and therefore commitment) within the organisation about its goals and the *requisite* structure and systems to achieve them. It is also scientifically valid because it continuously tests out emerging concepts with those with experience in the field who have responsibility for putting them into practice.

The conceptual links with psychoanalysis are obvious: the organisation must initiate the research and must participate in gaining progressively greater insight into the nature and solution of its own problems. However, the method strictly does not and must not, in any sense, involve any kind of exploration of the psyche of individuals: it is focussed only on their role within the organisation.

The process of social analysis usually progresses through a series of inter-related stages: consideration of the *manifest, assumed, extant and requisite* situations. The *manifest* is the situation as formally acknowledged at the beginning of discussions (such as the structure published in an organisational chart). The *assumed* is the unanalysed view of what individuals subjectively believe to be the actual situation in real life. Following analysis and discussion, individuals and groups usually come to see that the more objective reality (gathered from a series of assumed pictures) is rather different from what they previously thought (the *extant).* Acceptance of this position usually then leads to a higher level discussion of, and a decision on, what is *requisite* in the local situation. The requisite is not a statement of the ideal or Utopian but a statement of what, given the local constraints, is considered to be the optimum achievable.

This framework, indicating the stages in collaborative effort between the researchers and the local actors to continuously improve the functioning of an organisation, is much more sophisticated, than the venerable, but merely descriptive, distinction between so-called "formal" and "informal" organisation. It is also much more effective in achieving desirable change,

The Distinctive Contribution of HSORU

Soon after the establishment of the Unit in 1968, the research team rapidly built up a series of local projects, working extensively with clinicians and managers in various parts of the NHS, on a variety of organisational issues, related either to entire NHS organisations (such as a hospital) or specific services or departments. The members of the Unit worked either as individuals or, more usually, in small teams, armed with the concepts derived from TIHR and Glacier, and applying social analysis as a research and development tool.

The local projects were influential in raising the prevailing level of debate, particularly between clinicians and managers, about the objectives and organisation of local services and the way they could be improved. The NHS at the time was rather territorial: individual professional disciplines tended to work in almost watertight compartments.

Hospital management was based on so-called "tri-partite administration" (as defined by the Bradbeer Committee in 1954 [46]) with doctors, nurses, administrators and others occupying distinct and almost mutually exclusive territories. The Brunel work was important in helping health service professionals of all disciplines to see the bigger picture and to recognise that the whole could be greater than the sum of the parts.

The Unit became well known for its ability to improve organisations by clarifying and redesigning more requisite organisation structures. However, its work frequently had more far reaching effects. For example, some of the Unit's early work at the Westminster Hospital stimulated the development of information systems to enable doctors to make a wider contribution to hospital management. This eventually led to the King's Fund "CASPE" project, led by Iden Wickings, which was one of the foundations for later initiatives on resource-management and clinical audit.[47]

In the early days, the researchers also had the opportunity to work on the design of some new health service organisations. For example, in the late 1960s, the North West Metropolitan RHB was building a new hospital at Northwick Park. HSORU worked with the new management team and helped it to design a new organisation from scratch. The operational systems and structures of this hospital were developed and documented to a degree which was unprecedented at the time and has rarely been matched since.[48] These concepts took root elsewhere in the country particularly where new facilities were being commissioned. The Unit's first publications, *Working Relationships Within the British Hospital Service* (1971) [49] and *Hospital Organisation* (1973) [50] were based on this early experience of hospital services.

The open, free access to the Unit, encouraged by the RHB and the DHSS, made it relatively easy for the Service to seek help but the reputation of the researchers as people who could help to achieve positive local change quickly spread. However, the other role of the Unit was to produce research reports which could have more general application. The validity of the Unit's field work findings were therefore regularly tested in research conferences which were called to consider either specific subjects or concepts which might have wider usefulness. Frequently, representatives from sites where the researchers had been working, together with other invited guests, were asked to meet to discuss emerging ideas.

When the validity of the concepts had been sufficiently tested, the Unit would publish a working paper for discussion. In recognition of the fact that these papers were the product of the collaborative work of many people, both NHS staff and researchers, the early papers were published in the name of the Unit without attribution to individual authors. These papers frequently stimulated invitations to undertake further or new work. The publications were therefore part of a progressive and ever-widening social analytic and development process.

The concepts derived from Glacier were an important foundation for the work of the Unit but it quickly became apparent that, whilst there were many similarities, there were also

important differences between health care organisations and engineering factories. The most important are, first, the personalised nature of health services to the sick and secondly, the presence of a wide variety of highly trained professional staff with varying degrees of unique knowledge who therefore acquire considerable, but varying, degrees of autonomy in relation to their decisions and actions. There is a rich literature on the sociology of the professions but the Brunel contribution to the concept of clinical autonomy was highly significant because it provided an evidence-based analysis of the powerful, subjective reality of the felt accountability of clinically autonomous professionals to patients, the general public and their professional peers.

The HSORU analysis of the accountability of fully fledged doctors (Consultants and GPs) showed that the clinical autonomy of hospital consultant medical staff and General Practitioners, which is derived from their *personal* accountability to provide treatment for patients, was an essential factor to be taken into account when designing the structure of health care organisations. Such individuals cannot simply be slotted simplisticly into a managerial hierarchy . On the other hand, they could not be totally unaccountable to the organisation which either employed them or with which they were in contract. The Brunel work helped both doctors and managers to discuss objectively the way in which the clinical autonomy of doctors could be reconciled with their accountability within the NHS. It provided models upon which the then new "Cogwheel" [51] medical advisory structures could be built. It showed the need for carefully structured and explicit "integrative mechanisms" between the perspectives of those who occupied roles in the executive hierarchy and those who were located within the medical peer group.

Later HSORU work extended to the complex field of *inter-professional practice* or "teamwork" including the concepts of the situational "primacy" of one profession in relation to others and degrees of autonomy (for example, "personalised" or "agency" practice assumptions) which are crucial factors in determining the requisite authority relationships of different clinical or other professionals in a given situation.[52]

HSORU and the 1974 NHS Reorganisation

Although HSORU completed many local projects, the Unit is perhaps best known for its work on the 1974 reorganisation of the NHS. It was formally invited by the DHSS to work, together with the management consultants, McKinsey and Co., as consultants to the national Steering Group which had been established on the publication of the 1972 White Paper, *"to make recommendations on management systems for the services for which Regional and Area Health Authorities will be responsible and on the internal organisation of those authorities ".*

Neither the study group nor its advisers were in a position to be able to design a National Health Service from first principles. The report of the Group, which was published in 1972, as *Management Arrangements for the Reorganised National Health Service* [53] (popularly known as *The Grey Book)* was constrained by the political decisions which

had already been made on the broad structure of an integrated Service. These required that there should be fourteen Regional Health Authorities and approximately ninety Area Health Authorities. These decisions had in turn been influenced by professional and other pressures similar to those which resulted in the original tripartite structural compromise of 1948. Interestingly, the NHS Management Study which produced *The Grey Book* was explicitly precluded from considering the future structure of the DHSS which was the subject of a quite separate study by different consultants employed by McKinsey and Co.

The political decisions about the levels of organisation to be established in the restructured Service were also influenced by the parallel decisions which had been taken about the future (two-tier) structure of local government. The key political decision, which had been taken before the NHS Management Study Group was established, was to establish new Area Health Authorities on the same geographical boundaries as their related local government authorities. This required organisational arrangements for the new Health Authorities to be compromised, in terms of their size and definition, by the new local government structure. This meant that approximately two thirds of the new Areas had to contain more than one health service district (as defined by the study group).

The principal criticism of the 1974 reorganisation, which was later crystalised by the 1979 Royal Commission on the NHS [54] was that *"there is one (management) tier too many in most places "* This led ultimately to the merger of the District and Area tiers (and the abolition of multi-district Areas) in 1982.[55] This restructuring finally established the District Health Authority (based on an average population of 250,000) as the fundamental operational Unit within the Service.

It became part of the folklore of the NHS to blame the *Grey Book* for the shortcomings of the 1974 restructuring. However, such criticism ignores the political constraints of the time. The Reorganisation Steering Group and its advisers had to make the best of an overall structure which had already been determined by political compromise. Furthermore, the reactions to the proposed changes by various vested interests should not be underestimated. The new structure challenged health professionals of all disciplines to widen their horizons beyond their immediate previous professional or organisational experience. This, for many, was not a comfortable experience. The lack of early commitment by the new Labour government to their predecessor's legislation also slowed the impetus for change.

The enormous achievement of the 1974 reorganisation was to lay the foundations for an integrated organisational structure for the NHS. The principal contribution of the *Grey Book* was the concept of the *Comprehensive Health District.* The germ of this idea could be found in the report of the 1968 Bonham Carter report on *The Functions of the District General Hospital*[56] but the 1972 study went further. It established for the first time the idea that the requisite primary basis for health service organisation is the *population* whose health needs have to be met. The Study report postulated that NHS management should optimally be based on an average population of 250,000 people and that District

organisation should be conceptualised in terms of a three dimensional model which is first designed to identify the health *needs* of the population. The District should then seek to satisfy those needs within its resources by the appropriate deployment of the *skills* of the professional staff in the *places* (primary care centres, hospitals and patient's own homes) where care is provided.

This concept translated into the executive structure of a *District Management Team,* the individual members of which were to be accountable to the governing body, the corporately accountable governing Health Authority, for all aspects of the designated population's health from prevention to tertiary care. The District Management Team provided, in turn, a platform for the later strengthening of *general* management in the NHS following the Griffiths review of 1983. [57]

The 1982 restructuring, which followed the 1979 Royal Commission, was also influenced by further publications by HSORU, particularly a book on *Health Services* (1978) [58] and a working paper published the same year on *National Health Service Reorganisation.* [59] This focussed on the concept of *"the basic unit"* (a health district) for the provision of comprehensive health care. This was based on an analysis of the fundamental purposes and tasks of a health service following the fundamental HSORU philosophy that organisations are best structured from the "bottom up."

The other important concept proposed by the "Grey Book" was a *health care planning system* based upon the development of a comprehensive needs-based health plan for each local district population. This was to be based on an analysis of the needs of different *care groups* in the population. This later was to be re-interpreted, in the post 1990 NHS, in the concept of local, needs-based commissioning for *health gain* by health care purchasers. It is now being extended by the development of *Health Improvement Programmes* and condition-based protocols and pathways within a redefined concept of integrated care.[60]

The principal conceptual contributions which HSORU made to the 1974 reorganisation can be traced in the Unit's *Working Papers on the Reorganisation of the National Health Service* [61] which were published in 1973. Later contributions were published in subsequent working papers such as *Professionals in Health and Social Services* [62] and *Collaboration Between Health and Social Services* [63] and in the Unit's 1978 book on *Health Services.* [64] There were also publications on individual services such as mental health services for children.[65]

The 1973 *Working Papers* covered a range of topics which explained the basis of the ideas in the *Grey Book* and the way in which they might best be interpreted. They included papers on:

- *Managers, Monitoring and Coordination*

- *Can Consultants and GPs have Managers?*
- *The Functions of Members of RHAs and AHAs*
- *Leadership and the Functioning of Teams and Committees*
- *Authority Direct Appointees*
- *Organisation Levels, Management Levels and Grades*
- *The Selection Process*
- *Consensus, Veto Power and "Unanimous" Decisions*

The Papers contained a glossary of basic organisational concepts, which were essential to a full understanding of the *Grey Book.* The concepts were also reproduced in other HSORU working papers and books.

Probably the most important HSORU contribution to the *Grey Book* was the analysis of the accountability and *clinical autonomy* of Consultant medical staff and GPs which formed the basis for the decision that District Management Teams should consist of both permanent occupants of full-time managerial roles and elected *representatives* of the Consultant and GP peer Groups.

It followed that, since the management team included both members of an executive hierarchy and representatives of a peer group, no individual role could be dominant. The decisions of such teams should requisitely therefore be made by *consensus.* The Brunel working paper made it clear that, because each member of the team had an explicit veto on collective decisions, consensus in this context meant unanimity. Failure by the team to reach a unanimous decision on a matter of substance would require referral to the corporate authority for a majority decision. This was a powerful, although challenging, incentive to ensure that the team worked on an issue until an acceptable decision was reached.

The concept of consensus, as originally conceived, was not, as some critics later claimed, a vague arrangement to ensure that decision making was based on the lowest common denominator or deferred indefinitely. On the contrary, as described by HSORU, the mechanism was intended explicitly to ensure that substantial issues were raised and fully aired in a constitutional multidisciplinary manner before a decision was reached. Failure to reach a decision in the DMT required referral for a decision by the Health Authority. The concept reflected the extant reality that, like it or not, medical consultants and GPs effectively had the power to take their bat home if they wished.

Consensus decision-making was necessary to reconcile the perspectives of the management hierarchies with the professional peer groups and was an important foundation for better mutual understanding between clinicians and managers. However, the challenges of the new arrangements, and their more open and explicit nature, undoubtedly proved unpopular with some who preferred the status quo or who wished to continue to take unilateral decisions within the territory they perceived as their own.

The NHS was too immature managerially in 1974 to embrace the concept of general management as later expounded by Griffiths. Griffiths made it clear in his (1983) report [66] that he wished to reinforce the notion of consensus. He indicated that good general management encouraged consensus but must not shirk from articulating and testing out a clear vision and ensuring that difficult decisions are taken. His report also strongly emphasised the importance of ensuring the commitment of doctors and other clinicians to those decisions. The general mangers, who were appointed after 1983, who ignored the principles of consensus and the effective veto power of the medical profession, if they chose to exercise it, usually discovered its extant reality the hard way.

The development of the understanding of the relationship between managerial and clinical roles by HSORU was linked to a wider range of organisational concepts, particularly those which emphasise lateral, as opposed to vertical, role relationships. For example, the Service in the early days after 1974 was very much absorbed (and somewhat amused) by the new concept of "monitoring". This was based on the then novel idea that health authorities might develop policies and strategies to improve the health status of their populations. This required a new matrix of information systems and organisational arrangements (such as clinical and project teams) which could not be described in the form of a simple executive hierarchy. These matrices were later described by Maureen Dixon in a book on *Matrix Organisation* (1977) [67] and later by Maureen and others in *Effective Unit Management.* (1983).[68]

The third major Brunel contribution, which was only partially developed in 1974, was the work on the definition of *organisational levels.* These ideas were articulated in the 1973 working papers and elaborated in Jaques' *General Theory of Bureaucracy* [69] and by Rowbottom and Billis in their paper on *The Stratification of Work and Organisational Design* in the 1978 Unit book on *Health Services* [70] This framework was increasingly applied by HSORU and SSORU in their work in the late 1970s and 1980s.

In parallel to the application of these ideas in health and social care, Elliott Jaques and Gillian Stamp worked on the more fundamental theory which enlarged upon Jaques' earlier work on *Equitable Payment* [71] and the concept of *Timespan of Discretion.* The product of this research was published at a more theoretical level by Jaques in 1983 in *The Form of Time.* [72]

The other innovation which was introduced in the NHS in 1974 was the *Community Health Council* (CHC). In the debate on the Green Papers published in the 1960s a key issue was whether health authorities should be part of local government or otherwise

democratically elected. Brunel thinking, derived from the Glacier experience of representative systems, influenced the final decision that, since it had then been decided that health authorities would not be elected, CHCs should be established separately from health authorities to more adequately represent the consumer perspective than would have been the case if a token "consumer" had been added to the membership of each authority.

The Continuing Contribution of the HSORU Research

The work of the original HSORU continued into the late 1980s. Some of its work still continues in different settings. In the 1980s the work of the Unit progressively broadened beyond organisational analysis to incorporate other dimensions of health services. To reflect this the Unit became a "Health Services Centre". The health-related work of the University also broadened and became more dispersed as Brunel grew larger and merged with other institutions. For example, research in Health Economics was established and the University became responsible for the clinical education of non-medical health professions as it accredited or absorbed NHS clinical professional training programmes.

HSORU continued, in the late 1980s and early 1990s, to produce working papers and other publications which contributed to current themes in the NHS. Papers were produced on the organisation of the post-1982 Districts, [73] corporate governance [74] and general management.[75] [76] There were also further contributions to the analysis of the way in which different services, or professions such as psychology [77] and nursing [78] might be developed. The Unit also continued to contribute to the continuing debate about "lateral" working relationships and teamwork in health care.[79] [80] [81] [82]

The ideas developed in HSORU were also developed in parallel in SSORU, led by Ralph Rowbottom, and were extensively applied in the organisation of Social Work and Local Authority Social Services Departments. They were also applied in Housing Management and Youth Services. The Units of BIOSS were also engaged from time to time in external consultancy projects with an extensive range of commercial and voluntary organisations.

Following the retirement of Elliott Jaques and other senior members of HSORU in the late 1980s, the Health Services Centre also rebalanced its work to incorporate further consideration of organisational *process* in addition to structure. This was particularly notable in the work which was done by John Ovretveit on the development of concepts of health services *quality.* [83] Later work also reconsidered both structure and process in the wider context of organisational *values.* [84] This work was brought together by Warren Kinston in his substantial book *Working with Values: Software of the Mind.* [85]

Although the question of values was not a recurring theme of the earlier, more technical HSORU papers on organisation, the issue was fundamental to the work of BIOSS. The analysis of the values underlying social policy was fundamental to the University programmes in Public and Social Policy led by Maurice Kogan. Maurice Kogan and Tim Packwood blended value frameworks with BIOSS organisational concepts in their

extensive research on education, including work on the governance and management of schools.

As well as their work together, the individual members of HSORU have since taken their experience into the rest of their careers. One of the reasons the Brunel work was so influential in the development of the NHS in the 1970s was the link which the Unit had with the King's Fund. Three members of the Unit, Maureen Dixon, Tim Packwood and David Hands, each had, for different periods of time between 1967 and 1986, full and part-time teaching appointments at the King's Fund College.

The immediate task in 1974 was to participate in the extensive and intensive series of national "integration" courses which were held at the College and elsewhere in the country to prepare NHS managers and others for the challenge of the reorganised NHS. At this time, members of the Unit were also in demand to advise on similar health service reorganisations overseas particularly in Australia, New Zealand and the Republic of Ireland.

Maureen Dixon left the Unit in 1976 to take up an appointment as Associate Professor of Health Services Management at the University of Toronto. Whilst there she completed her Ph.D. thesis on *The Organisation of District Health Councils in Ontario.* [86] She returned to the Kings Fund in 1980 to develop and lead the new Corporate Management Programme. In 1986 she became Director of the Institute of Health Services Management (IHSM) and, in 1990, IHSM Consultants, where she was subsequently joined by David Hands.

The 1990 IHSM study of NHS Clinical Directorates, *Models of Clinical Management*[87], which was based on research in 40 NHS hospitals, and which Maureen led, incorporated a restatement and reformulation for the 1990s of original HSORU thinking on the relationship between clinical and managerial work. This publication was, and remains, strongly influential in relation to the development of clinical directorate structures in hospitals and beyond. The ideas were applied in many consultancy projects undertaken by IHSM Consultants. This work on organisational design and development continued when IHSM Consultants became part of Healthcare Risk Resources International Limited, of which Maureen was Managing Director from 1996 until her death in 1997.

Other members of the original Unit have also taken Brunel thinking into development work elsewhere. For example, Warren Kinston and David Hands have extensively used HSORU/BIOSS and related concepts in the NHS and health systems overseas. John Ovretveit has continued to work on health service organisational and quality issues following his appointment to a Chair of Health Services Management at the Nordic School of Public Health in Sweden.

Following his retirement from the Chair at Brunel, Elliott Jaques went to live in the USA where, after writing *Requisite Organisation,* he continued his research and consultancy on organisational design, executive leadership [88] and human capability.[89]

HSORU Concepts, the 1990 "Reforms" and "The New NHS"

A review of HSORU, BIOSS and Glacier publications, and the research, consultancy and writing of individuals who have now left Brunel, shows their continuing relevance to the recurring themes of the continuing debate about health services organisation. Health service managers and other professionals may, understandably, have grown weary of reorganisation but they cannot escape the continuing debate about structural change and the underlying issues about *accountability* which was the starting point for the work of HSORU. This question has now re-surfaced most significantly in relation to the fundamental issue of clinical effectiveness and the structures and systems of clinical and corporate governance which are required to assure quality.

Although there is considerable accumulated evidence about what works best in terms of organisation and management practice in different settings, the fundamental questions about health service organisation still remain. For example:

- *Is a nationally organised, tax-funded NHS the optimum way to promote the health of a population and to respond to the needs of individuals when they become ill or disabled?*

- *How might health services best work together with those in complementary services such as housing, environmental health, education and social services?*

- *How can the NHS best be organised to promote both health gain for populations and the maximum effectiveness of individual clinical interventions?*

- *How can requisitely autonomous professionals be held accountable for their performance?*

- *How might doctors, and others with considerable degrees of clinical autonomy, best be linked into management so that management responds to their valid clinical perspective and so that management can best influence clinical practice?*

- *What are the requisite authority and accountability relationships between the different kinds of clinical staff who need to work together in teams to meet the needs of individual patients ?*

- *Which incentives (not only financial) are most effective in promoting desirable behaviours by both patients and staff? What framework of rewards should be adopted?*

- *Which organisational models are most relevant as a basis for the design of the organisation as a whole and its constituent parts?*

- *What is the appropriate balance between delegation and centralisation in a publicly-funded Service?*

- *What should be the role and constitution of the corporate bodies which are accountable for the governance of the service: should they be elected or appointed?*

- *How many levels of organisation are needed to run the Service efficiently and effectively? What work outputs can be expected from each level?*

- *How can the "customer" orientation of the service best be maintained and the perspective of the users of the Service represented?*

- *How can legitimate employee interests best be served and how can employees be enabled to contribute to the development of the Service?*

The development programme for *The New NHS* provides a new opportunity to readdress these and similar fundamental questions. HSORU research still offers much in the way of concepts and models on which discussion might be based.

The 1974 reorganisation was commonly criticised for its overprescription of detail. The *Grey Book can* be legitimately criticised for containing too many detailed job descriptions and too little about vision and service models. However, the aim of the 1974 reorganisation (to promote better integrated health care) commanded broad support throughout the Service. The Brunel contribution was very largely to articulate and translate these aspirations into workable organisational models.

In contrast, the 1990 "Reforms" were driven by ideology rather than by evidence or analysis. The right wing intention to establish a free market in health care was, as a former member of the original Thatcher cabinet, Ian Gilmour, wrote in 1992, *"a prime example of its subordination of its experience to ideology".*[90]

In the late 1980s, with the primary objective of reducing public expenditure, the government of the day actively explored alternatives to the NHS. Having concluded reluctantly that no alternative would be more cost-effective or be likely to command public support, it was nevertheless decided, with no effective consultation with the informed health service world, and despite overwhelming international evidence of the dangers, to apply market forces to the system.

The hidden agenda of the 1990 Reforms was to promote fragmentation of the NHS. As Gilmour put it, *"the logic of the reforms pointed to the fragmentation of the health*

service and to an eventual position to something like the pre-war position; the poor received inferior health carefree, and the rest, in varying degrees and by various means paid for a better one ". [91] The Reforms also assumed that health care was primarily about short episodes of acute and readily curable illness, the performance of which could be measured by simplistic notions of "throughput". It was assumed, again contrary to the evidence, that costs would fall as "efficiency" increased.

The organisational arrangements required to establish the "internal market" were sketched only in outline and expected to evolve, without any piloting, within the competitive environment. That they worked at all is a tribute to the health professionals of all disciplines who seized the undoubted opportunities for innovation, imaginatively reinterpreted the objectives to be more congruent with basic NHS values and experience, and progressively adjusted the implementation of initiatives to ameliorate their potential worst effects.

Despite these fundamental defects, the 1990 Reforms undoubtedly achieved some beneficial results. They were certainly significant in compelling the service, and particularly the medical profession, to adopt a stronger customer orientation in relation to patients. Through the contracting system, they also obliged managers and clinicians to communicate more fundamentally with each other about the organisation and delivery of patient care and begin to address the more basic issues of objectives, organisation and performance of specific services. Paradoxically, reforms which were financially driven, led indirectly to the eventual realization, and broad professional and political consensus, that quality and outcomes should be the driving themes for the next phase of evolution of the Service

The challenge now, for politicians and health service professionals, is to consider the evidence which is available (and commission further research when it is not) to determine what organisational structures and processes are now required to support population health gain and best clinical practice. The 1974 and 1982 concepts may no longer be entirely relevant and require critical review. For example, since 1990 and the establishment of NHS Trusts, the 1974 concept of a comprehensive health district has receded as the dominant model for the local provision of comprehensive health care. The population of 250,000 is also being questioned as the optimum basis for the assessment of population health needs and the commissioning of services.

The demise of the Comprehensive Health District was largely a result of the 1990 imperative to fragment in order to promote competition. However, there are also underlying changes in the nature of health care which also demand that this model should be reconsidered. For example, there is now better understanding of the importance of primary care within the total picture and further questioning, in the light of technological advances, of the 1968 Bonham-Carter concept of the size and configuration of the District General Hospital.

The concept of "the basic unit" or the "natural health care community", as described by HSORU, for the provision of local services is therefore now overdue for reconsideration. Should this, for example, be the 100,000 population suggested for the new Primary Care Groups or Trusts? Similarly the concept of a hospital is due for explicit reconsideration as beds become less dominant a feature of hospital functioning and as technological innovation rapidly changes the range of models upon which specialist service interaction with primary care might be constructed. This is a new opportunity to consider "integrated care" in the context of evidence-based clinical practice and organisation and the definition of optimum patient pathways through the continuum of care.

The concepts of *integrated care* and the promotion of *Health Improvement Programmes* as described in *The New NHS* echo the Service based on *Needs, Skills and Places* which was described in 1974 . The latest proposals have generally been well received by the health services community as a symbol of a return to the basic aims and values of the NHS. However, these statements about *the function* and *purpose* of the Service need to be complemented by more developed models about the *form* which the Service should take and the requisite institutions upon which such integration might be based. The achievement of truly integrated care will depend upon greater clarity and mutual understanding about the relative roles and responsibilities of the professionals and organisational entities accountable for delivering it.[92]

The basic question about the location of accountability within the Service raises again the importance of *governance:* the form and nature of health institutions and their corporate accountability to government: the "association" for the purpose of the provision of the NHS. There is an unresolved debate about whether health authorities, and other corporate bodies within the structure, should be elected or appointed. However, the more fundamental issue is the perceived accountability of those institutions, ultimately to the public at large, within a tax funded and publicly-owned NHS.

The original HSORU analysis showed the importance of creating health authorities which, whether elected or not, were comprised of an appropriate blend of entirely non-executive members (governors) who could be seen to be broadly representative of the population as a whole. [93] The 1990 reforms shook public confidence by selecting non-executive members of NHS bodies from too narrow a constituency base and by introducing a mixed executive/non-executive membership of health authorities and NHS Trusts. Mixed membership created confusion about roles and accountability. [94] In some places the confusion led directly to conflict and corruption.[95]

The government were later compelled to appoint the Nolan Committee [96] to address these and related problems in other areas of public life. Nolan sought to resolve the problem by introducing complex *systems* of checks and balances in the corporate governance of the NHS but did not address the fundamental *structural* faults which confused the crucial distinction between accountability for governance and accountability for management at all levels of the Service.

The Brunel analysis of the requisite number and type of organisational levels required to create optimum functioning within organisations is still the most comprehensive and evidence-based framework for designing organisation structures, particularly now that it has become fashionable to "de-layer" or "flatten" executive hierarchies. The failure of some of these initiatives, both within and outside the NHS, shows that restructuring of levels works best if it is preceded by a reasonable understanding about the work outputs that each level is intended to produce.[97]

The concepts of work strata have been applied with benefit in many health care organisations and still have considerable potential to improve internal functioning and external relationships. They are also relevant in clarifying the distinction between management levels and salary grades, a confusion which has bedevilled the NHS for many years. These ideas are particularly relevant if it is now intended to reconsider a coherent national framework for human resources and for salaries and conditions of service for NHS employees. The related concepts of employee participation might also be dusted off in the light of more recent interest in democracy at work and developments in relation to "two-tier boards" in the European Union.

A sophisticated understanding of the role of doctors (and other autonomous professionals) in relation to management is still central to the success of health care leadership and organisation. [98] The headlong rush into clinical directorates in 1990 was frequently based on the naive assumption that, if doctors were given managerial responsibility for services in which they had a clinical role, the resource and other management problems would magically be resolved. That view seriously underestimated the role conflicts involved for clinicians.

The 1990 IHSM study *of Models of Clinical Management* [99] revealed that at least three models of clinical directorate were then in existence. Only rarely was the "Consultant-Manager" the extant model. The trend seems increasingly to be towards the model of the representative "Lead Consultant" working with a "Clinical General Manager" (from any former discipline) within some kind of patient or condition-focussed directorate structure.

This structure reflects the reality of the subjectively felt accountability of consultants described in the Brunel work of the 1970s, the important distinctions between coordinative, representative and managerial roles, the value of conceptualising and designing the *lateral* dimension of role relationships in relation to both clinical and managerial work and the importance of establishing explicit *integrative* mechanisms at all levels to bridge the potential divide between clinical and managerial perspectives. A renewed and accepted understanding of the boundaries of clinical autonomy is an essential foundation to the development of clinical governance.

The Implications for the Design of Organisations Generally

The relevance of the work of HSORU, and its antecedents, is not limited to health care. The contribution of BIOSS, and the pioneering work of Glacier and TIHR, have influenced, and continue to influence thinking about the way in which commercial, public sector and the full range of social institutions, might be better structured to fulfil their purposes.

The Brunel work, and the concepts derived from Glacier, are not without their critics. At the broadest level, there is the cynical view that most organisations, particularly large or multi-national organisations, are by their nature inherently either oppressive or dysfunctional in relation to more important and fundamental human values. This cynical attitude is to some extent understandable in view of the alienating effect which many organisations can have on large numbers of people. However, organisations are essential to the achievement of human objectives: the constructive solution would seem to be to seek new ways of constituting social institutions and ensuring their closer accountability to all of their stakeholders, including employees.

Secondly, there is a view, very prevalent in the NHS in 1974, that any kind of management or "managerialism" is entirely antithetical to the "caring professions" or to organisations, like the NHS, which have a human or social purpose. This view is frequently based on a misguided understanding of the nature, values, aspirations and altruism of management and a touching faith that "caring" is always altruistic and requires little or no organisation. However bizarre this view may seem to managers, it is still widely held by many clinical professionals and members of the general public. It was probably reinforced to some degree by the insensitive and unethical behaviour, encouraged by a competitive and results-driven political climate, of some NHS managers during the implementation of the 1990 reforms.

Amongst organisational theorists, particularly those of the "human relations" tendency, Glacier and Brunel thinking has sometimes been characterised, as "scientific management" with the implication that it is therefore somewhat old fashioned and unconcerned about the human dimension of organisation. This suggestion is probably attributable to the Brunel quest for generalisable concepts and principles of organisation and its insistence on tightly defined, personality independent, definitions of organisational roles. However, whilst the structural concepts are independent of the people who might occupy specific roles, the principal purpose of the research was to create organisations which are both effective and non-alienating. The principles and concepts derived from Glacier and Brunel research were intended to promote individual fulfilment and, unlike some earlier research, derived from painstaking and extensive field work with employees of all kinds which was continually tested out and refined in practice.

The Brunel work has validly been criticised for focussing principally on organisational structure. However, structure was always seen by the researchers as a means of enabling organisational purpose. Structure is a crucial framework for the constitution of organisations and their development. Appropriate (or "requisite") structure is a necessary

but insufficient condition for organisational success: without a supportive anatomy, an organisation's physiology is likely to interact in an unfocused manner.

Structure is clearly not the only important dimension of organisation. Other dimensions were not ignored by BIOSS (see, for example, the work on values and development of human capacity) but the Brunel school is clearly structuralist in orientation. However, the contribution of anatomists should not be ignored or denigrated because they are not physiologists. The Brunel structural concepts are the most rigorous and robust of their kind. They provide for practising managers a unique range of practical tools for the diagnosis, analysis and solution of the structural problems of organisations. Clearly, however, this perspective of organisation needs to be set alongside the contribution of others who have focussed on other aspects of organisational development.

The Brunel school has also been criticised for its advocacy of the need to improve the functioning of the executive hierarchy. Many critics have argued that hierarchy is outmoded and should be replaced. However, hierarchy seems remarkably resilient and the critics are not very clear about what might replace it or how the essential requirement for achieving accountability might be met.

HSORU and BIOSS described the executive hierarchy as one dimension of organisation. They also analysed and described the circumstances (such as the requirement for clinical autonomy) where managerial roles were not appropriate. However, the Brunel thesis was that hierarchy was an inevitable and necessary feature of most employment organisations. Its purpose is to distribute accountability to the association. The important task is therefore to ensure that the hierarchy works effectively within a carefully designed constitutional framework which safeguards the legitimate rights of individuals employed within the organisation and other stakeholders. [100] Clearly the design of hierarchies needs to be considered in the context of the full range of organisational roles and wider sociological concepts, such as values, markets and networks, which are associated with the coordination of the wider aspects of social life. [101]

The Brunel work has not been comprehensively and independently evaluated. However, the Glacier project was critically reviewed in detail in 1968 by Joe Kelly, an American social psychologist. His final verdict on the Glacier work was "Consistent, yes. Valid, not always. Elegant, yes. Utilitarian value, considerable".[102] The methodology and range of concepts has been considerably refined since then.

Maureen Dixon's M.Phil, thesis, *Trends in Organisational Design*, [103] written in 1976, would provide a sound basis for a further evaluation. The thesis reached some general conclusions about the application of organisational theory in general, and the Brunel experience in particular, to the design of large scale employment organisations in modern society. It was written to counter the principal criticisms of the Glacier/Brunel contribution to organisational theory, particularly the frequent claim that the executive hierarchy is no longer relevant or appropriate to organisations or society at large.

The conclusions of Maureen's thesis elegantly summarise the broader HSORU/BIOSS research findings about organisational design, and are directly relevant to the further development of the NHS and other large-scale organisations, particularly the effective use of hierarchies. They were set out in four general propositions:

1. *Organisations are primarily about accountability, not authority or power;*

2. *All work is not the same;*

3. *The managerial hierarchy is one form of organisation with particular qualities: it is not intrinsically good or bad;*

4. *Organisational specification and definition is not inhibiting.*

The first proposition relates back to the fundamental concept, established during the Glacier Project, that organisations and their related employment hierarchies are usually established by an association of some kind. The association has some purpose in mind and expects both the governing body and the executive hierarchy to be accountable for achieving it. *"The individual who takes up a role in an employment hierarchy enters into a contract with the association not to exercise authority but to be accountable for the duties attached to the role. "* [104] This is the case whether the individual occupies a role in the executive hierarchy or a quasi-autonomous professional position. It follow that *"the first question in designing an organisation must be: what kind of accountability system do we wish to create? "* [105]

Apart from the need to establish accountability in organisations, there is another reason why hierarchical structures stubbornly persist in most real life organisations: *"Fashionable as it is to espouse ideas of organisational equality, the fact is that work itself is not all equal or the same. Work differs in respect of the state of mind of the person doing the work..... but it also differs in itself, in the decisions it involves, and the discretion exercised in making those decisions. "* [106]

The Brunel work defined a series of discrete, qualitatively different strata of work, which requisitely need to be carried out in organisations, which may or may not coincide with the manifest statement of hierarchy and grades: *"It is clear that these different work strata have important implications for authority and for the different capacities of individuals in organisations, particularly the way in which the capacity of one person may develop through time..... if the work strata argument is valid, it provides a more fundamental reason for the persistence of hierarchical structure than the Weberian ones of control and predictability. "* [107]

If employment hierarchies are still with us because of their convenience in setting up accountability systems and because they are founded upon an actual, if implicit, hierarchy of work, they are intrinsically neither good, bad nor indifferent. The critics of hierarchy frequently confuse the accountability structure with the way in which hierarchies can undoubtedly be abused or exploited by the people who occupy roles within them. Thus, for example, it is possible for similar hierarchies in similar organisations to be operated by different managers in either a participative or authoritarian manner. There is nothing inherent in the basic nature of an organisational hierarchy which automatically predisposes it to be oppressive:..... *"It is merely an accountability and authority setting for the actors. "* [108]

Critics also frequently claim that hierarchies inhibit creativity and communication. The hierarchy is also not in itself a means of restraining initiative; the scope of individual roles can be broad or narrow: *"It is quite obvious that discretionary limits to a role can be specified so that the individual is expected to deal with new situations".* [109] Clear accountability structures usually improve communication. The Brunel work also showed that it is a mistake to regard the hierarchy as a "closed" system: *"on the contrary, the hierarchy provides one very concrete way of designing organisations to react to and*

affect their environment." [110] The hierarchy is not inherently democratic or undemocratic: *"the democratic nature of a management hierarchy depends on the representative systems which are built up around it and woven into it:..... the impact that the organisation 's members or public are able to have on it is a function of the way representatives are related to it. "* [111]

The fourth proposition is intended to counter the common, yet curious, assertion, by many observers of organisational life and some managers, that, unlike the situation in virtually any other field of human endeavour, the quest for clear definitions of concepts and a common language in which to debate different ideas about organisation, is somehow limiting and inhibiting to the "organic" creativity and flexibility of an organisation and the people who work in it.

The evidence, as in other fields, shows the contrary: the Brunel research demonstrated repeatedly that the richness, variety and complexity of organisational roles is greater than commonly believed: it is only when the content and boundaries of different roles and organisational models are explored and clearly understood by people in the local situation that there can there be true freedom for individuals to grow into and beyond them and to openly debate, using a common language, the development of different and more requisite organisational arrangements. But it is important that boundaries should be negotiated: *"In general, people in roles do not want to be limited in how they carry out their tasks, the way they use their skills and the imagination they bring to bear; to this extent they want to be trusted. But they do want to be clear about the limitations on their autonomy and freedom to act, to be given some context for the trust relations:...they want clarity about limits because they will be held accountable for their actions ".* [112]

In addition to the four propositions, Maureen concluded her thesis with an important note about the crucial importance of recognising that much of the objection to hierarchy is because of the understandable fear of coercion: *"What worries most commentators is the implicit inequality of discretion at work, whether the structure is a managerial hierarchy or not. "* To overcome this *"it is necessary that members of an organisation legitimise the organisation structure and their place in it. "* It is crucial that hierarchies should be designed to minimise their potential for being misused by the unscrupulous: hence the importance of boundary-defined concepts, legitimising the executive structure, and the installation of representative and legislative systems to counter any tendency towards tyranny.

Conclusion

The "New NHS" provides an exciting opportunity to focus on improvement of the health of the population, clinical effectiveness, and integrated care. However, the pursuit of quality is a journey which can only be sustained by good management and well-designed organisational processes and structures. The development agenda for the NHS therefore requires the systematic gathering, assessment, and promulgation of good evidence of

effective organisational design and management practice on a similar basis that now proposed for clinical effectiveness.

The Brunel HSORU had a considerable influence on the development of the NHS in the 1970s and 1980s. The principal reason for its success was that it had derived generally applicable, boundary-defined, organisational concepts from its practical work *with* the wide range of professionals who worked at the sharp end of the Service. The social analytic method ensured, for the most part, that the models had at least some validity for those who were expected to implement them. The developmental approach ensured that ideas could be tested and progressively modified. This methodology is a sound basis for further research on organisational design.

Because the HSORU concepts were derived from the experience of those doing the work, they have stood the test of time. Their evidence-based foundation ensured that they are still relevant to the requirements of the NHS beyond the millennium. The social analytic methodology is still relevant both to research and the achievement of practical and constructive change. The research undertaken in BIOSS and Glacier is clearly also relevant beyond the NHS to improve the functioning of any organisation and social institution, particularly now that notions of a "stakeholder society" are again beginning to gain ground.

A comparison of the 1974 and 1990 reorganisations of the NHS has much to teach us about the way in which constructive change in organisations can be achieved and sustained. The 1974 reorganisation took time to evolve because it was substantially built upon accumulating *evidence* from the Service and testing the models which were most likely to be effective. The models were based on a "bottom up" analysis of the functions of the Service on which its organisational skeleton could be hung. Form followed function.

The 1974 solution was not perfect and, like all other reorganisations, it was constrained by political compromise. However, it was capable of progressive adaptation and improvement in 1982 and 1983. In comparison, the 1990 "reforms" were driven by a political ideology based on the market and considerations which were not seen to be focussed on the fundamental purpose of the NHS to promote health and better health care. The available evidence suggested that the changes would be unlikely to promote more effective health services and were alien to the values on which the NHS was founded. It was therefore difficult for even the more positive aspects of the change programme to command the support of the majority of professional opinion within the Service.

The development agenda for the NHS, as it approaches the new millennium, is an exciting challenge for most of the professionals and managers who remain strongly committed to its values and objectives. There is now an opportunity not only to promulgate evidence-based clinical practice, but also the research experience of organisational design and management practice which have accumulated over the

previous fifty years. If this experience is not harnessed and implemented, clinical practice will not be as effective as it could be. The *New NHS* therefore requires mechanisms to gather and promulgate the best of evidence-based management practice in a way which is consistent with the promotion of clinical excellence.

The Brunel work also has a continuing relevance to the structuring of the full spectrum of human organisations and social institutions. Ideologies and values are of course crucial in creating and sustaining organisations. An understanding of the values which drive any social enterprise is essential to the development of that enterprise. But values must be supported by evidence-based and practical solutions to organisational design which are directly linked to the purpose of the organisation, sensitive to its culture and which can be tested and progressively modified in action. As Maureen Dixon put it, prophetically, in 1976: *"In the organisational field, as in many others, too little attention has been paid to (evidence-based) action, too much to beliefs..... It is in reversing this trend that constructive developments in organisational design will rest in the future. "* [113]

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- helping to select his/her subordinates
- inducting them into their roles
- assigning work and allocating resources to them
- keeping informed about their work and helping them to deal with any problems; and
- appraising their performance and ability and deciding on any merit review.

To carry this accountability, managers need to have authority to:

- exercise veto on who is appointed to subordinate roles:
- decide types of work assignment -who shall carry out which type of assignment;
- decide effectiveness appraisal and decide any merit review; and
- decide that a subordinate should be removed from *role* - no longer work for them.

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